ECONOMY & AGRICULTURE
MAINS SPECIAL
2024

YEARLY COMPILATION
(MAY 2023 - AUGUST 2024)

- Subject wise segmentation
- User friendly layout
- Infographic aid and interactive elements

Comprehensive Current Affairs Coverage for Mains 2024

CONTENT

ECONOMY

EMPLOYMENT, LABOUR, AND SKILL DEVELOPMENT

Periodic Labour Force Survey (PLFS)

News Excerpt:

The latest Periodic Labour Force Survey (PLFS) released by the **National Statistical Office (NSO**) shows shifts in India's **labour market dynamics** and the record-**low unemployment rate**.

National Statistical Office (NSO)

The Statistics Wing, re-designated as NSO, consists of the **Central Statistics Office (CSO)** and **National Sample Survey Office (NSSO).**

- It operates under the **Ministry of Statistics and Programme Implementation**.
- It is responsible for collecting, analyzing, and disseminating official statistics, providing crucial data on various aspects of the Indian economy, society, and demographics.

Labour Force Participation Rate (LFPR)

- The labour force participation rate is a measure of the proportion of a country's **working-age population** that engages actively in the labour market, either by **working or looking for work**.
- It indicates **the size** of the supply of labour available to engage in the production of goods and services relative to the population at working age.

Unemployment rate and rise in labour force participation:

- The latest Periodic Labour Force Survey (PLFS), released last month by the National Statistical Office (NSO), shows the unemployment rate at **3.2 %** during the 12 months from July 2022 to June 2023— the lowest recorded since the NSO started the survey in April 2017.
- Unemployment declined both in **rural as well as in urban** areas.
- The quality of employment has declined continuously over the past few years, as wage employment, which is the better form of employment, is at its lowest level since the survey started in April 2017.
- The data also shows a steady rise in the **Labour Force Participation Rate (LFPR)** to 57.9 % in 12 months to June 2023 from 49.8% between July 2017 and June 2018.
- That means currently, **three out of five** working-age Indians — between **15 and 59 years** old are **looking for work.**

Increase in self-employment:

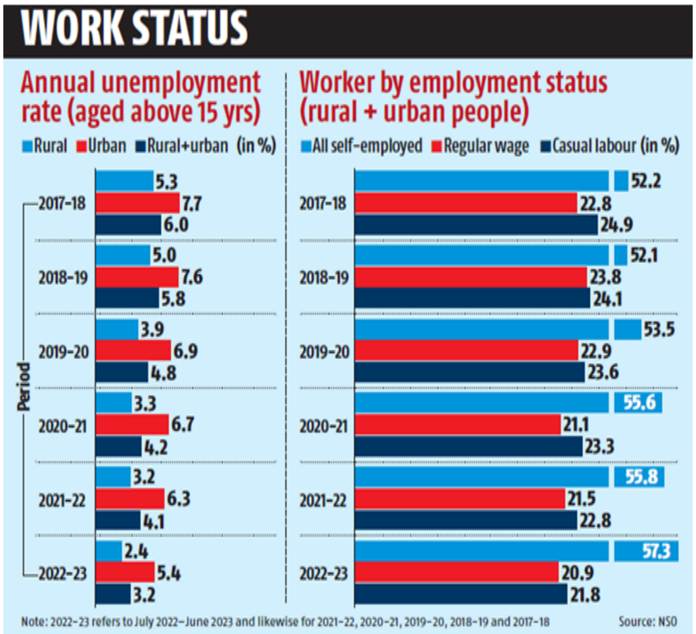
- The share of self-employed people increased to **57.3 %** during July 2022 to June 2023, from 55.8 % in the previous 12-month cycle and 52.2 % in the period between **July 2017** and June 2018.
- The increase in LFPR and the fall in unemployment led to a rise in self-employment, including **unpaid household** work and small business enterprises.
- **Quality of employment** has declined with a decrease in wage employment, while self-employment has increased to **57.3%.**
- There is a substantial increase in the **share of women in agriculture**, reaching 64.3% in 2022-23, possibly driven by pandemic-induced distress and economic slowdown.
- Government initiatives like **Mudra Yojana and PM SVA Nidhi** are facilitating the growth of family enterprises, contributing to the rise in self-employment.

Concerns about the informal sector sustainability:

- Despite positive indicators, concerns remain about the informal sector's sustainability and **slow formal job creation.**
- The World Bank lowers India's growth forecast, emphasizing challenges in the informal sector and **low female labour force** participation.

Way Forward:

India's latest PLFS reports a record-low 3.2% unemployment, attributing it to a rise in self-employment.



Quality of employment has declined, with wage employment at its lowest level. Despite positive trends, concerns persist about the informal sector's stability and a slowdown in formal job creation.

On Unemployment in Indian States

News Excerpt:

A recent report released by the **International Labour Organization (ILO) and the Institute for Human Development (IHD)** revealed that two out of every three unemployed individuals were young graduates, highlighting the need for urgent policy intervention.

An analysis of unemployment:

- This analysis looks at unemployment in the major States of India — **excluding the Union Territories** —among individuals aged 15 and above as measured by the **Usual Principal and Subsidiary Status (UPSS)**, utilizing data from **the Periodic Labour Force Survey (PLFS) of 2022-23.**

- Goa has the highest unemployment rate (around 10%) among Indian states in 2022-23, over 3 times the national average (3.17%).
- Interestingly, four of the top **five States—Goa, Kerala, Haryana, and Punjab**—are comparatively richer states.
- Most northern and southern states (**except Karnataka)** have **unemployment rates higher than the national average.**
- Larger states **have lower rates,** like 3% in **Maharashtra, 2.4% in Uttar Pradesh and 1.6% in Madhya Pradesh, bringing down the national average**.
- However, this creates an issue:
    - Most States with **unemployment rates below the national average** also **have per capita incomes below the national average**, except **Maharashtra and Gujarat.**

The determinants of unemployment:

- **The trend line drawn through the data is downward-sloping**, indicating that there exists a negative relationship between the two; in States where a large proportion of the labour force is engaged in self-employment, the unemployment rate is low.
    - States with large **informal sectors can absorb more job seekers**.
    - A large proportion of informal self-employment is accounted for by agriculture and the rural economy.
- There is a **positive relationship** between **urbanization (share of the urban labour force) and unemployment rates.**
    - Urbanized states have **smaller informal sectors to absorb job seekers compared to rural areas.**
- Urbanized States have **smaller agrarian and agrarian-dependent sectors**, which means they have a **relatively smaller source of informal jobs available.**

On education and employment:

- There is a clear **positive relationship between education levels (share of graduates in the labour force) and unemployment rates across states.**
    - **Kerala,** for instance, has a highly educated labour force—30% of the labour force are graduates—but faces high unemployment.
    - **Gujarat and Maharashtra** have relatively lower share of graduates in their labour force—roughly 14% and 20%, respectively.
        - Hence, they have lower unemployment rates in spite of being richer and more urbanized.

Potential reasons include:

- A mismatch between **skills acquired by graduates** and the requirements of **growing modern sectors.**
    - o This necessitates a focus on teaching infrastructure and standards.
- Higher employment aspirations among graduates who seek high-wage jobs aligned with their qualifications, rather than informal work.
- As economies develop, they **experience a reduction in the role of agriculture**, an **increase in urbanization**, and **higher educational attainment levels.**
    - These structural changes put **upward pressure on unemployment rates** by reducing informal employment opportunities and increasing the supply of educated job seekers.

Institute for Human Development (IHD):

- It was established in 1998 under the aegis of the **Indian Society of Labour Economics (ISLE).**
- It is a **non-profit autonomous institution** that conducts studies on labour and employment, poverty, health and nutrition, education, and other aspects of human development.
- It **aims** to contribute towards building a society that fosters and values an inclusive social, economic and political system that is free from poverty and deprivations.

International Labour Organization (ILO):

- The ILO was created in **1919** as part of the **Treaty of Versailles,** which ended World War I.
- In **1946**, the ILO became a **specialised agency** of the **United Nations.**
- It is devoted to promoting **social justice** and internationally recognised **human and labour rights**, pursuing its founding mission that labour peace is essential to prosperity.
- At present, the ILO has 187 Members. India is a founder member of the Organisation.
- A unique feature of the ILO is its **tripartite character.**

Periodic Labour Force Survey (PLFS):

- **The National Sample Survey Office (NSSO)** brings out the Periodic Labour Force Survey (PLFS).
- **The objective of PLFS is primarily twofold:**
    - To estimate the **key employment and unemployment indicators** (viz. **Worker Population Ratio, Labour Force Participation Rate,** Unemployment Rate) in the short time interval of three months for the urban areas only in the **'Current Weekly Status' (CWS)**.
    - To estimate employment and unemployment indicators in both 'Usual Status' (ps+ss) and CWS in both r**ural and urban areas annually.**
- The Periodic Labour Force Survey (PLFS) also estimates **Labour Force Participation Rates (LFPR), Worker Population Ratios (WPR), Unemployment Rates (UR), and other related statistics.**

ASUSE Report

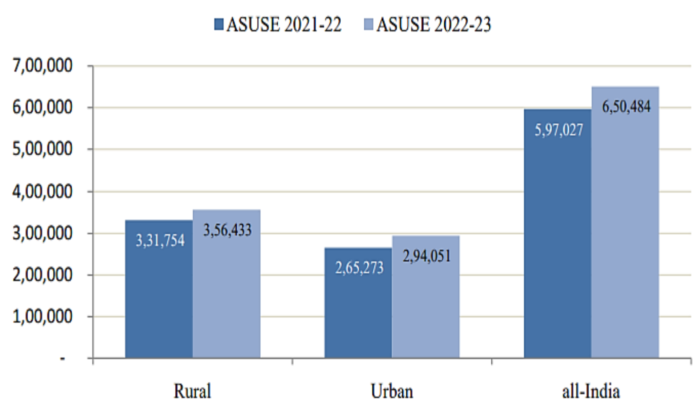
News Excerpt:

The Ministry of Statistics and Programme Implementation (MoSPI) released the latest Annual Survey of Unincorporated Enterprises (ASUSE) report for 2022-23.

Key Highlights of the Survey:

- **Uttar Pradesh, West Bengal,** and **Maharashtra** had the **highest share of informal sector enterprises** in both rural and urban areas for 2022-23.
- Notably, the **share of informal sector enterprises** declined in several states post-pandemic, including **Gujarat, Haryana, Karnataka, Kerala, Madhya Pradesh, Tamil Nadu, and West Bengal**.

Figure 1: Estimated Number of Establishments (in '00)

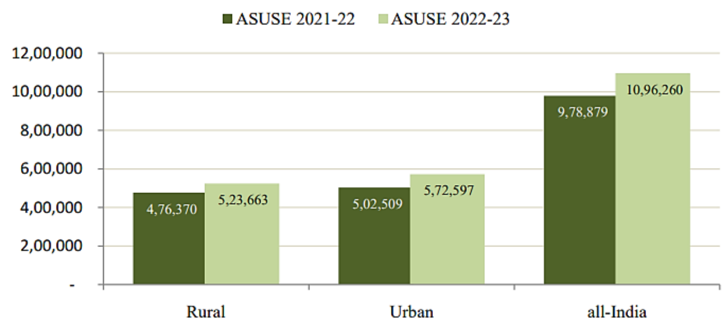


- State-wise data indicates that **Uttarakhand, Assam, Chhattisgarh, Delhi, and Jammu & Kashmir** had the **lowest share** of informal sector enterprises.
- However, **Delhi saw a significant increase**, with its share rising to **1.43% in 2022-23** from 0.64% in 2021-22.

Employment Generation

- **In 2022-23**, over **10.96 crore workers were employed** in the unincorporated non-agricultural sector, including working owners, hired workers, unpaid family members, and others.
- Of these, **5.72 crore were from urban areas**, and **5.24 crore** were from **rural areas**. Comparatively, 9.79 crore workers were employed in 2021-22, with 5.03 crore from urban areas and 4.76 crore from rural areas.

Figure 2: Estimated Number of Workers (in '00)



Significance of The Sector

- The unincorporated non-agricultural sector is crucial to the Indian economy, significantly **contributing to employment**, **Gross Domestic Product**, and the overall **socio-economic environment**.
- This sector supports the incorporated sector by acting as **suppliers and service providers**, forming an integral part of the **domestic value chain**.

Resilient Growth of the Sector:

- The results highlight the resilience of the unincorporated sector following the **COVID-19 pandemic**.
- The **total number of establishments** in the sector **increased** from 5.97 crore in 2021-22 to **6.50 crore in 2022-23**, representing a 5.88% annual growth.
- During this period, the **Gross Value Added (GVA)**, a key indicator of economic performance, saw an **annual growth of 9.83%**.
- **Major contributors** to this GVA growth were the **manufacturing** and other services sectors, with **manufacturing GVA increasing by 19.14% annually** and **other services GVA growing by 18.90%**.

Expanding Labour Market

- The unincorporated non-agricultural sector **employed about 11 crore workers** from October 2022 to September 2023, up from 9.8 crore in 2021-22, showing a healthy labour market growth of 7.84% annually.
- The **other services sector** saw the **maximum annual growth in employment (13.42%)**, followed by the **manufacturing sector (6.34%)**.
- The survey shows that the **average annual earnings** for **informal workers** rose to **Rs. 1,10,982 in 2022-23** from Rs. 1,06,381 in 2021-22, reflecting **improved wage conditions** in the informal sector.

Improved Productivity:

- **Gross Value Added (GVA) per worker**, a measure of labour productivity, rose to **Rs. 1,41,769 in 2022-23** from Rs. 1,38,207 in 2021-22.
- During the same period, the **Gross Value of Output (GVO) per establishment** increased from Rs. 3,98,304 to **Rs. 4,63,389**, indicating increased productivity with more efficient use of resources, including labour, which is critical for sustained economic growth and competitiveness.

Asia-Pacific Employment and Social Outlook Report 2024

News Excerpt:

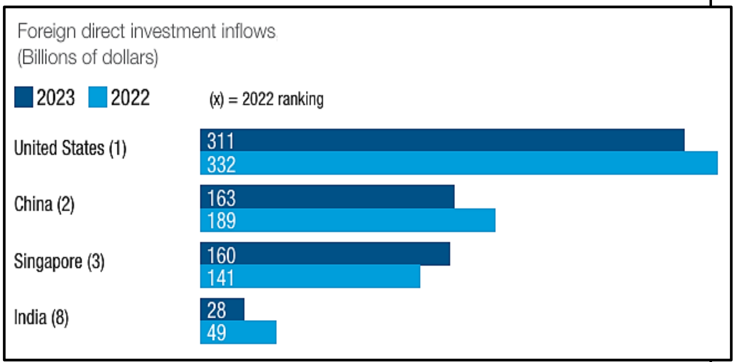
The **International Labor Organization (ILO**) has released the annual **Asia-Pacific Employment and Social Outlook 2024.**

About the report:

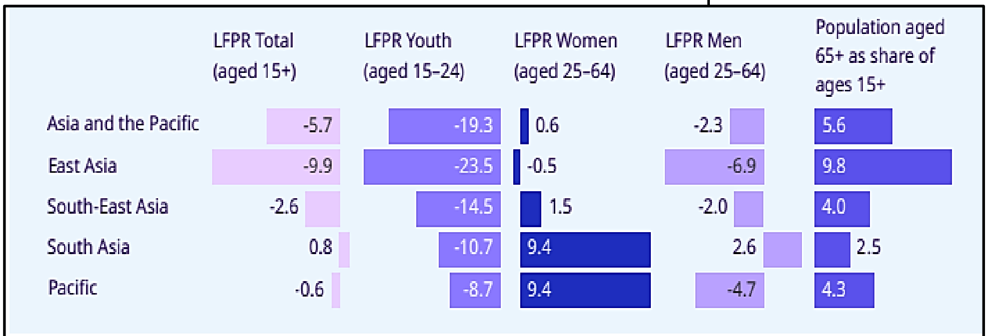
- This is the **fifth edition** of the report.
- It pulls together the **most recent statistics to depict the state of the labour market** and its impact on the 3.4 billion people living in the **Asia-Pacific** region.
- The **2024 report** examines the **implications of population ageing for labour markets and society.**

Key Findings of the report:

- **Stable Labor Market Amid Subdued Growth**: Employment in Asia and the Pacific is projected to grow at its long-term average rate, with **unemployment remaining nearly unchanged.**



- **Gender Inequality in Employment:** Women's employment rates are significantly lower than men's, particularly among youth, where **young women are almost three times more likely to be NEET (not in employment, education, or training).**
- **Low Overall Unemployment, High Youth Unemployment:** The **region's unemployment rate is low (4.2%in 2023) as compared to the global unemployment rate,** but youth unemployment remains high at 13.9%.



Source: ILOSTAT, ILO modelled estimates, November 2023.

- **Need for Stronger Labor Market Performance:** Widespread decent work deficits persist, with slow progress in reducing informality and working poverty.
- **Unequal Productivity Growth:** From 2004 to 2021, productivity growth led to increased labour income, but this **growth was uneven across countries**. **Most workers remain far from the labour income levels of high-income countries.**
- **Declining Productivity and Income Growth:** Over the past decade, **growth rates for labour productivity and income have declined.** Enhancing productivity requires revitalizing structural transformation and investing in physical and human capital and technological progress.
- **Insufficient Decent Work Opportunities:** The **lack of job opportunities** that meet decent work criteria **threatens social justice and the labour market outlook in the** region.

Labour force participation in the region:

- **The region's labour force participation rate (LFPR) fell from 67.0 per cent in 1991 to 60.9 per cent in 2023** and is projected to decline further over the coming years.
- Increased educational attainment and ageing populations are among the main drivers of declining LFPR. However, the **absolute employment levels have been steadily growing, reaching 2 billion in 2023.**
- LFPR in South Asia is 54%, 63 % in the Pacific and 66 % in East and South-East Asia. **South Asia's low aggregate LFPR is largely due to a significant gender gap: 77% for men and 31% for women.**

Challenges highlighted by the report:

- **Ageing population:** The region's population is projected to age as much over the next 27 years as the populations in high-income countries worldwide have aged over the past 60.
- **Rise in dependency ratio:** The economic dependency ratio, defined as the ratio of those not employed to those employed among the region's working-age population (aged 15 years and above), is projected to **rise** from 0.72 in 2023 to 0.90 in 2050.

Policy implication for Promoting Full and Productive Employment and Decent Work suggested in the report:

- **Remove Employment Barriers:** Address job gaps and gender disparities by easing unpaid care burdens and enhancing access for women and disadvantaged groups.
- **Support Disadvantaged Groups:** Implement programs for young people, older workers, and persons with disabilities to improve their employment prospects and social justice.
- **Facilitate Migration:** Manage migration to benefit both origin and destination countries, leveraging migrants' typically higher employment rates.
- **Enhance Labor Productivity:** Invest in technology and skills to boost productivity and support structural transformation, which is essential for economic growth and higher labour incomes.

International Labor Organization (ILO)

- It was created in 1919 as part of the **Treaty of Versailles.**
- **AIM:** To promote social justice and internationally recognized human and labour rights, pursuing its founding mission that social justice is essential to universal and lasting peace.
- **India is a founding member of the International Labor Organization.**
- The General Assembly of the ILO **meets every year** in June.
- **Headquarters:** Geneva, Switzerland

GROWTH AND DEVELOPMENT

India's gold demand

News Excerpt

In the **second quarter of 2023**, the demand for gold in India **fell by 7%** from last year, according to a report by the World Gold Council.

About

- The **World Gold Council** is an organization composed of major global gold **mining companies**. Its **primary role** is to promote **responsible mining** practices and establishing the Conflict-Free **Gold Standard**.
- A committee on **'Transforming India's Gold Market'** was constituted by **NITI Aayog** to recommend measures for tapping into the potential of the sector and provide a stimulus to exports, economic growth and employment. A report titled 'Transforming India's Gold Market' was finalized and submitted to the Government for consideration in February 2018.
- **Mandatory Hallmarking** of Gold Jewelry has come into force from **2021.** Recently, the Ministry of Consumer Affairs order stated, only hallmark unique identification number **(HUID)** Hallmarked jewelry is to be sold by the BIS registered jewelers from 01 April 2023.

Gold market in India

- **According to IBEF**, as of February 2021, India's gold and diamond trade contributed **~7.5%** to India's Gross Domestic Product **(GDP)** and **14%** to India's total **merchandise exports**.
- India's gems and jewelry market size was at **US$ 78.50 billion** in FY21, and exports reached US$ 39.14 billion in 2021-22, a **54.13% rise** from the previous year.
- **Cumulative FDI inflows** in diamond and gold ornaments stood at US$ 1,213.06 million between April 2000-March 2022, according to the Department for Promotion of Industry and Internal Trade **(DPIIT).**
- The gems and jewelry sector are likely to **employ ~8.23 million** persons by 2022, from ~5 million in 2020.
- India's gold demand dropped to **158.1 tonnes** in the April-June quarter of 2023 from 170.7 tonnes in the same quarter of the previous year.
- The **gold demand value** in Q2 of 2023 was Rs 82,530 crore, an increase of 4 per cent in comparison with Rs 79,270 crore in the April-June period of 2022.

Causes of the decline in demand

- **High gold prices:** The affordability of gold was impacted by high prices in the second quarter of 2023, which led to the **decline** in demand.
- **2000 rupee note factor**: Announcement by RBI, regarding gradual **withdrawal of 2000 rupee** note from circulation led to panic buying of gold using the notes. Gradually the demand declined.
- **Central bank behavior**: Due to political and economic circumstances, **Central Bank of Turkey** was the **net seller** of gold in first quarter of 2023 and resumed purchasing in June. Hence there was a slowdown in buying from central banks, including the RBI.

Gold related schemes

- **Gold Monetization Scheme (GMS):** Aims to bring in **circulation** the gold held by households and institutions, simultaneously reducing the country's reliance on the import of gold.
- **Revamped Gold Deposit Scheme (R-GDS):** At least **1 gram** of Gold and **no maximum limit**. Interest and capital gains **exempted** from tax.
- **Revamped Gold Metal Loan Scheme (GML):** Instead of cash Jeweler borrows gold. The **sale proceeds** of the jewelry made, settles the GML.
- **Sovereign Gold Bond Scheme:** It seeks to encourage people to buy gold bonds instead of actual gold. The gold bonds will be **denominated** in multiples of gram of gold. Limit is from **two grams to 500 grams** per person per fiscal year.
  - **Gold Coin and Bullion:** The government issues gold coins.

Paper gold:

- It refers to gold investments held in a **paper or digital form**, ownership of the precious metal without direct physical possession. Forms of Paper Gold are -
- **Gold Exchange Traded Funds**: These are **investment funds** that trade on stock exchanges.
- **Digital Gold:** When purchasing gold online, the buyer's acquired gold is stored in vaults managed by the seller, and it can be easily bought or sold using **digital platforms**.
- **Sovereign Gold Bonds (SGBs):** These are denominated in grams of gold and serve as an alternative to physical gold due to their ability to mitigate the risk of theft.
- **Gold Mutual Funds:** These funds typically allocate their assets to gold ETFs or foreign gold funds.

Government's Initiatives:

- India has signed an **FTA with the UAE** which will further boost exports and is expected to reach the target of US$ 52 billion.
- The Government has **reduced custom duty** on cut and polished diamond and colored gemstones from 7.5% to **5% and NIL**.
- The **Revised SEZ Act** is also expected to boost Gems and Jewelry exports.
- The government has **reduced import duty** for Gold & Silver (from 12.5% to 7.5%) and Platinum & Pallidum (from 12.5% to 10%) to bring down the prices of precious metals in the local market.
- Indian Government made **hallmarking mandatory** for Gold Jewelry and Artefacts.
- **Amendment** under the Prevention of Money Laundering Act **(PMLA)**, notifying dealers in precious metals and stones, will maintain records of cash transactions worth Rs. 10 lakh or more cumulatively with a single customer.

Gold dominated economy:

Positives	Negatives
• **Stability:** Gold is considered a stable asset over time. This translates to a stable value of currency over the long term, which gives confidence to businesses and investors. • **Cross border trade:** Gold provides a common standard across borders, hence facilitates international trade. It provides predictability by reducing uncertainties. • **Savings and Simplicity:** Gold backed currency provides a hedge against financial crises, relatively easy to understand and traditionally some part of savings of households is in gold. • **Control of Inflation:** Supply of gold is limited, making its production stable. It prevents the governments from printing excess money. Thereby controlling inflation.	• **Risk of Deflation:** Individuals and businesses delay their spending in hopes of even lower prices in the coming future, which brings the risk of deflation. • **Affects global interactions:** Countries that have flexible monetary system and fixed gold standards often found economic engagement difficult. • **Prone to geopolitical tensions:** Changes in geopolitical events – turmoil, regime change, gold mining, disasters affect the supply of gold. This led to the country's dependency on global events and affects sovereignty. • **Lack of flexibility:** In times of recession and financial crises, the government may find it difficult to bring out changes in monetary policy. Because of the limited supply of gold.

Gold vs Investment:

- Demand and investment in gold is driven by **safe-haven appeal**, **firstly** it holds onto its value or even appreciate during **volatilities and uncertainties** in the market. **Secondly** gold could be converted into jewelry at a later stage. Individuals, households and businesses prefer to store their wealth in gold.
- Another factor for investment in gold is its **liquidity**. It can be readily bought and sold in different markets in different **geographical regions**.
- Investment in general is a broad term that encompasses a wide range of assets **- stocks, bonds, real estate, commodities, SIP's, mutual funds, etc.**

All these have different levels of risks and provide different returns, the **level of risk** is usually **directly proportional** to the **level of returns**. Risk in investment can be negated by holding **diverse portfolio**.

- In a nutshell, the debate of investment in gold vs investment in general depends on the **financial goals** and risk tolerance capacities of individuals.

Way forward:

- **Committee of NITI Aayog** in its report **'Transforming India's Gold Market'** recommended **five focus areas**: Make in India in Gold, Financialization of Gold, Tax and Duty Structure, Regulatory Infrastructure, Skill Development and Technology Upgradation.
- With gold playing such an important **role** in the Indian society and Indian economy, there is a need for comprehensive **gold policy.**

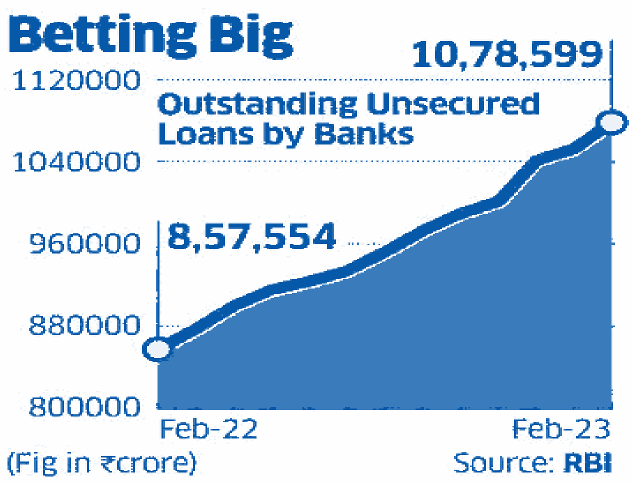
Rising Unsecured Loans in India

News excerpt:

Banks in India are seeing a rise in stress related to unsecured personal loans.

More details on the news:

- The risk of Indian banks' unsecured **retail loans** is rising as lending to borrowers with overdue debt has increased.
- The share of loans to borrowers with **weaker risk profiles** has risen along with an increase in retail borrowers' leverage.



  - This share with overdue loans rose to **23%** in fiscal year 2022-23 from 12% in fiscal 2018-19.
- As per **RBI data**, the share of unsecured loans in their non-food, non-agricultural portfolio, after large corporates, home loans, and loans to **NBFCs**, has risen from 5.6% in March 2019 to 8% in April 2023.
- Additionally, the **credit card segment**, although smaller in size, has also witnessed a doubling in outstanding balances from Rs 91,913 crore to Rs 2 lakh crore during the same period.

Secured VS.	Unsecured
Guaranteed by collateral, such as a home	Not guaranteed by any asset
Low Interest Rate	Higher Interest rate
Higher Credit limit	Lower credit limit
If borrower defaults, lender can seize collateral	More difficult to get approved by lenders
Example: Home mortgage or car loan	Example: Credit card

What are Unsecured Loans?

- Does not require any type of **collateral**.
- **Riskier** than secured loans for lenders, so they require higher credit scores for approval.
- If a borrower defaults, the lender may commission a debt collection agency or take the borrower to court. E.g.-Credit cards, student loans, and personal loans.

Benefits of unsecured loans:

- **Promote entrepreneurship:** Unsecured loans can help aspiring entrepreneurs start and grow their businesses.
- **Financial Inclusion:** It promotes financial inclusion by providing access to credit for individuals and businesses who may not have valuable assets to use as collateral.
- **Faster approval processes**: The borrowers can access funds quickly in times of need, which can be vital for addressing emergencies.
- **Credit products diversification:** Unsecured loans contribute to a diverse range of credit products available in the market, giving borrowers a wider choice.
- **No collateral:** It does not require a customer to pledge assets as collateral. It means a customer is not at risk of losing property if he/she cannot repay the loan.

Challenges of unsecured loan:

- **Destabilize financial system:** A large number of borrowers defaulting on their unsecured loans can lead to significant financial losses for lending institutions, potentially destabilizing the financial system if left unchecked, also leading to a significant increase in **NPAs**.
- **Economic Inequality**: Uneven access to unsecured loans can contribute to economic inequality.
- **High-interest rates**: Due to higher interest rates, the borrowers may end up paying a significant amount in interest over the life of the loan.

- **Over-indebtedness of customers**: High availability of unsecured loans can lead to consumer over-indebtedness, impacting personal finances.
- **Default risk**: Since there is no collateral involved, lenders face a higher risk of default on unsecured loans.

Steps taken:

- The **RBI regularly monitors the financial health of banks and NBFC** to ensure they maintain adequate capital and liquidity to withstand shocks related to unsecured loans.
- RBI has asked the Banks and NBFCs to strengthen their internal **surveillance mechanisms** and address the build-up of risks.
- It has asked banks to monitor their unsecured **lending portfolios**, more specifically **credit cards**.

Way forward:

Unsecured loans can be a **double-edged sword** as they have the potential to spur growth and empower individuals, but the unchecked rise in unsecured lending can jeopardize financial stability.

- Strike **harmonious balance** through collaboration with international financial institutions to share best practices, **regulatory frameworks** for digital and online lending platforms to ensure compliance and implement **strict underwriting standards** to evaluate borrowers' creditworthiness.

Also, educate consumers about the potential consequences and safeguard them from abusive lending practices, and encourage financial institutions to offer affordable, small loan products to low-income borrowers.

RBI proposal to classify a borrower as a "Willful Defaulter"

News excerpt:

Banks are expected to witness a spike in willful defaults following the RBI proposal to classify a borrower as a willful defaulter **within six months of the account becoming a non-performing asset (NPA).**

More details on the news:

- The Reserve Bank of India has issued a draft paper for handling willful defaulters, wherein it has expanded the scope for regulated entities that can classify borrowers as willful defaulters, refined the identification process and mandates a review and finalization on willful default aspects within six months of an account being classified as NPA.
- The willful defaulters will be eligible for compromise settlements as per a June 2023 circular of the RBI, earlier they were kept out of this settlement.
- In 2019 the RBI, in its **'Prudential Framework for Resolution of Stressed Assets',** made clear that the borrowers who committed frauds/ malfeasance/ willful default would remain ineligible for loan restructuring.

Criticism of RBI's decision:

- The RBI's latest **'Framework for compromise settlements and technical write-offs'** is considered by some people as a "detrimental step that may compromise the integrity of the banking system and undermine the efforts to combat willful defaulters effectively".
- It not only rewards unscrupulous borrowers but also sends a distressing message to honest borrowers who strive to meet their financial obligations.
- According to the bank unions allowing compromise settlement for accounts classified as fraud or willful defaulters is an affront to the principles of justice and accountability.
- By allowing them to settle their loans under compromise, the RBI is essentially condoning their wrongful actions and placing the burden of their misdeeds on the shoulders of ordinary citizens and hardworking bank employees.
- The willful defaults have a significant impact on the financial stability of banks and the overall economy.
- Many in the banking sector are afraid that the new decision will not only lead to the erosion of public trust in the banking sector but also undermine the confidence of depositors.

RISE IN WILFUL

Bank	No. of Accounts	Amount
Nationalised banks	11,93	193,596
Pvt banks	2,332	54,250
SBI	1,921	79,271
PNB	2,231	41,353
Union Bank	1,831	35,623
BoB	2,220	22,754
IDBI Bank	340	24,192
Total	**16,883**	**353,874**

*Source: TransUnion Cibil *(As of March 2023) Amount in `crore*

Who are willful defaulters?

- 'Willful default' would be deemed to have occurred if the borrower has defaulted in meeting their repayment obligations to the lender even when they have the capacity to honour the obligations.
- A willful default happens when the borrower has not utilised the finance from the lender for the specific purpose for which finance was availed and has diverted the funds for other purposes without the knowledge of the bank.

Compromise settlement:

- Compromise settlement refers to a **negotiated settlement** where a borrower offers to pay, and the bank agrees to accept in full and final settlement of its dues an amount less than the total amount due to them under the loan contract.

- This settlement invariably involves a certain sacrifice by way of **write-off and/or waiver** of a portion of the lender's dues on a one-time basis.
- In India, banks had approved **several compromise settlements** running into hundreds of crores with huge reductions of outstanding payments or loans that will not be repaid by the borrowers – between 2000 and 2014, leading to huge losses for banks.
- The central bank also directed banks that willful defaulter can get fresh loans after 12 months of executing compromise settlement.

How willful defaulters affect the economy?

- **Impact on the Economy:** The impact of willful defaulters is not limited to the banking sector; it also extends to the broader economy and can stifle economic growth.
- **Affects the financial health of banks:** Deliberate default on loans directly affects the financial health of the banks.
- **Rising NPA:** Willful defaulters contribute to the rising Non-Performing Assets (NPAs) in the banking sector.
    - For example - Vijay Mallya, became a willful defaulter on loans exceeding Rs 9,000 crore, leading to a significant NPA issue for banks.
- **Trust erosion:** Willful defaulters erode the trust of banks and financial institutions.
    - Example - Nirav Modi, who was involved in a massive fraud at Punjab National Bank, is an example of how trust can be severely damaged.
- **Impact on the market:** When major business figures or companies are found to be willful defaulters, it can lead to a loss of investor confidence in the corporate sector, affecting stock prices and market stability.

Non-performing asset (NPA):

A non-performing asset (NPA) is a loan or advance for which the principal or interest payment remained overdue for a period of 90 days.

Way forward:

Minimizing willful defaulters in the Indian banking system requires a multifaceted approach. RBI needs to strengthen the regulatory framework, take swift and decisive actions against defaulters, and follow the due diligence process while approving loans. Also, it should establish whistleblower protection mechanism and robust monitoring system and utilize advanced credit scoring models.

Illicit Trade at 5% Of India's GDP

News Excerpt:

A recent **FICCI (Federation of Indian Chambers of Commerce & Industry)** Report based on data from international agencies states that the impact of India's illicit financial flows works out to around 5 percent of its GDP.

- As per a report released by FICCI CASCADE - **'Hidden Streams:** Linkages Between Illicit Markets, Financial Flows, Organised Crime, and Terrorism', the illegal economy in India has an overall score of 6.3 in India, higher than the average score of 5 of other 122 countries. In the organized crime segment, India has a lower score of 4.3 against the average 5.2.

What is Illicit Trade?

- **Selling of goods in violation of national/international laws**, which is meant to **cover goods that are illegal** due to their characteristics, as well as those that contravene laws by how they are produced, distributed, marketed, labelled, identified, certified, or sold.
- Illicit trade can **occur both in black markets and in legitimate markets**.
- Illicit trade boomed with the capturing of 3.5 tonnes of gold, 18 crore cigarette sticks and 90 tonnes of heroin during the last financial year.

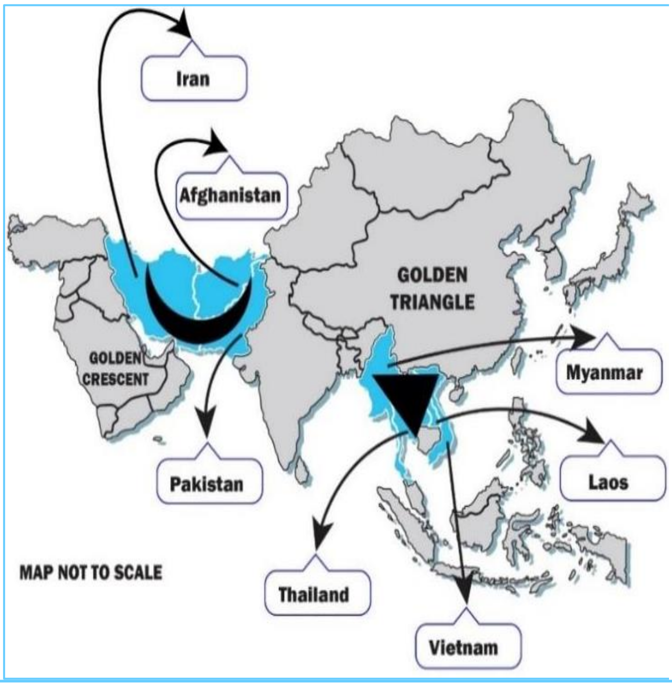
Forms of Illicit Trade in India:

- **Human Trafficking**: India is in a region where human trafficking continues to thrive. According to India's **National Crime Records Bureau (NCRB),** over 6,500 human trafficking victims were identified in India during 2022.
- **Wildlife Trafficking**: India is not only a major source, but also a transit and a destination country for

The **Golden Triangle** and the **Golden Crescent** are two of the safest havens for illicit drug manufacturing and trading on the planet.

Golden Crescent: Iran, Pakistan and Afghanistan

Golden Triangle: Myanmar, Laos and Thailand

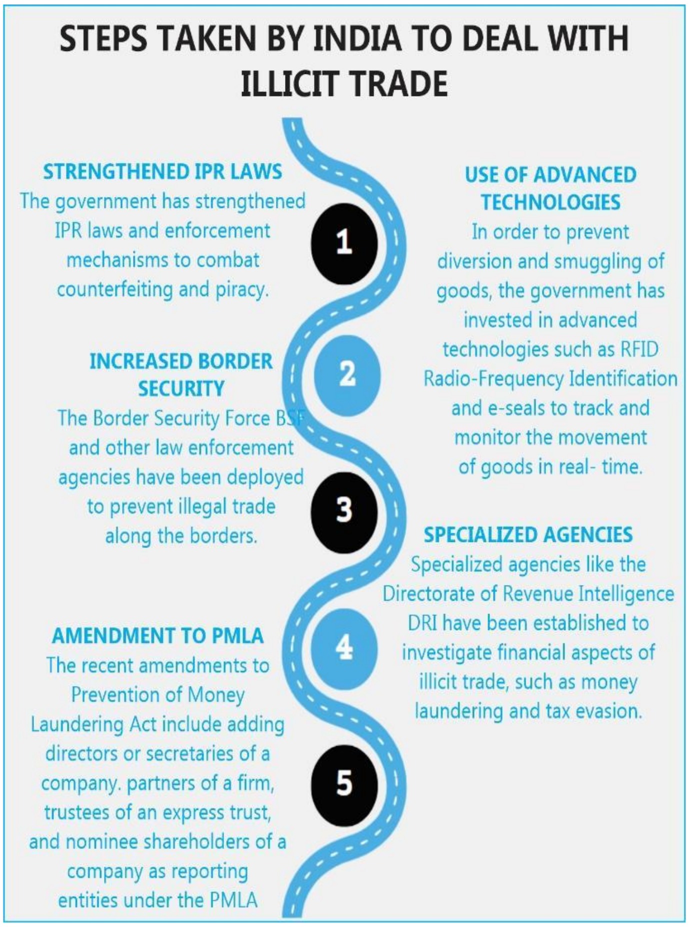


trafficked wildlife and wildlife products. The illegal trade in endangered species and their bodyparts, such as ivory, rhino horns, and tiger bones, is a significant problem.

- **Illegal Arms Trade**: The proliferation of **small arms and ammunition** is a major issue that threatens the security of India.
- **Money Laundering**: India is at significant risk of money laundering and terrorist financing.
  - Based on UNDOC estimates, when the Indian economy surpassed the $3 trillion mark in 2021, the quantum of money laundering in India can be estimated at $159 billion which is around 5 percent of GDP.
- **Counterfeit products**: These include fake or imitation versions of branded items such as **clothing, electronics, pharmaceuticals, and luxury goods.**
- **Smuggled items**: These involve the illegal import or export of goods, typically to evade customs duties and taxes. **Gold, electronics, narcotics, and wildlife products** are commonly smuggled items.
- **Illegal drug trade**: India is wedged between the world's two largest areas of illicit opium production, the **Golden Crescent and the Golden Triangle**. The production and distribution of drugs like heroin, cocaine, cannabis, and synthetic opioids remain major concerns.
- **Illegal alcohol**: On average 1,000 people die in India each year after consuming illegal liquor. **The unlicensed production and sale of illegal spurious alcohol can be a serious issue in many parts of India.**

Causes of Illicit Trade in India:

- **Demand:** Demand for banned or restricted goods such as narcotics, **wildlife products, and counterfeit pharmaceuticals fuels illicit trade.** E.g.- Demand for traditional medicines and luxury items drives illegal trade in **tiger parts and rhino horns**.
- **High taxes:** Products like **tobacco, alcohol, gold, and luxury goods** are taxed highly in India leading to smuggling and illicit production.
- **Widespread corruption:** Corruption among **government officials and law enforcement agencies** facilitates illicit trade.
- **Poverty:** Poverty and Unemployment can **drive people to engage in illegal activities** to make a living.
- **Weak law enforcement:** Particularly in **remote or border areas of our neighbours like Myanmar, Bangladesh**, Bhutan, Nepal as well and Pakistan makes it easier for illicit trade to flourish.
- **E-commerce platforms**: In recent years, **counterfeit trade conducted through E-commerce platforms** has played an increasingly important role in shaping illicit trade.



Impacts of illicit trade:

- **Economic Losses**: A substantial economic loss takes place to the economy due to illegal trade.
- **Revenue loss of government:** Smuggling of gold and electronics, like smartphones, leads to a loss of customs revenue.
- **Undermine legal businesses:** Counterfeit of illicit products such as alcohol and cigarettes can undermine the legitimate alcohol and tobacco industries.
- **Public health issue:** Counterfeit products such as pharmaceuticals and substandard medical devices pose severe public health risks.
- **Security threats:** Illicit trade can be linked to organized crime, terrorism financing, and other security threats. For example, the smuggling of arms and ammunition across India's borders can pose significant security challenges.
- **Ecological consequences:** Illicit trade in wildlife products, such as ivory and exotic animals, threatens biodiversity. E.g.- Deforestation, the growing of drug crops as monocultures, pollution of waters, illegal dumping sites of precursor chemicals, the high carbon footprint of in-house cultivation etc.
- **Social issues:** The availability of cheap, illicitly produced alcohol and drugs can contribute to alcoholism, drug abuse, and related health problems. It

also damages the livelihoods of local communities dependent on tourism.

- **Impact on SDG goals**: From smuggling, counterfeiting, and tax evasion to the illegal sale or possession of goods, services, humans, and wildlife, illicit trade is compromising the attainment of the UN SDGs in significant ways.
- **Undermine the intellectual property rights**: Counterfeit goods undermine the intellectual property rights of legitimate creators and innovators.

Global measures to deal with illicit trade:

- In 2013, the **OECD** launched a **Task Force Countering on Illicit Trade**, which focuses on developing evidence-based research and coordinating international expertise in quantifying and mapping illicit markets.
- Since 2013, **the World Customs Organization** has produced a yearly report on illicit trade which uses seizure data and case studies to study illicit trade flows.
- In February 2020, **UNCTAD held a Forum on illicit trade**. One of the main foci of the event was to evaluate how illicit trade impacts negatively the Sustainable Development Goals.

Way Forward:

While India has made commendable progress in enhancing its security protocols and reducing crime rates over recent years, more needs to be done to fully eradicate illicit trade activities that pose significant threats to national security and economic stability.

India Finance Report- CAFRAL

News Excerpt:

The **Centre for Advanced Financial Research and Learning (CAFRAL)** recently published a report that said fintech lending was poised to exceed traditional lending by 2030.

Key points of the report:

- Fintech lending is **set to surpass traditional lending by 2030 for mid-small income.**
- This projection was a testament to the growing influence of technology in the financial sector and an indication of the evolving preferences of borrowers and lenders.
- According to the report, **of the 14,000 newly founded start-ups between 2016 and 2021, close to half belonged to the fintech industry.**
    - Fintech lending is projected to exceed traditional bank lending by **2030.**

- As the sector grows, customer needs and preferences for digital financial services, paired with better accessibility, would be the major factors for fintechs to rise above traditional bank lending.

Concerns:

- The **CAFRAL report highlighted** concerns such as usurious interest rates, unethical recovery practices, and data privacy issues, among others, in the backdrop of the rapid growth in digital lending.
- **Borrowers are often not aware of the total costs of borrowing.**
    - Information on the charges is not communicated to them upfront.
- **Another concern** is many fake/illegal apps in the marketplace.
    - Users downloading a lending app cannot verify whether it is legal or not.
    - Moreover, **there are many instances of third parties harassing** borrowers regarding the recovery of loans and bothering consumers at odd hours and by using physical and violent means.

CAFRAL:

- **The Centre for Advanced Financial Research and Learning (CAFRAL)** is a not-for-profit organization set up in 2011 as an independent body by the **Reserve Bank of India (RBI)** to promote research and learning in banking and finance.
- The **Governor of RBI is the Chairman** of the Governing Council of CAFRAL.
- CAFRAL seeks to develop into a world-class global institution for research and learning in banking and finance.

Way Forward:

- It has become imperative for fintechs **to invest in technology and systems** that can improve **digital lending processes** in practices such as **underwriting, cyber security, and data privacy.**
    - Lending practices of unscrupulous authorized players, who are many, often colour the perception of fintech lending.
    - Individually, fintech lenders constantly invest in technology, systems, and processes to overcome the challenges to improve efficiencies, underwriting, cyber security, and data privacy.
- Fintech lenders working in regulated environments follow the regulatory framework, including digital lending guidelines and a code of conduct on pricing and recovery practices.
- Self-regulation is necessary to protect customers' interests when the industry is expanding in scale.
    - Collectively, fintech lenders are setting higher standards for customer protection like the **FACE Code of Conduct and remitting FACE to monitor the market practices and take action if anyone breaks the rules.**

- The Fintech Association of Consumer Empowerment **(FACE)** Code of Conduct focuses on implementing responsible and ethical lending practices.

- With so much **industry diversity, innovation, scale, and speed, self-regulation is critical to customer protection.**

Consumption Expenditure Survey data

News Excerpt:

For the first time in about 11 years, the government released the broad findings of the **All-India Household Consumption Expenditure Survey (HCES**) carried out between August 2022 and July 2023.

About the news:

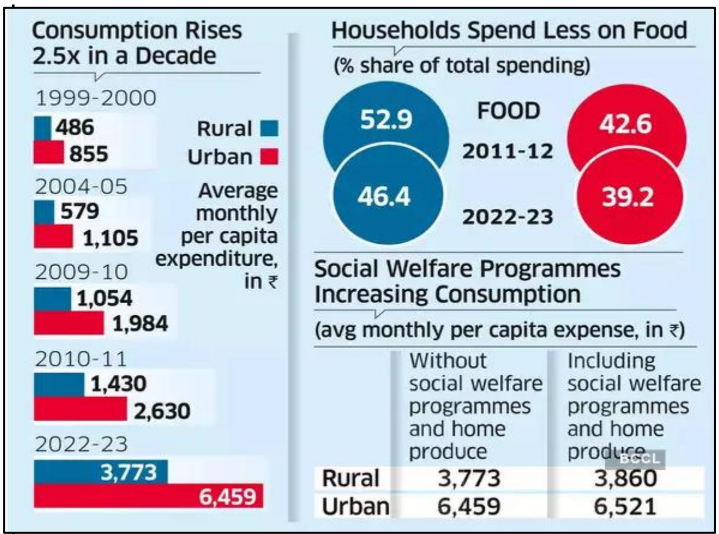
- The data will play a key role in **reviewing critical economic indicators**, including the Gross Domestic Product (GDP), poverty levels, and the Consumer Price Inflation (CPI).
- The HCES is usually conducted by the **National Statistical Office (NSO) every five years**, but the findings of the last Survey, conducted in 2017-18 soon after the demonetization of high-value currency notes and the implementation of the Goods and Services Tax (GST), were never released after the government cited **"data quality" issues.**
- The estimates of the monthly **per capita consumption expenditure (MPCE)** are based on data collected from **2,61,746 households**, of which 1,55,014 were in rural areas, spread over all States and Union Territories.

Details of the survey:

Overall Consumption Expenditure:

- The difference in average **monthly per capita consumption expenditure (MPCE)** between rural and urban households has narrowed to 71.2 % in 2022-23 compared with 83.9% in 2011-12, 88.2% in 2009-10, and 90.8% in 2004-05.
- The survey report does reveal that rural average monthly consumption spending per person increased to Rs **3,773 per month** in 2022-23 from **Rs 1,430 per person in 2011-12**, a jump of 164 %.
  - This is higher than the 146 % increase in urban average monthly consumption expenditure per person to Rs 6,459 in 2022-23 compared with Rs 2,630 per person in 2011-12.

Consumption-based on states: Among the States, the MPCE is the highest in **Sikkim** for both rural (₹7,731) and urban areas (₹12,105). It is the **lowest in Chhattisgarh,** where it was ₹2,466 for rural households and ₹4,483 for urban household members.



Expenditure on Food

- The proportion of spending on food has dropped to **46.4%** for rural households from 52.9% in 2011-12, while their urban peers spent just **39.2%** of their overall monthly outgoes on food compared with 42.6% incurred 11 years earlier.
  - This reduction could translate into a lower weightage for food prices in the country's retail inflation calculations.
- The MPCE numbers cited above do not take into account the imputed values of items received free of cost by individuals through various social welfare programs such as **the PM Garib Kalyan Ann Yojana (PMGKAY)** or **State-run schemes**, which were calculated separately.
- The average MPCE, at 2011-12 prices, was a tad higher when these items were included while excluding free **education and healthcare** sops — at ₹2,054 for rural households and ₹3,544 for urban homes.

Food spending

Share of cereals and food in average monthly per capita consumption expenditure decreased in both rural and urban areas

Period	RURAL % share of cereals	RURAL % share of food	URBAN % share of cereals	URBAN % share of food
1999-00	22.23	59.4	12.39	48.06
2004-05	17.45	53.11	9.63	40.51
2009-10	13.77	56.98	8.16	44.39
2011-12	10.75	52.9	6.66	42.62
2022-23	4.91	46.38	3.64	39.17

Expenditure on Non-Food Items:

Consumption expenditure on non-food items in both rural India (54 %) and urban India (61%) was mainly driven by a rise in the share of spending on conveyance, consumer services, and durable goods in 2022-23 as against 2011-12.

Observed realities:

- HCES revealed that the **share of food** in consumption had **reduced** to **46%** in **rural areas** and **39%** in **urban areas**.
  - That is probably true because of **rising income/expenditure** and the value of food consumption remaining the same or rising at a slower rate.
- **Scheduled castes** and **Scheduled tribes** are the **poorest** social groups. They are below the average. **OBCs** are near the **average.**
  - It is the **'others'** who are above the average.
- The **poorest citizens** are those who live in **Chhattisgarh, Jharkhand, Odisha, Madhya Pradesh, Uttar Pradesh, West Bengal** and **Meghalaya** — their MPCE is below the all-India average MPCE for rural areas.
- **Gujarat's score** is **slightly above** that of the all-India average MPCE in rural areas (Rs 3,798 vs Rs 3,773) as well as in urban areas (Rs 6,621 vs Rs 6,459).

Household Consumption Expenditure Survey (HCES):

- HCES was conducted between **August 2022 and July 2023** and published by the **National Sample Survey Office**.
- The **aim** is to calculate the monthly per capita expenditure **(MPCE)** at current/nominal prices.
- It collected information from **8,723 villages** and **6,115 urban blocks** covering **2,61,745 households** (60% in rural areas and 40% in urban areas).

Significance of Household Consumption Expenditure Survey (HCES):

- **Comparative analysis:** It is a primary source for studies on consumption patterns, poverty, and socio-economic status.
- **Policy implications and socio-economic planning:** It significantly impacts the country's policymaking, social welfare programs, and economic planning.
- **Data-informed decision-making:** The survey provides data that helps inform decisions on subsidies, social welfare schemes, and taxation policies.
- **Role in economic indicator review:** The HCES plays a key role in reviewing critical economic indicators like the Gross Domestic Product (GDP), poverty levels, and Consumer Price Inflation (CPI).
- **Assessment of government policies and programs:** It assesses the effectiveness of government policies and programs.
- **Understanding shifting consumer priorities:** It is also useful for understanding the shifting priorities in terms of baskets of goods and services.
- **Guidance for producers and service providers:** It provides pointers to producers of goods and providers of services.
- **International benchmarking:** It facilitates economic welfare and living standards comparisons with other countries.

Way Forward:

The HCES 2022-23 includes a separate provision for the collection of information on the quantity of consumption for several items, received and consumed by the households free of cost through various social welfare programs. **However, the value of education as well as health services received free of cost by the households has not been imputed. These inclusion and exclusion matters must be looked into and the methodology must be rectified to get better compiled data.**

Inheritance Tax in India

News Excerpt:

The use of inheritance tax as a tool for the redistribution of wealth to address income inequality has been discussed widely amid ongoing General Elections.

What are Inheritance Tax and Estate Tax?

- **Estate** and **inheritance taxes** are two types imposed when a person passes away. Although they are both **related to death**, they have different targets.
- **Estate taxes** are applied to the **total value of the deceased person's property** as **of the date of death**. In contrast, **inheritance taxes** are **charged to the property's beneficiaries.**
- The tax amount is generally calculated based on the **value of the assets** remaining after all the exemptions and deductions have been made.
- The primary objectives of inheritance taxes are to **boost government revenue** and **promote wealth redistribution.**

History of inheritance tax in India:

- In **1953,** India's Parliament passed the **Estate Duty 'Death Tax' Act.** Under this Act, **tax/duty was imposed on the principal value of movable and immovable property, including agricultural land**, passed on to any person after the death of the owner of such property.
- After implementation, the **death duty imposed peaked at 85%**, making it highly unpopular. In **1985, the Government abolished it** as the income generated for the Centre via such taxes was much less than the cost incurred due to the administrative process of executing it.
- India also had a **wealth** and **gift tax**, which was abolished in **2015** and **1998,** respectively.
- As of date, **no tax is imposed on property inherited,** whether through a **will** or by **intestate succession.**

Ways to tax wealth:

- Taxes are levied as a one-time levy on the **flow of income from wealth** at the **time of wealth transfer** or on the **stock of wealth** linked to the value of owned assets.
- There can be a **capital levy on income from wealth or ownership of assets** resulting in capital gains, **transfer taxes in the form of wealth tax, inheritance tax, estate tax,** or **gift tax** at the time of transfer of wealth or assets.
- Taxes can also be levied on a **combination of income and wealth.**

Shortcomings of inheritance/wealth tax:

- Wealthy taxpayers are seen as being **sensitive to high taxation** rates, which often results in **the flight of capital and investment to tax havens** or **jurisdictions with favourable tax rates.**
  - According to the EU Tax Observatory, an independent research laboratory at the Paris School of Economics, **global billionaires have effective tax rates equivalent to 0-0.5% of their wealth** due to the frequent use of **shell companies** to avoid income taxation.
  - Wealthy taxpayers often reduce the incidence of average tax rates by **exploiting loopholes** and **preferential treatments** of certain capital income.
- Also, high tax rates do not make sense if the **cost of collection** and **administration** of these taxes are high **compared to the revenues** that arise**.**
  - In the initial years of **estate duty, collections were lower than** the **budgeted estimates.**
  - The estate duty also did **not achieve its objectives** of reducing the unequal distribution of wealth and assisting states in financing their development schemes.
- The issue with **wealth tax** was the same.
  - Therefore, the government abolished the wealth tax and replaced it with an additional 2% surcharge on the super-rich with a taxable income of over Rs 1 crore in 2015.
- **The gift tax** was levied and abolished in 1958 and **1998, respectively, citing lower revenues.**
  - The gift tax was, however, revived in a different form later.
  - In July 2004, the government introduced a gift tax to plug a loophole to prevent money laundering.
  - Thus, purported gifts from unrelated persons above the threshold of Rs 25,000 (later raised to Rs 50,000) were decided to be taxed as income. Gifts from blood relations, lineal ascendants and descendants, and gifts on occasions like marriage continued to be exempt.

Experience elsewhere:

- A **March 2024** note by the **International Monetary Fund (IMF)** said tax rates on wealth have **generally declined** worldwide over the past decades.
- **12 OECD members had wealth taxes in 1990,** but **only three (Switzerland, Spain, Norway)** now levy a **broad-based wealth tax.**
- According to leading financial firm **Pricewaterhouse Coopers (PwC)**, most **European, American,** and even **African nations levy inheritance tax.**
  - In Europe, the top nations levying tax on inherited properties are **France (60%), Germany (50%), the United Kingdom (40%), Spain (33%)**, and **Hungary (18%).**
  - Other countries with **high inheritance taxes are Japan (55%), South Korea (50%), Ecuador (37%), Chile (25%), South Africa (25%)** and **Taiwan (20%).**

Way Forward:

- **Introduction of a Higher Threshold:** If the government plans to introduce an inheritance tax, it should implement a higher threshold to ensure that only the super-rich are taxed.
- **Exemptions for Donations**: Donations made by the super-rich to hospitals and universities should be exempt from inheritance tax calculations.
- **Enhancing Tax Administration Capacity**: Tax agencies should leverage advanced technologies to lower the costs of administering and monitoring compliance with the inheritance tax.
- **Adjustments to Complementary Taxes:** The government should revise complementary taxes, such as the Wealth Tax and Gift Tax, to prevent the super-rich from evading the inheritance tax.

Financial Inclusion Index

News Excerpt:

The **Financial Inclusion Index (FI-Index)** rose to **64.2 in March 2024**, up from **60.1 in March 2023**, according to the **Reserve Bank of India (RBI)**.

More about the news:

- The **annual FI-Index** for **March 2021** was **53.9**, compared to **43.4 in March 2017**.
- The Index is published **annually every July**.
- This improvement reflects **growth in all sub-indices**, showcasing the cumulative efforts of various stakeholders over the years.
- The **recent improvement** in the Index is primarily attributed to the **Usage dimension**, indicating a deepening of financial inclusion.

About the Financial Inclusion Index:

- This Index measures the **extent of financial inclusion** across India.
- The FI-Index condenses information on various aspects of **financial inclusion** into a single value ranging **from 0 to 100**, where **0 represents complete financial exclusion** and **100 represents full financial inclusion**.
- The FI-Index consists of **three main parameters**:
    - Access (35% weight),
    - Usage (45% weight)
    - Quality (20% weight)
- Each is composed of various dimensions calculated from a **total of 97 indicators**.
- It is sensitive to factors like **ease of access**, **availability and usage of services**, and the **quality of those services**.
- The Index is built **without a base year**, making it a comprehensive measure of ongoing efforts toward financial inclusion.
- Conceptualized as a **comprehensive tool**, the **FI-Index incorporates** data from **banking, investments, insurance, postal services, and the pension sector,** developed in consultation with the **government** and **sectoral regulators**.

Access (35% weight)	• **The 'Access' sub-index is further divided into four dimensions, viz., 'Banking', 'Digital', 'Pension', and 'Insurance',** which reflects the efforts made on the **supply side of financial inclusion,** such as availability of physical and digital infrastructure and measures for making basic products and services available for the excluded segments. • The **26 indicators across four dimensions** have been selected to capture the number of banking outlets, total number of savings accounts, all types of cards and electronic payment infrastructure, subscription base of various pension schemes and offices, etc.
Usage (45% weight)	• **The 'Usage' sub-index is divided into five dimensions, viz., 'Savings & Investment', 'Credit', 'Digital', 'Insurance' and 'Pension'.** • Comprising **52 indicators**, it is more of a **demand-side measure** and reflects the extent of active usage of financial infrastructure by way of savings, investment, insurance, availing of credit and remittance facilities, etc.
Quality (20% weight)	• **The 'Quality' sub-index has three dimensions, viz., 'Financial Literacy', 'Consumer Protection', and 'Inequality'** in the distribution of financial infrastructure with **19 indicators.** • These indicators capture the efforts undertaken by the stakeholders to make **citizens aware of the appropriate financial services available**, safe ways of using them and making them aware of their rights, such as overcoming psychological barriers. They also reflect the effectiveness of the grievance redress mechanism and account for the uneven distribution of certain indicators of financial access and usage.

Steps to Enhance Financial Inclusion

- In 2020, the **Reserve Bank of India (RBI)** released the **National Strategy for Financial Inclusion 2019-2024**.
- **Financial inclusion** has a significant **multiplier effect**, boosting overall **economic output**, **reducing poverty** and **income inequality**, and promoting **gender equality** and **women's empowerment**.
- RBI identified **six strategic objectives** for the national strategy on financial inclusion:
    - Universal access to financial services,
    - Providing a basic suite of financial services,
    - Access to livelihood and skill development,
    - Financial literacy and education,
    - Customer protection and grievance redressal, and
    - Effective coordination.

Way Forward:

- To achieve **universal access to financial services**, the RBI noted that while initiatives like **PM Jan Dhan Yojana** have established the **necessary banking infrastructure**, further efforts are needed to improve access to **insurance and pension services**.
- For **financial literacy** and **education**, the RBI proposed **developing specific modules** for various **target audiences** (such as children, entrepreneurs, and senior citizens) through the **National Centre for Financial Inclusion.**
- Additionally, it suggested expanding centres for financial literacy to **every block in the country** by **March 2024**.

FISCAL POLICY

Yield on Government Securities

News Excerpt

The decreasing yield of the 10-year government security (G-sec) has raised concerns for retail investors regarding their investment approach. Although the Reserve Bank of India (RBI) has provided retail investors access to the government securities market, their involvement has been relatively limited.

Understanding Government Securities

- Government securities (G-Secs) are tradeable instruments issued by the Central Government or State

Governments to borrow money from the public and finance their fiscal deficit.

- Debt instruments, such as G-Secs, represent a contractual obligation where the issuer agrees to pay the holder a fixed amount known as the principal or face value on a specified date.
- G-Secs can be categorized as short-term (treasury bills- 91-day, 182 day and 364 day) with maturities of less than one year or long-term (government bonds) with maturities of one year or more.
- The Central Government issues both treasury bills and bonds, while State Governments issue bonds known as State Development Loans (SDLs).
- G-Secs are widely considered risk-free gilt-edged instruments since they carry minimal risk of default.
- Gilt-edged securities are high-grade investment bonds utilized by governments and large corporations to borrow funds.
- The Reserve Bank of India (RBI) conducts Open Market Operations (OMOs) involving the sale or purchase of G-Secs to regulate money supply conditions.
- The RBI sells G-Secs to reduce liquidity in the system, while buying them back is done to inject liquidity into the system.
- This decline in yield is attributed to changes in debt mutual fund taxation and the removal of the benefit of indexation in the calculation of long-term capital gains on debt mutual funds.
- Currently, the G-sec is trading at approximately 6.96-6.99%.
- Factors such as changes in debt mutual fund taxation, the Reserve Bank of India's decision on the repo rate, and declining inflation have contributed to the downward movement of government security yields.

Reasons for Low Participation of Retail Investors in G-Secs

- **Limited investor guidance:** Retail investors struggle with the complexities of investing in government bonds and may require assistance from intermediaries to navigate the process effectively.
- **Liquidity challenges:** The G-Sec market lacks sufficient liquidity, making it difficult for retail investors to find buyers in the secondary market when they want to sell their securities. This can lead to investors being unable to liquidate their investments.
- **Complexity of investment:** Retail investors, especially those who lack knowledge in this area, may find the investment process in G-Secs intimidating and may prefer simpler investment options like fixed deposits.
- **Limitations of RBI Retail Direct:** While the RBI Retail Direct platform is useful for informed investors, it may not cater to uninformed participants who require a more straightforward investment process.
- **Low trading volumes:** The secondary market for G-Secs experiences low trading volumes, making it less appealing for retail investors.
- **Exploration of alternative options:** Retail investors may explore alternative investment avenues such as fixed deposits, which offer higher interest rates, or consider other options like new bonds, NCDs (Non-Convertible Debentures), or post office deposit schemes.

Types of Government Securities

Treasury Bills (T-bills): T-bills are securities that do not pay interest but are issued at a discount and redeemed at face value upon maturity.	**Cash Management Bills (CMBs):** Introduced in 2010 by the Government of India, CMBs are short-term instruments used to address temporary cash flow mismatches. They have similar characteristics to T-bills but have maturities of less than 91 days.	**Dated G-Secs:** Dated G-Secs are securities that have fixed or floating coupon rates paid on the face value. Interest is paid semi-annually, and the tenor of these securities typically ranges from 5 to 40 years.	**State Development Loans (SDLs):** SDLs are loans raised by state governments from the market. They are dated securities issued through normal auctions, similar to those conducted for the Central Government's dated securities.

Understanding Bond Yield

- Bond yield represents the return received by an investor on a bond.
- The yield is calculated using the mathematical formula: annual coupon rate divided by the current market price of the bond.
- Price and yield have an inverse relationship: when the bond price increases, the yield decreases, and vice versa.
- A bond is a financial instrument used to borrow money, and it can be issued by a government or a company to raise funds.
- The coupon rate refers to the interest rate paid by bond issuers on the face value of the bond.

Reasons for decline of yield

- The yield on the benchmark 10-year government security (G-sec) has decreased from 7.4% in early March 2023 to 6.9% in May 2023.

Liberalized Remittance Scheme (LRS)

News Excerpt:

According to the **Reserve Bank of India's (RBI) monthly bulletin for September,** outward remittances under the

Liberalised Remittance Scheme (LRS) in the April-September quarter of the fiscal year 2023-24 has shown growth on a year-on-year basis.

About LRS:

- It is a foreign exchange policy initiative under the **Foreign Exchange Management Act, 1999 (FEMA'99)**, introduced by the Reserve Bank of India in **2004**. It intended to simplify and streamline the process of remitting funds outside India.

Working of LRS:

- The FEMA'99 states that LRS is available to all resident individuals, including **minors** and students.
- The eligible citizens **must** have an Indian bank account, a valid Permanent Account Number (PAN), and a passport.
- They can use the remitted amount for educational, business, personal, or other purposes.
- Residents can avail of foreign exchange facilities within the **limit of USD 2,50,000 only,** revised from a limit of previous USD 25,000 consistent with prevailing macro and micro economic conditions.
- There are **no restrictions on the frequency** of remittances under LRS.
- The remittances can be made in **any freely convertible foreign currency.**

Prohibited Items Under LRS:

- Remittance for any purpose specifically prohibited under **Schedule I** (like purchase of lottery tickets/sweepstakes, proscribed magazines, etc.) or any item restricted under **Schedule II of Foreign Exchange Management** (Current Account Transactions) Rules, 2000.
- Remittances for trading in foreign exchange abroad.
- Capital account remittances, directly or indirectly, to countries identified by the Financial Action Task Force (FATF) as "non-cooperative countries and territories" occasionally.
- Remittances directly or indirectly to those entities identified as posing a significant risk of committing acts of terrorism as advised separately by the Reserve Bank.

Key Highlights of the bulletin:

It mentions both positive and negative changes in various sectors of the economy. **The table below shows positive change in all sectors except five, i.e. Deposits, Donations, Medical Treatment, Study Abroad and Others.**

STEADY GROWTH

Outward remittances under LRS for resident individuals

	Q2FY23 ($ million)	Q2FY24 ($ million)	% change Y-o-Y
Total	**7,321.65**	**9,231.96**	**26.09**
Deposit	231.28	229.42	-0.80
Purchase of immovable property	38.53	60.31	56.53
Investment in equity/debt	189.78	360.59	90.00
Gift	681.37	886.55	30.11
Donations	3.73	2.19	-41.29
Travel	3,887.67	5,224.21	34.38
Maintenance of close relatives	989.89	1220.5	23.30
Medical treatment	13.91	13.48	-3.09
Study abroad	1,168.50	1,146.65	-1.87
Others	117.01	88.09	-24.72

LRS: Liberalised Remittance Scheme Source: RBI bulletin

Reasons for the increase in Remittances:

- **Tax Change:** The surge in outward remittances is likely due to the change in the LRS tax scheme.
  - During the Union Budget FY- 2023-24, the government proposed increasing the tax collected at source (TCS) on liberalized overseas remittances **from 5% to 20%** for amounts above Rs 7 lakh for all purposes **except education and medical treatment.**
- **Capital Inflow:** This has resulted in a sharp increase in equity and debt investment and the purchase of immovable property.
- **Growth in international travel:** International travel increased by 34.38 percent year-on-year, leading to increased remittances.

The LRS has made the **transfer of remittances easy and transparent**, thus allowing resident Indians to avail of **hassle-free foreign education, overseas travel, and medical treatment.**

Corporate Debt Market Development Fund

News Excerpt

Finance Minister inaugurated Corporate Debt Market Development Fund (**CDMDF)** and initiated AMC Repo Clearing Limited **(ARCL).**

- Union Budget 2021-22 announced the creation of permanent institutional framework to enhance secondary market liquidity in Corporate Bond Market (CBM).
- Earlier this year, SEBI approved the framework of CDMDF.
- The corporate bond market has grown steadily in the last decade, with the outstanding stock of corporate bonds having increased four-fold from Rs 12 trillion to Rs 41 trillion in 2022. It includes REITs, InvIT's and Municipal debt securities.

About

Corporate Debt Market Development Fund (CDMDF)

- CDMDF is an alternative investment fund (**AIF**), designed to cater to the requirements of the corporate bond market. It acts as a safeguard mechanism for securities and instills the confidence of investor in the market.

Govt. Bonds

- Treasury Bills (T-Bills), Government bonds,State Development Loans (SDLs).State Governments issue securities under UDAY(DISCOMs). Special GoI securities fo Public Sector Banks (PSBs).

Corporate Bonds

- Convertible Bonds, Non-Convertible Debentures (NCDs), Perpetual, Zero Coupon Bonds, Masala bonds, External Commercial Borrowings (ECBs) and Foreign Currency Denominated Bonds (FCBs).

- It has a total backstop facility of Rs 33,000 crore. Government contribution stands at Rs 30,000 crore while rest Rs 3000 crore will be provided by Asset Management Companies.
- It has twin objectives – CDMDF will acquire debt securities and enhance liquidity of secondary market.
- National Credit Guarantee Trust Company (NCGTC) will be the guarantor of the fund.

Need of the fund:

Liquidity: During pandemic, secondary market liquidity in corporate debt market declined significantly making it difficult to buy and sell securities.

Safety net: For corporate debt market to grow, the investors and issuers must be assured of safety of their investment. CDMDF will provide the safety assurance to the stakeholders.

Growth of CBM: The fund is needed for continued unrestricted growth of corporate bond market.

Trust: The fund will build the trust among the stakeholders of the corporate bond market, thereby creating a environment conducive to long term investing.

Risk mitigation: Fund will act as a cushion in market dislocations, by preventing sudden liquidity crunches and shortages.

Policy goals: It aligns with the government commitment to boost the liquidity for secondary market and foster economic growth.

International recognition: It will enhance India's image as an attractive financial investment destination and attract investors.

AMC Repo Clearing Corporation Limited (ARCL):

Also known as Limited Purpose Clearing Corporation (LPCC) has been set up with the purpose of clearing and settlement of corporate bond repo transactions.

It will develop an active repo market, which will, in turn, improve liquidity in the underlying corporate bond

SEBI's guidelines for CDMDF

The tenure of CDMDF will be 15 years (can be extended), initiated as a closed ended scheme.

- CDMDF to focus on low duration government securities, treasury bills and corporate bond with maturity not exceeding 7 days, during normal course of market. While during market dislocation, investment grade corporate debt securities to be purchased by CDMDF.
- Acquisition authority of CDMDF extends to listed corporate debt securities only, with a maturity of upto 5 years.
- Transactions at CDMDF should be conducted at fair prices and not at the distress prices.

Backstop facility:

It is a financial mechanism to provide a safety net against market dislocation and other crises.

It instills confidence in market by assuring investors. For e.g., CDMDF provides backstop facility for investment grade corporate debt securities. If crises occur, CDMDF can step in and make purchases.

Recent initiative regarding CDMDF:

- **Guarantee Scheme for Corporate Debt (GSCD)** for the purpose of providing guarantee cover against debt to be raised by Corporate Debt Market Development Fund (CDMDF).
- **Prevalent challenges in Corporate Bond Market:** According to **Bank for International Settlements –**
- **Rating profile**: The corporate debt market is largely controlled by companies with strong credit ratings. Hence the corporations with high credit ratings are catered by CBM.
- **Mode of Issuance:** Privately issued bonds hold significant share as compared to public offerings. Public offerings have transparency and offers better price discovery.

- **Investor profile**: Majority of the investors are the domestic institutions such as insurance companies, banks, etc. The Participation of individual retail investors is limited.
- **Specialized Bonds:** India has been unable to attract the global pool of ESG (environmental, social, governance) funds.
- **Price transparency**: Lack of reliable and upto date information about financial markets. Also benchmark to figure out the value of bonds across different investors is not set.

NCGTC:

National Credit Guarantee Trustee Company Ltd is a private limited company incorporated under the Companies Act 1956, established by the Department of Financial Services, Ministry of Finance, as a wholly owned company of the Government of India, to act as a common trustee company for multiple credit guarantee funds.

Credit guarantee programmes are designed to share the lending risk of the lenders and in turn, facilitate access to finance for the prospective borrowers.

Way forward:

- The CDMDF should expand its scope to other debt instruments viz **green bonds**, **social bonds**, etc. With so much focus on renewable energy and recent activation of social exchange in India, these debt instruments will give a boost to finances.
- It should work in tandem with **SEBI** and **RBI**, for the development of corporate debt market of India.
- CDMDF should **engage** with the market stakeholders – issuers and investors, to roll out customized initiatives according to their needs.

Growing Tax Base in India

There has been a steady increase in both direct and indirect taxpayers in India over the past few years, leading to an increase in the overall tax base.

About:

- During the assessment year 2014-15, the number of **companies paying tax stood** at 7.46 lakh. By 2022-23, they had risen to 10.7 lakh — an **increase of around 43%.**
- Over the same period, the number of **individual taxpayers grew by 65 %,** rising from 5.38 crore to 8.9 crore.
- The disaggregated data shows that **small taxpayers** (those with incomes less than Rs 5 lakh) account for a sizable number of these new tax payers.
- Similar trends can be observed in the case of **indirect tax payers**. The number of active GST payers (as of June 2023) stood at 1.4 crore, up from **1.2 crore in 2019.**

Tax base:

It is the total value of all of the assets, income and economic activity that can be taxed by a taxing authority, usually a government. It is used to calculate tax liabilities. The size and growth (increase or decrease) of the tax base is crucial to the planning of local,

Reasons for growing tax base in India:

- **Growing size of economy:** Part of this increase in the tax base is the natural consequence of the economy growing in size — **more companies are setting up shop**, more individuals are entering the labour force, and more **formal sector jobs are being created**.
- **Formalization of the economy**: The growing formalisation of the economy is likely to have played a role by making tax evasion or avoidance a **more complicated exercise**.
- **Introduction of new tracking features:** As per the government, the introduction **of new tracking features** h++as helped the income tax department widen the tax base.
- The introduction of **new data sources** in the **Statement of Financial Transactions (SFT),** such as dividends, interest, details of shares and mutual funds as well as information from GSTN, introduction of new TDS code, etc. have led to a 12-fold jump in reported information, with addition of information of about 3 crore persons.

Tax-to-GDP ratio:

It is the ratio of a country's tax revenue compared to its GDP. This ratio is used as a measure of **how well the government controls a country's economic resources.** Tax-to-GDP ratio is calculated by dividing the tax revenue of a specific time period by the GDP. In India, the financial year 2021-22 marked the **highest tax-GDP ratio** of **11.7%**, with direct tax to GDP ratio at 6.1% and indirect

Implications of growing tax base:

- **Reduce budget deficits**: It can help the government reduce budget deficits and **achieve fiscal sustainability.**
- **Reduction in tax evasion:** When more people and businesses are brought into the tax net, there is **increased scrutiny and accountability**, leading to a reduction in tax evasion.
- **Higher tax collections:** A broader tax base results in higher tax collections. It helps the government **finance various public expenditures**, such as infrastructure development, healthcare, education, and social welfare program.
- **Reduced tax rates**: The government may have the options to reduce tax rates if the tax base expands. Lower tax rates can **stimulate economic growth** and **encourage compliance.**

- **Reduction of income inequality**: A broader tax base can be used to implement more **progressive taxation policies,** which can help redistribute wealth and reduce income inequality.

Suggestions to increase tax base of India:

- **Expanding the tax net**: Steps should be taken to expand the tax net to include sectors that are **currently exempt or partially exempt** from taxes, such as **agriculture income** and certain religious institutions.
- **Track and penalize tax evasion**: Strengthen **anti-money laundering laws** and measures to track and **penalize tax evasion**, including offshore tax evasion. Collaborate with international agencies to exchange information on tax evaders.
- **Reward taxpayers**: Recognize and reward taxpayers who consistently **comply with tax laws** through incentives or recognition programs.
- **Strengthening the enforcement of GST regime:** The government should take more measures on strengthening the enforcement of the GST regime by **simplifying tax compliance procedures, reducing the tax rate slabs**, and implementing **stricter penalties** for non-compliance.
- **Formalization of economy:** The government should encourage businesses in the informal sector **to formalize their operations**.
- **Promote awareness:** Awareness must be raised about tax compliance among citizens and businesses through **public campaigns**, **workshops, online resources**, etc.
- **Strengthen local governments**: Strengthen local governments' **revenue collection** mechanisms, including property taxes, fire-brigade tax, taxes on vehicles, taxes on boats, user fees, and development charges.

Conclusion:

The increasing tax base in India is a **positive sign** leading to several positive outcomes, such as **higher government revenue, fiscal sustainability, and reduced tax evasion.** While the number of people filing income tax returns has grown by a compounded average growth of 3.4 % between 2019-20 and 2022-23, the number of people filing returns but who have no tax incidence has grown by 15.5 % over the same period. Filing tax returns is an annual activity that should be seen as a moral and social duty of every responsible citizen of the country.

Finance Commission & the Fiscal Maze

News Excerpt:

As the recently appointed 16th Finance Commission, led by **Arvind Panagariya,** takes charge, it is confronted with a daunting task, amplified by an unnoticed fiscal crisis and the delicate nature of federalism. India, a nation marked by rich diversity, grapples with a challenging fiscal situation that requires careful handling. **The Center's assertive stance, especially in limiting states' fiscal autonomy, emphasizes a growing trust gap between New Delhi and the states.**

16th Finance Commission:

The former Vice Chairman of NITI Aayog, **Arvind Pangariya**, has been appointed as the Chairman of the 16th Finance Commission.

- The Finance Commission, set up under Article 280, is a Constitutionally mandated body at the **centre of fiscal and cooperative federalism.**
- This panel will have an **open mandate,** unlike finance commissions in recent years, where the Centre provided a large set of terms of reference.
- The 16th Finance Commission will have less than two years to finalize its recommendations for five years, starting April 2025.
- The commission will submit its report for the **five-year period (2026-27 to 2030-31)** to the President by October 31, 2025.
- This time, the **government has also refrained from providing a base year for the Commission**, which uses population as a key parameter for working out the devolution formula.

Status of fiscal well-being and future aspects:

- **Impact on States:** There is the issue of trust deficit in action as states facing severe financial crises, like Kerala, express concern over reduced borrowing limits. The disparity between the Finance Commission's recommendations and practical fiscal manoeuvres is evident. Despite proposals for a fiscal consolidation plan, economic decisions seem increasingly influenced by politics.
- **Imbalance and Political Influence:** The Center's hesitancy to align fiscal transfers with economic or social criteria raises doubts about the Finance Commission's intended purpose.
    - Examining tax devolution figures reveals a stark reality. During the pandemic year, states witnessed the lowest levels of tax devolution, forcing them to borrow extensively for healthcare and pandemic-related expenses.
- **Unequal Growth Patterns:** Fiscal positions vary widely among states, with Bihar and Uttar Pradesh receiving substantial tax devolution shares based on their needs, while states like Haryana, Punjab, and Kerala see minimal growth despite contributing significantly to central government tax revenue.
    - This data highlights an imbalanced growth pattern, raising concerns about the effectiveness of fiscal policies in promoting equitable development.
- **Debt Landscapes:** Exploring debt landscapes, **Mizoram** grapples with the highest debt-to-GDP ratio, followed by Punjab and Nagaland.

- The 16th Finance Commission faces the challenge of formulating a fiscal consolidation strategy for high-debt states, necessitating a delicate balance between reducing indebtedness and addressing spending priorities.

- **Center's Dilemma:** Lack of Foresight in Fiscal Approach is an area of concern. The broader narrative portrays a Center seemingly entangled in a fiscal dilemma.
  - The existing approach to tax-based disbursements to states reflects a lack of foresight in supporting their welfare and growth requirements.
- **Toward a Sustainable Economic Future:** Aligning Words with Actions will provide fruitful results. The erosion of the Center's fiscal capacity, regardless of the political parties in power, suggests a deeper issue of inefficiency in revenue collection.
  - Balancing devolution and consolidation, the 16th Finance Commission confronts the formidable task of shaping a fiscal trajectory that aligns with the diverse needs of the nation.
  - As India navigates its fiscal challenges, the true challenge lies in aligning words with actions, steering away from the spectre of a silent fiscal crisis toward a sustainable economic future.

16th Finance Commission's future steps to combating climate change issues:

- The Commission needs to metamorphose from a conventional fiscal arbitrator to an orchestrator of India's climate readiness. The country requires a fiscal blueprint that harmonizes economic growth with environmental imperatives.
- **First, by making states' climate vulnerability and emission intensity a key parameter of the tax devolution formula**, the Commission can nudge action towards achieving India's NDCs under the Paris Pact. Much will depend on how the panel can evolve a formula to ensure incentive-based performance.
- **Second, the FC could look at the possibility of performance-based grants for different sectors:** Sector-specific grants for key actions are critical for achieving the objectives of India's NDCs and SDG goals. Emissions reduction requires decarbonising the energy and transport sectors, sustainable land and forest management, and nudging people to make lifestyle changes. Given the severity of the pollution challenge, clean energy should be amongst the FC's priorities.
- **Innovations to tackle the seemingly intractable problem of crop burning will require funds.** So will mangrove restoration, a key necessity given the weather vagary-induced floods in recent times. At the same time, increasing dry spells have led to forest fires in several states. Such incidences are not part of the forest's regenerative cycle but a result of changing climate patterns. The FC has to find ways to become a part of the solution to this ecological challenge.
- **There is no shortage of studies that show the exact climate vulnerability of the different regions in India.** Moreover, policymakers are equipped with pollution inventories at different levels. Remote sensing data helps assess the degradation of ecosystems and understand forest fires.
  - Therefore, the experts at 16th FC can turn to science to ascertain both the vulnerability of states and how they are doing to mitigate them.
  - This can help them design a performance-based system for fund apportioning.

Way Forward:

As India navigates its fiscal maze, the real test lies in harmonizing rhetoric with action, steering away from the spectre of a silent fiscal crisis towards a sustainable economic future.

February Budget 2024

News Excerpt:

The Government of India presented its Interim Budget on February 1, 2024. The Finance Minister asked for Parliament's approval for the Government's expenditure for the first **four months of this fiscal year**.

Difference between Vote on Account and the Interim Budget:

- **Article 116** of the Constitution allows the Lok Sabha to make any **grant in advance** for the **estimated expenditure** for a part of any financial year by voting and passing such legislation, i.e. **vote on account**.
- The Lok Sabha is empowered to authorize the withdrawal of required funds from the **Consolidated Fund of India** for such expenditure.
- A **simple vote on account** includes presenting the Centre's fund requirements for salaries, ongoing projects, and other expenditures for the transitional period, which is then passed via the Lok Sabha **sans debate**. It cannot make any changes to tax rates. It is also valid only for **two months** and can be extended up to **four months.**
  - However, it has been the trend for **outgoing governments to present an interim budget instead of a simple vote on account.**

Difference between an Interim Budget and the Union Budget:

- The Interim Budget is a temporary financial plan announced **before a new government** is set to come in after general elections. It can be understood as a **provisional arrangement** to meet the Government's expenditure for a short period until the new Government comes in and makes the new full budget.
- The **full-year Union Budget** is a comprehensive financial plan that covers all aspects of government

spending, revenue generation, policy reforms, and more for an entire fiscal year.

- An **Interim Budget** allocates funds for **essential government operations**, ongoing schemes and urgent requirements. Since it is not a budget for a full year, it refrains from policy reforms.

Key Highlights:

- The size of Budget 2024-25 has increased **by 6.1 %** to Rs **47.66 lakh crore** because of a rise in expenditure and higher allocation for capital expenditure and social sector schemes.

Part A

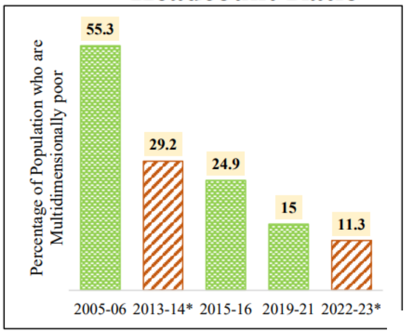
Social Justice:

- Prime Minister to focus on the upliftment of four major castes that is 'Garib' (Poor), 'Mahilayen' (Women), 'Yuva' (Youth) and 'Annadata' (Farmer).

'Garib Kalyan, Desh ka Kalyan'

- The Government has assisted 25 crore people in overcoming multi-dimensional poverty in the last 10 years.
- DBT of Rs. 34 lakh crore using PM-Jan Dhan accounts led to savings of Rs. 2.7 lakh crore for the Government.
- PM-SVANidhi provided credit assistance to 78 lakh street vendors. 2.3 lakh have received credit for the third time.

Decline in Headcount Ratio



* Projections

- PM-JANMAN Yojana will aid the development of particularly vulnerable tribal groups (PVTG).
- PM-Vishwakarma Yojana provides end-to-end support to artisans and craftspeople engaged in 18 trades.

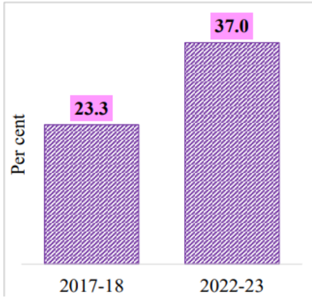
Welfare of 'Annadata'

- **PM-KISAN SAMMAN Yojana** provided financial assistance to 11.8 crore farmers.
- Under PM Fasal Bima Yojana, crop insurance is given to 4 crore farmers
- Electronic National Agriculture Market (e-NAM) integrated 1361 mandis, providing services to 1.8 crore farmers with a trading volume of Rs. 3 lakh crore.

Momentum for Nari Shakti

- 30 crore **Mudra Yojana loans** given to women entrepreneurs.
- Female enrolment in higher education has gone up by 28%.
- In STEM courses, girls and women constitute 43% of enrolment, one of the highest in the World.
- Over 70% of houses under PM Awas Yojana are given to women from rural areas.

Rise in Female Labour Force Participation Rate



PM Awas Yojana (Grameen)

- Despite COVID challenges, the target of three crore houses under **PM Awas Yojana (Grameen)** will be achieved soon.
- Two crore more houses will be built in the next five years.

Rooftop solarization and 'muft bijli'

- 1 crore households obtain 300 units of free electricity monthly through **rooftop solarization.**
- Each household is expected to save Rs.15000 to Rs.18000 annually.

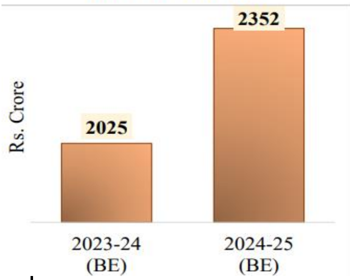
Ayushman Bharat

- Healthcare coverage under the **Ayushman Bharat scheme** is to be extended to all ASHA workers, Anganwadi Workers and Helpers.

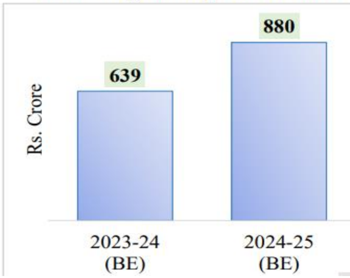
Agriculture and food processing

- **Pradhan Mantri Kisan Sampada Yojana** has benefitted 38 lakh farmers and generated 10 lakh employment.
- **Pradhan Mantri Formalisation of Micro Food Processing Enterprises Yojana** has assisted 2.4 lakh SHGs and 60000 individuals with credit linkages.

Increased allocation for Blue Revolution



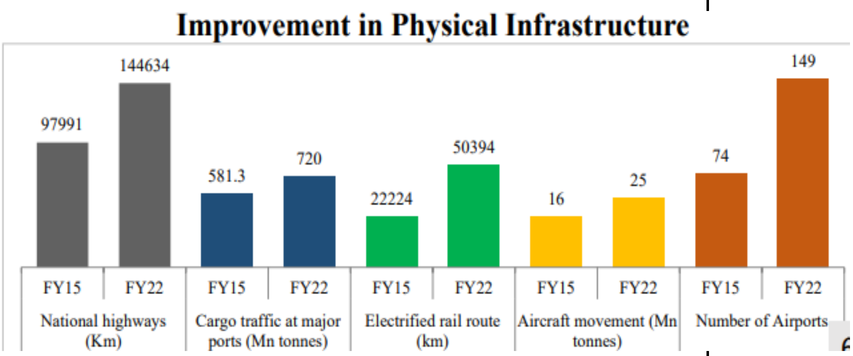
Increased allocation for PM-Formalisation of Micro Food Processing Enterprises scheme



Research and Innovation for catalyzing growth, employment and development

- A corpus of Rs.1 lakh crore is to be established with a fifty-year interest-free loan to provide long-term financing or refinancing with long tenors and low or nil interest rates.
- A new scheme is to be launched to strengthen deep-tech technologies for defence purposes and expedite 'atmanirbharta'.

Infrastructure



- Capital expenditure outlay for Infrastructure development and employment generation is to be increased by 11.1 per cent to Rs.11,11,111 crore, which will be 3.4 per cent of the GDP.

Railways

- 3 major economic railway corridor programmes identified under PM Gati Shakti to be implemented to improve logistics efficiency and reduce cost:
    - Energy, mineral and cement corridors
    - Port connectivity corridors
    - High-traffic density corridors
- Forty thousand normal rail bogies are to be converted to Vande Bharat standards.

Aviation Sector

- The number of airports in the country doubled to 149.
- Five hundred and seventeen new routes are carrying 1.3 crore passengers.
- Indian carriers have placed orders for over 1000 new aircraft.

Green Energy

- Coal gasification and liquefaction capacity of 100 MT to be set up by 2030.
- The phased mandatory blending of compressed biogas (CBG) in compressed natural gas (CNG) for transport and piped natural gas (PNG) for domestic purposes to be mandated.

Tourism sector

- States are to be encouraged to take up comprehensive development of iconic tourist centres, including their branding and marketing at a global scale.
- A framework for rating tourist centres based on the quality of facilities and services must be established.
- Long-term interest-free loans are to be provided to states to finance such development on a matching basis.

Investments

- FDI inflow during 2014-23 of USD 596 billion was twice the inflow during 2005-14.

Reforms in the States for 'Viksit Bharat'

- A provision of Rs.75,000 crore rupees as a fifty-year interest-free loan is proposed to support milestone-linked reforms by the State Governments.

Revised Estimates (RE) 2023-24

- RE of the total receipts other than borrowings is Rs.27.56 lakh crore, of which the tax receipts are Rs.23.24 lakh crore.
- RE of the total expenditure is Rs.44.90 lakh crore.
- Revenue receipts at Rs.30.03 lakh crore are expected to be higher than the Budget Estimate, reflecting strong growth momentum and formalization in the economy.
- RE of the fiscal deficit is 5.8 per cent of GDP for 2023-24.

Budget Estimates 2024-25

- Total receipts other than borrowings and the total expenditure are estimated at Rs.30.80 and Rs.47.66 lakh crore, respectively.
- Tax receipts are estimated at Rs.26.02 lakh crore.
- The scheme of a fifty-year interest-free loan for capital expenditure to states is to be continued this year with a total outlay of Rs.1.3 lakh crore.
- Fiscal deficit in 2024-25 is estimated to be 5.1 per cent of GDP.
- Gross and net market borrowings through dated securities during 2024-25 are estimated at Rs.14.13 and Rs.11.75 lakh crore, respectively.

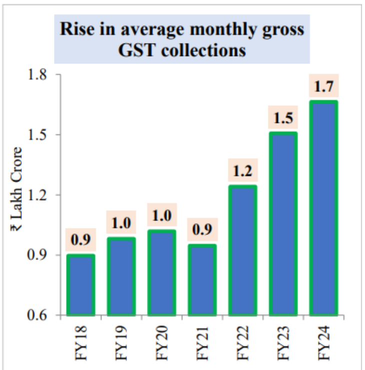
Part B

Direct taxes

- FM proposes to **retain the same tax rates** for direct taxes.
- Direct tax collection tripled, and return filers increased to 2.4 times in the last 10 years.
- Government to improve taxpayer services:
    - Outstanding direct tax demands up to Rs 25000 pertaining to the period up to FY 2009-10 withdrawn.
    - Outstanding direct tax demands up to Rs 10000 for financial years 2010-11 to 2014-15 withdrawn.
    - This will benefit one crore taxpayers.
- Tax benefits to Startups, investments made by Sovereign wealth funds or pension funds extended to 31ST March, 2025.

Indirect taxes

- FM proposes to retain the same tax rates for indirect taxes and import duties.
- GST unified the highly fragmented indirect tax regime in India.
- Average monthly gross GST collection doubled to Rs 1.66 lakh crore this year.



- The GST tax base has doubled.
- State SGST revenue buoyancy (including compensation released to states) increased to 1.22 in the post-GST period (2017-18 to 2022-23) from 0.72 in the pre-GST period (2012-13 to 2015-16).
- 94% of industry leaders view the transition to GST as largely positive.
- GST led to supply chain optimization.
- GST reduced the compliance burden on trade and industry.
- Lower logistics costs and taxes helped reduce the prices of goods and services, benefiting the consumers.

Tax rationalization efforts over the years

- No tax liability for income up to Rs 7 lakh, up from Rs 2.2 lakh in FY 2013-14.
- The presumptive taxation threshold for retail businesses increased to Rs 3 crore from Rs 2 crore.
- The presumptive taxation threshold for professionals increased to Rs 75 lakh from Rs 50 lakh.
- Corporate income tax decreased to 22% from 30% for existing domestic companies.
- The corporate income tax rate at 15% for new manufacturing companies.

Achievements in taxpayer services

- The average processing time of tax returns has reduced to 10 days from 93 days in 2013-14.
- Faceless Assessment and Appeal introduced for greater efficiency.
- Updated income tax returns, new form 26AS and prefilled tax returns for simplified return filing.
- Reforms in customs leading to reduced Import release time:
  - Reduction by 47% to 71 hours at Inland Container Depots.
  - Reduction by 28% to 44 hours at Air Cargo complexes.
  - Reduction by 27% to 85 hours at Sea Ports.

THE UNION BUDGET 2024-2025

Infrastructure

News Excerpt:

The government **allocated ₹11 lakh crore** for capital expenditure, representing **3.4 percent of GDP**

Railways:

- The **Railway Ministry** has been allocated a record **₹2.55 lakh crore** for the financial year 2024-25, marking a **4.9% increase** from the previous year's ₹2.43 lakh crore.
- The **operating ratio**, which measures the rupees spent to earn every hundred rupees, **was 98.1%** for the financial year 2022-23. In the Budget Estimates for 2024-25, this ratio has slightly increased to **98.22%**.
- With approvals in place for **Kavach 4.0**, the implementation of the **automatic train protection system** will accelerate.

Pradhan Mantri Gram Sadak Yojana (PMGSY):

- The **Finance Minister** announced that **Phase IV of PMGSY** will be launched to provide all-weather connectivity to **25,000 rural habitations** that have become eligible in view of their population increase.
- **PMGSY**, launched on **25th December 2000**, aims to provide all-weather access to eligible unconnected habitations and is a **100% Centrally Sponsored Scheme**.
- In the Budget, the following **road connectivity projects** are to be developed at the cost of **₹26,000 Cr.**
  - **Patna-Purnea Expressway**
  - **Buxar-Bhagalpur Expressway**
  - **Bodhgaya. Rajgir, Vaishali & Darbhanga Spurs**

- **Additional 2-lane bridge over river Ganga at Buxar**

Industrial Node Development in Gaya:

- The central government will support the development of an **industrial node** in **Gaya** as part of the **Amritsar-Kolkata industrial corridor**.
- This initiative is in line with the broader '**Purvodaya' scheme**, which focuses on the development of the eastern region, including **Bihar, Jharkhand, West Bengal, Andhra Pradesh, and Odisha.**

Irrigation and Flood Mitigation:

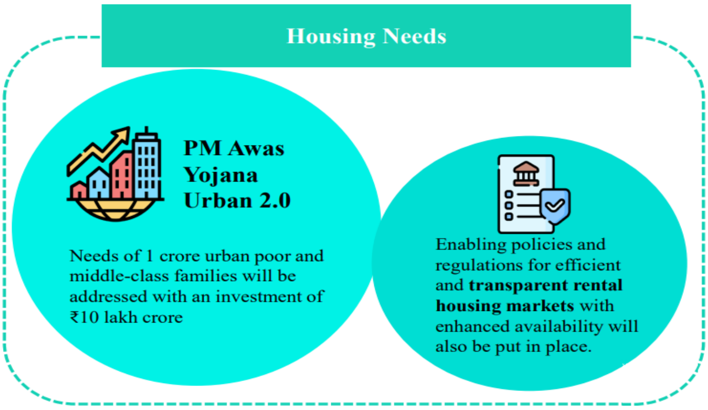
- The government will provide financial support for irrigation and flood mitigation projects in Bihar, with an estimated cost of **₹11,500 crore** through the **Accelerated Irrigation Benefit Programme** and other sources.
- This includes the **Kosi-Mechi intra-state link** and 20 other ongoing and new schemes.
- Additionally, a survey and investigation of Kosi-related flood mitigation and irrigation will be conducted.

Legislative support for the Leasing of aircraft and ships:

- The Finance Minister has proposed legislative measures to support the **financing and Leasing of aircraft and ships** within India, aiming to shield airlines from foreign exchange risks.
- Additionally, there will be an exploration of legislative backing for **pooled private equity funds** through a variable company structure.
- The **Variable Capital Company (VCC)**, introduced in Singapore in January 2020, is a new corporate structure designed to meet the specific needs of investment funds. A VCC can be established as a single standalone fund or as an umbrella fund with multiple sub-funds, each holding different assets.
- The Finance Minister also provided partial relief to the **maintenance, repair, and overhaul (MRO)** sector by extending the period allowed for entities to stock imported goods, such as spares and test equipment, before exporting them. **The new allowance is one year, up from the previous six-month limit.**

Housing Sector:

- To meet the housing demands of urban poor and middle-class families, the Union Finance Minister has announced a significant investment of **₹10 lakh crore** under the **PM Awas Yojana-Urban 2.0**.
- This includes Central assistance of **₹2.2 lakh crore** over the **next five years**. Additionally, the plan envisages providing **interest subsidies** to facilitate affordable loans.
- **Public-private partnerships** will be encouraged to create rental housing with **dormitory-style accommodations** for industrial workers, supported by viability gap funding and commitments from key industries.
- Furthermore, three **crore new houses** under the **PMAY scheme** in both rural and urban areas have been announced.



New Scheme for Tribal Villages:

- The Union government will introduce the **PM Janjatiya Unnat Gram Abhiyaan** to ensure full saturation of basic facilities for **five crore Scheduled Tribe families** across 63,000 villages in tribal-majority areas and aspirational districts.
- This scheme is aimed specifically at benefiting **Scheduled Tribe populations** nationwide.

Border Infrastructure Maintenance:

- The allocation for **border infrastructure maintenance** and capital outlay has been increased to **₹3,756 crore** for the 2024-25 Budget, up by ₹211 crore from last year's ₹3,545 crore allocation.
- The Budget for '**rehabilitation and relief for migrants**,' including Sri Lankan refugees and Tibetans, has also seen an increase from ₹301 crore in the 2023-24 **fiscal year** to ₹539.72 crore in 2024-25.

Land Records to be Digitized with GIS Mapping:

- The Finance Minister has announced a series of reforms related to **land and land use**, focusing on **identification, planning, and leveraging multiple domains**. These reforms will encompass both rural and urban areas and will be completed within three years.
- In rural areas, the reforms will include the assignment of **unique land parcel identification numbers**, known as **Bhu-Aadhaar**, for all lands. This will involve the digitization of cadastral maps, surveying of **map sub-divisions based on current ownership**, establishment of a land registry, and linking it to the farmers' registry.
- In urban areas, land records will be digitized using **Geographic Information System (GIS) mapping**. Additionally, an IT-based system for property record administration, updating, and tax administration will be developed.
- The Centre, in collaboration with the States, will also facilitate the implementation of the **Digital Public**

Infrastructure (DPI) in agriculture to cover farmers and their lands within the next three years.

Forensic Infrastructure to Support New Criminal Laws:

- The Ministry of Home Affairs has allocated **₹700** crore for the '**Modernisation of Forensic Capacity**' and **₹150 crore** for the '**National Forensic Infrastructure Enhancement**' under the new Budget.
- These funds are essential for implementing the **three new criminal laws** that came into effect **on July 1**.
- In June, the Cabinet approved a **forensics scheme** with a total financial outlay of **₹2,254.43 crore** for the period 2024-25 to 2028-29.
- Additionally, the **Crime and Criminal Tracking Network Systems** and the **modernization of State police forces**, both critical to the new criminal laws, have seen their Budget increased from ₹264 crore to ₹520 crore for 2024-25.

Tourism Sector:

- The Union Finance Minister has announced plans to develop the **Vishnupath temple** in **Gaya** and the **Mahabodhi temple** in **Bodh Gaya**, Bihar, following the successful model of the **Kashi-Vishwanath temple corridor**.
- Additionally, the Centre will support the development of **Nalanda and Rajgir** in **Bihar** as key tourist centres.

Jewellery Sector

News Excerpt:

The Union Finance Minister has proposed significant reductions in customs duties on precious metals, providing relief to buyers.

Proposed Reductions:

- The **levy on platinum, palladium, osmium, ruthenium, and iridium has been decreased** from 15.4% to 6.4%.
- Previously, the duty on gold bars was 15%, including a 10% basic customs duty and a 5% Agricultural Infrastructure Development Cess. The new structure imposes a **5% basic customs duty and a 1% Agriculture Infrastructure & Development Cess** (AIDC) on gold imports, lowering the total import duty to 6%.
- This reduction benefits **organized retail jewellers, consumers, and the government,** making it a positive development for all parties involved.

Objective of the proposal:

- The government reduced customs duties **to lower input costs, enhance value addition, boost export competitiveness, cut smuggling, and stimulate domestic manufacturing.**
- However, it is estimated to result in an annual revenue loss of ₹28,000 crore based on FY24 import levels.
- Additionally, the Finance Minister announced measures to support the diamond-cutting and polishing industry by **proposing safe-harbour rates** for foreign mining companies selling raw diamonds in India.
- This initiative aims to bolster India's position as a world leader in the diamond industry, which employs a large number of skilled workers.

Metal	Previous Rate (%)	New Rate (%)
Gold Bars	15.0	6.0
Gold Dore	14.355	5.35
Platinum	15.4	6.4
Silver Bars	14.35	6.0
Silver Dore	14.35	5.35

Safe Harbour Rate and Its Impact on India's Diamond Industry

- The concept of a **"safe harbour rate"** involves setting **a predetermined tax rate for transactions,** providing certainty and simplicity in tax compliance.
- This approach is **particularly relevant in India's diamond cutting** and polishing industry, where a large volume of rough diamonds is imported for processing.
- Without safe harbour rates, tax authorities would closely examine the transaction to ensure **that the pricing is fair and not manipulated to avoid taxes.**
- This scrutiny can lead to **lengthy audits and potential disputes** over the fair market value of the diamonds.
- To **streamline this process**, the government introduces a safe harbour rate for such transactions.
- For instance, it sets **a predetermined tax rate,** say 10% (hypothetical), on the value of raw diamonds sold by foreign companies to Indian companies.
  - So, if any company sells diamonds worth ₹10 lakh to another company, they would pay ₹1 lakh in taxes under this Rate.
- For companies, it provides **clarity and predictability, reducing the risk of disputes and lengthy audits**.
- For India, it encourages **more raw diamond imports, supports local craftsmen, and fosters a stable business environment.**

The **Gem & Jewellery Export Promotion Council** (**GJEPC**) welcomed the budget proposals, viewing them as transformative for the Indigenous gem and jewellery industry and a step towards establishing India as a global diamond trading hub.

The Gem & Jewellery Export Promotion Council

- It is the apex body driving India's export-led growth in the gem and jewellery sector since **1966**.
- Headquarters: **Mumbai**
- **Role of GJEPC**
  - **Facilitating better interaction on trade-related issues between the Industry and the Government of India.**
  - **Taking up relevant export-related issues** with the Government, Ministries, Regulatory Authorities and Agencies.
  - Undertaking **image-building exercises** through international advertisements, publications and audio-visuals.
  - Representing trade-friendly policies for inclusion in the **EXIM Policy.**

Space Sector

News Excerpt:

The Department of Space received an 18% hike over its expenses in 2023-2024 in the 2024-2025 Union Budget.

Focus area in Space technology:

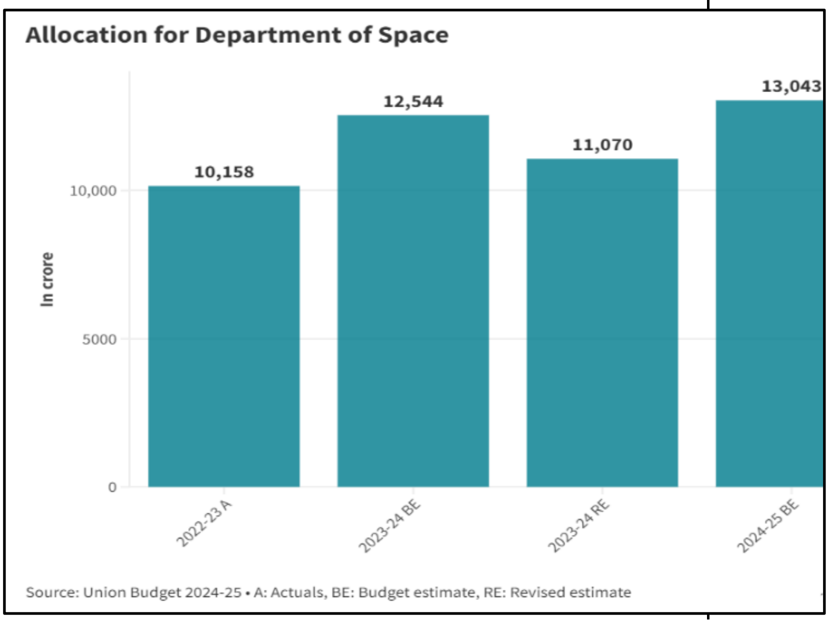
- The majority of the increase is directed towards the **development of space technologies, with a marginal rise in space applications.**
- However, funding for space sciences **decreased**, and the Budget for the **INSAT satellite systems was nearly halved** compared to the previous year.

Boost to Space Startup:

- A **venture capital fund** of ₹1,000 crore (approximately $120 million) was announced to support Space Startups.
- The initiative aims **to expand India's space economy** fivefold over the next decade.
  - As per government report in the Parliament the current **size of the Indian Space Economy** is estimated around **$8.4 billion** (around 2-3% of global space economy) with a potential to reach $44 billion by the year 2033.
- The Finance Minister also proposed **removing the angel tax** as a barrier to new investments in the sector.
- Earlier this year, the Indian government allowed **100% automatic foreign direct investment (FDI)** in satellite component manufacturing and user ground segments, up to **74% in satellite manufacturing** and operations, and up to **49% in rockets** and spaceports.
- This move, combined with the removal of Angel Tax, is expected to improve investment in Space Startup by manyfold.
- Many experts have also expressed **optimism about the government's role as an anchor customer.**
- They have argued that government procurement could validate high-risk products and create a competitive market, encouraging further investment from other sources.

Challenges in Achieving the goals set in the Budget:

- This move has received mixed reactions from industry experts and stakeholders.
- Critics argue that the allocated funds are insufficient to achieve the ambitious goals set by the government.
  - According to experts, the fund should be **10 to 100 times larger to make a significant impact.**
- The allocation is being described as a "start" with a need for more substantial support from government as an anchor financier and customer is crucial for the industry's growth.
  - The total funds raised by Indian space startups in the 2023-24 fiscal year amounted to only $134 million, indicating **the need for more government investment to achieve the stated goal.**
- There is a lack of revenue growth among Indian space startups, **with none crossing the ₹100 crore mark.**
- There is a need for the industry to demonstrate **success beyond raising venture capital to increase the risk appetite of investors.**



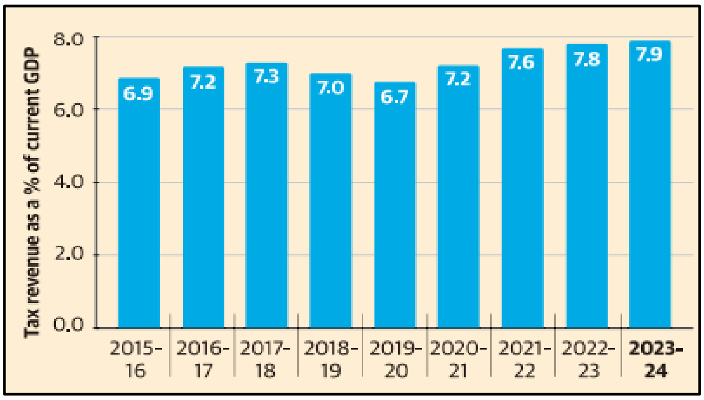
Taxation

News Excerpt:

Altering the structure for **taxation of income** under the new regime, the Finance Minister revised the **tax slabs** whilst retaining the erstwhile corresponding tax rates other than increasing the standard deductions.

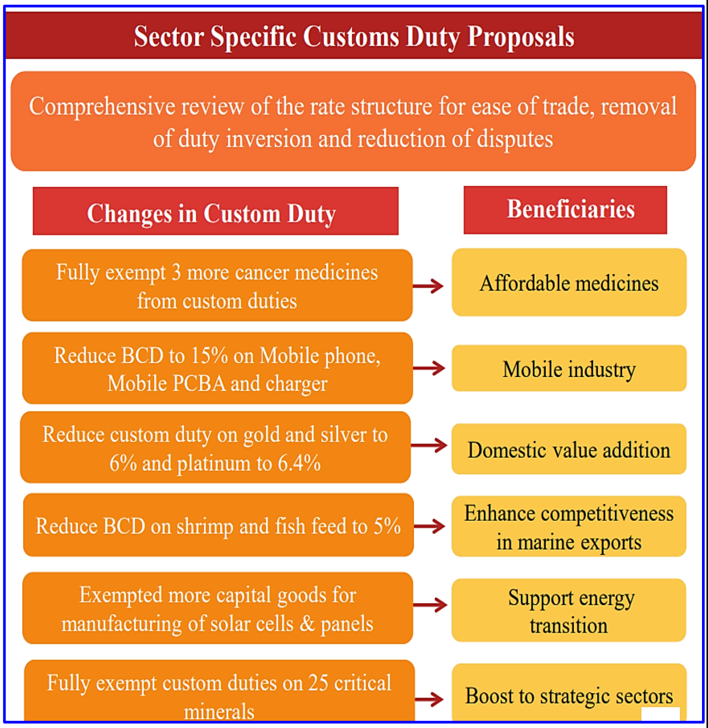
Key points regarding the taxation part of the Budget:

- The Centre's net tax revenue (not including the transfer to States) as a share of GDP at current prices has stagnated. It continues to remain below the 8% mark, as shown in the graph.



Indirect Taxes:

- **GST:** Buoyed by **GST's success**, the tax structure needs to be simplified and rationalized to expand GST to the remaining sectors.
- **Sector-specific customs duty proposals:**



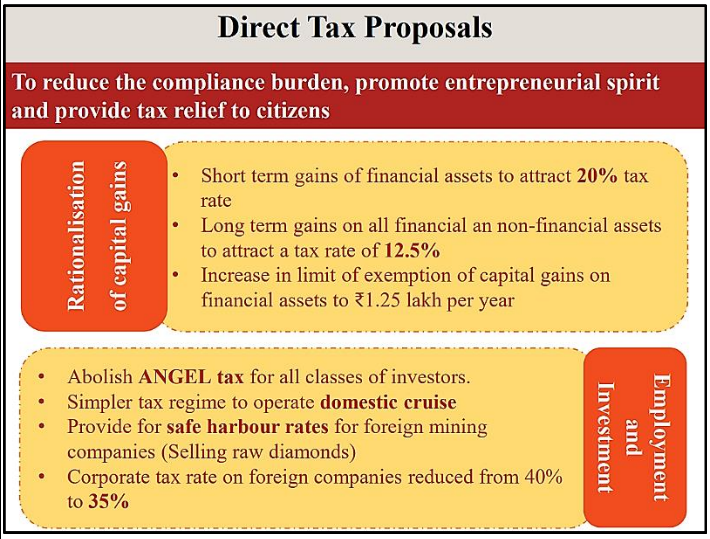
Other Metals:

- **Basic Customs Duty (BCD)** removed on ferro nickel and blister copper.
- BCD was removed on ferrous scrap and nickel cathode.

- **Electronics:**
  - BCD was removed, subject to conditions, on oxygen-free copper for the manufacture of resistors.
- **Telecommunication Equipment:**
  - BCD increased from **10 to 15 per cent on PCBA** of specified telecom equipment.
- **Trade facilitation:**
  - For promotion of domestic aviation and **boat & ship MRO,** the time period for export of goods imported for repairs extended from six months to one year.
  - The limit for re-importing goods for repairs under warranty is extended from three to five years.
- **Solar Energy:**
  - Capital goods for use in the manufacture of solar cells and panels are exempted from customs duty.
- **Leather and Textile:**
  - BCD is reduced on real downfilling material from ducks or geese.
  - BCD reduced, subject to conditions, on **methylene diphenyl diisocyanate (MDI)** for the manufacture of spandex yarn from 7.5 to 5 per cent.

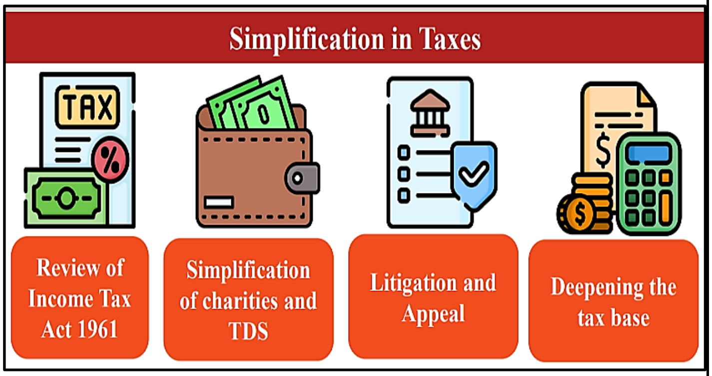
Direct Taxes:

- Efforts to simplify taxes, improve taxpayer services, provide tax certainty and reduce litigation are to be continued.
- Enhance revenues for funding development and government welfare schemes.
- 58 percent of corporate tax from the simplified tax regime in FY23, and more than two-thirds of taxpayers availed of the simplified tax regime for personal income tax in FY 24.



- **Simplification for Charities and of TDS:**
  - Two tax exemption regimes for charities to be merged into one.
  - The **5 per cent TDS** rate on many payments merged into the 2 percent TDS rate.
  - 20 per cent TDS rate on the repurchase of units by mutual funds or UTI withdrawn
  - TDS rate on e-commerce operators reduced from one to **0.1 per cent**.
  - The delay in payment of TDS up to the due date of filing the statement was decriminalized.
- **Simplification of Reassessment:**
  - **Assessment** can be reopened beyond three years up to five years from the end of the Assessment Year only if the escaped income is ₹ 50 lakh or more.

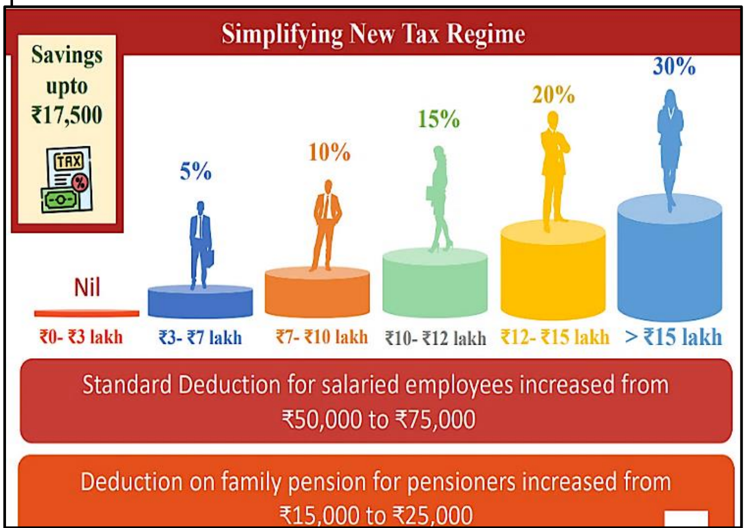
- In search cases, the time limit is reduced from ten to six years before the year of search.



- **Simplification and Rationalization of Capital Gains:**
  - Listed financial assets held for more than a year would be classified as **long-term**, while unlisted financial assets and all non-financial assets would have to be held for **at least two years** to be classified as **long-term.**
  - **Unlisted bonds and debentures, debt mutual funds and market-linked debentures, irrespective of the holding period**, would attract tax on capital gains at applicable rates.
  - Short-term gains on certain financial assets attract a tax rate of **20 per cent.**
  - Long-term gains on all financial and non-financial assets to attract a tax rate of **12.5 per cent.**
- **Taxpayer Services:**
  - All remaining services of Customs and Income Tax including rectification and order giving effect to appellate orders to be digitalized over the next two years.
- **Litigation and Appeals:**
  - **'Vivad Se Vishwas Scheme, 2024'** for resolution of income tax disputes pending in appeal.
  - Monetary limits for filing direct taxes, excise and service tax related appeals in **Tax Tribunals, High Courts and Supreme Court** increased to ₹60 lakh, ₹2 crore and ₹5 crore respectively.
  - Safe harbour rules expanded to reduce litigation and provide certainty in international taxation.
- **Employment and Investment:**
  - **Angel tax** for all classes of investors was abolished to bolster the start-up ecosystem.
  - The simpler tax regime for foreign shipping companies operating domestic cruises to promote cruise tourism in India.
  - Safe harbour rates for foreign mining companies selling raw diamonds in the country.
  - The corporate tax rate on foreign companies was reduced from 40 to 35 per cent.
- **Deepening tax base:**
  - **Security Transactions Tax** on futures and options of securities increased to 0.02 per cent and 0.1 per cent, respectively.
  - Income received on the buyback of shares in the hands of the recipient is to be taxed.
- **Social Security Benefits:**
  - **Deduction of expenditure** by employers towards NPS to be increased from 10 to 14 percent of the employee's salary.
  - Non-reporting of small movable foreign assets up to ₹20 lakh de-penalized.
- **Other major proposals in the Finance Bill:**
  - **An equalization levy** of 2 per cent was withdrawn.

Changes in Personal Income Tax under the new tax regime

- The standard deduction for salaried employees increased from **₹50,000 to ₹75,000**.
- Deduction on family pension for pensioners enhanced from **₹15,000/- to ₹25,000/-**
- Salaried employees in the new tax regime stand to save up to **₹ 17,500/- in income tax.**
- **Revised tax rate structure:**



Significance of such changes in taxation:

- **Removing the angel tax** is a very positive step to boost start-up morale.
- **Numerous reforms in tax law** operations are introduced to simplify the process for taxpayers and rationalize tax rates, ensuring the system remains straightforward, and inflation is controlled.
- The government's approach **ensures balanced and inclusive development, steering India towards a future of economic resilience and equitable growth.**
- The simplification of capital gains taxation and the introduction of a 20% tax on short-term gains will have multiple impacts. This will reduce **volatility, raise tax revenue, and have a long-term focus.**

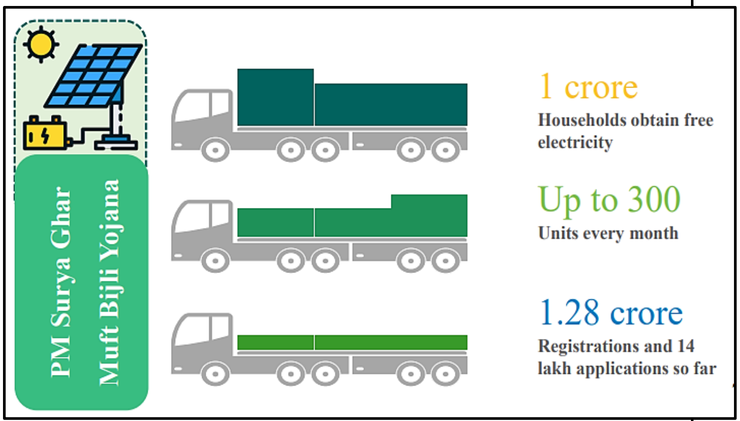
Clean Energy Initiatives

News Excerpt:

The Union Budget has given a **boost to several clean energy commitments** made in the interim Budget, although it **did not introduce any new schemes**.

About:

- The **Pradhan Mantri Surya Ghar Muft Bijli Yojna**, which aims to provide **subsidized rooftop solar installations** to **one crore households**, has been allocated nearly **₹10,000 crore** this year—more than double the ₹4,970 crore spent on solar power (grid) last year.



- This scheme offers **300 units of free electricity**, with households paying a **minimum of ₹20,000** based on the installed system's capacity, potentially offset by a **low-interest, collateral-free loan**.
- Only houses with suitable roofs and **existing grid connections** are eligible, and consumers will still pay for net power supplied and consumed via the grid.

Boost for Nuclear Energy:

- The Finance Minister announced that **National Thermal Power Corporation (NTPC) and Bharat Heavy Electricals Limited (BHEL)** are jointly setting up a highly efficient 800 megawatts **advance ultra supercritical (AUSC)** thermal power plant.
- The Minister emphasized investment in constructing **Small Modular Nuclear Reactors (SMRs)**, which are expected to play a crucial role in the energy mix for a developed India.
- The government plans to partner with the private sector to set up **Bharat Small Reactors**, conduct research and development for **Bharat Small Modular Reactors**, and explore new nuclear energy technologies.

Bharat Small Reactors (BSRs)

- BSRs are essentially **compact nuclear reactors** designed to generate electricity on a smaller scale compared to traditional large nuclear power plants.
- BSRs will be based on India's tried and tested **220-megawatt pressurized Heavy Water Reactor (PHWR) technology**, of which 16 units are already operational in the country.

- The R&D funding announced in the interim Budget will support this sector. **SMRs**, **compact versions of nuclear reactors**, provide up to **300 MW of power**.

New and Renewable Energy Sector:

- Union Budget 2024 has allocated **₹19,100 crore** to the **Ministry of New and Renewable Energy**, a significant increase from the revised estimates of ₹7,848 crore for Budget 2023-2024.
- Additionally, **₹851 crore** has been allocated to **wind and other renewable energy programs**, compared to the revised estimate of ₹946.30 crore.
- The **National Green Hydrogen Mission** will receive **₹600 crore**, up from the ₹100 crore allocated last year.
- The **bioenergy program** is also seeing a boost, with **₹300 crore** allocated this year compared to ₹75 crore previously.

Critical Mineral Mission:

- Government will establish a Critical Mineral Mission to **boost domestic production**, **recycling**, and **international acquisition** of critical mineral assets. It also aims to create an impetus for acquiring such minerals abroad.
- Critical Mineral Mission is complemented with **reduced import duties**. Budget proposed fully exempting customs duties on **25 critical minerals** and reducing basic customs duties on two, which will significantly boost the processing and refining of these minerals.
- Additionally, the government plans to **auction blocks for offshore mineral extraction**.
- This initiative aims to **reduce India's heavy reliance on imports** and mitigate risks from global geopolitical instability.

Compressed Biogas (CBG):

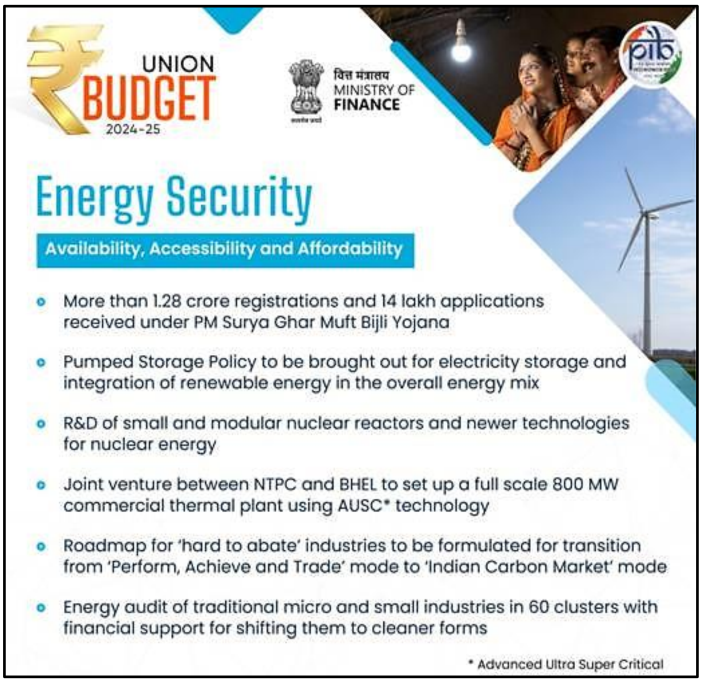
- The interim Budget laid the groundwork for major progress in biofuels, particularly through the phased integration of **Compressed Biogas (CBG) in both vehicles and households**. The plan targets the establishment of **750 CBG projects by 2028–29**, with an **investment potential of ₹37,500 crore**.
- It also introduced a **biomass collection financial assistance scheme**, allocating ₹564.75 crore until FY 2026–27 to support biogas producers by aiding the acquisition of biomass aggregation machinery.

Emission Targets Soon:

- For the first time, the Finance Minister's Budget speech indicated that **polluting industries** such as iron, steel, and aluminium would need to meet **specific emission targets**.
- **Current Scenario**:
    - Currently, Indian industries have **no emission restrictions** in exchange for **carbon credits** but are

incentivized to achieve **energy efficiency targets** through the **Perform, Achieve, Trade scheme** in place **since 2015**.

- While emission norms traditionally applied to large industries, the Budget suggests **tightening these norms for small and micro-scale industries** as well.



- **Implementation in a phased manner:**
  - An **investment-grade energy audit** of traditional **micro and small industries** in **60 clusters**, including brass and ceramic, will be facilitated.
  - **Financial support** will be provided to help them transition to cleaner energy sources and implement energy efficiency measures.
  - This scheme will be extended to **another 100 clusters** in the next phase.

India Carbon Market:

- The budget speech mentioned forming a pathway for **"hard to abate" industries** to shift from **energy efficiency targets** to **"emission targets"**.
- Appropriate regulations for transition of these industries from the current **'Perform, Achieve and Trade' (PAT)** mode to **'Indian Carbon Market'** mode will be put in place.
- These directives **align with the proposed India Carbon Market**, which has been in development for a few years.
- A carbon market or **emission trading scheme** functions as a platform where **carbon credits**, created by preventing carbon emissions, can be traded.

Social Sector

News Excerpt:

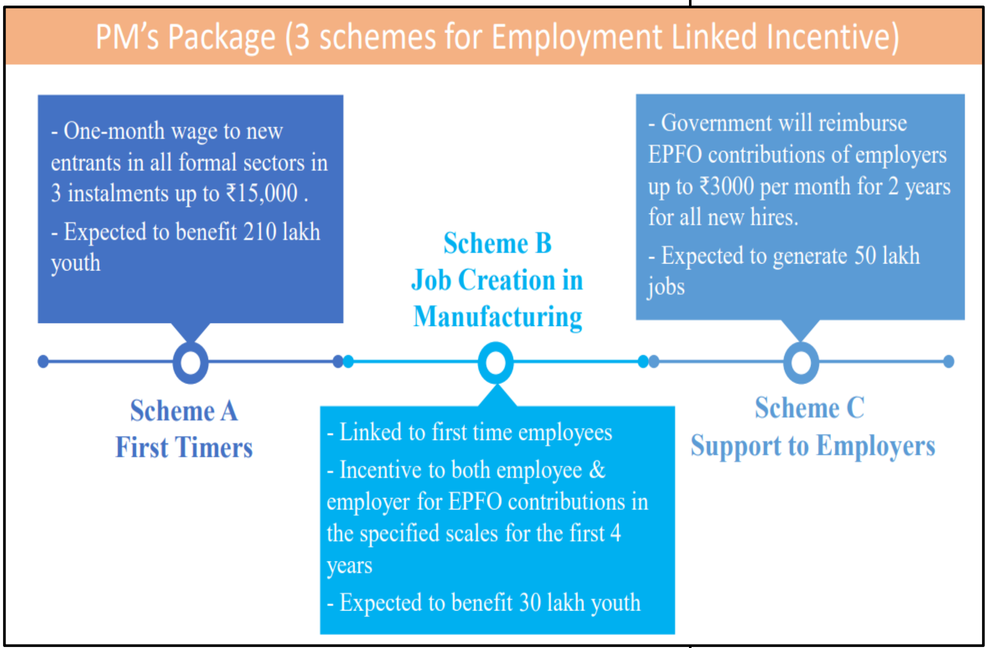
The first Union Budget of the new government saw a concerted effort at women led development, with the Finance Minister announcing more than **₹3 lakh crore for schemes benefiting women and girls.**

Key announcements in the social sector:

- **Women-led development:**
  - A new pension scheme named **'Vatsalya'** was launched in the budget.
  - It is a contributory pension scheme that will have contributions from parents and guardians.
  - For children attaining the age of majority (18 years), the plan can be converted seamlessly into a regular **National Pension System (NPS)** account.
  - The announcements include the setting up of special **working women's hostels** and **creches** in collaboration with industries to facilitate women's employment.
  - The allocations for schemes coming under the **Women and Child Development (WCD) Ministry**, including **'SAMARTHYA' (supporting projects such as women's hostels), 'Swadhar Greh', and 'Pradhan Mantri Matru Vandana Yojana',** have also been increased slightly.
  - The flagship schemes under the Ministry, including Saksham Anganwadi, **POSHAN 2.0**, **Mission Vatsalya and Mission Shakti,** have been given substantial funds to continue their efforts in improving nutrition, child protection, and women's empowerment.
  - The limit of **Mudra loans under the 'Tarun'** category is to be enhanced to **20 lakhs from 10 lakh** for those who have successfully repaid previous loans.
- **Education:**
  - As part of the **new loan scheme** announced**,** e-vouchers will be given to one lakh students every year to **secure loans up to ₹10 lakh to pursue higher education in domestic institutions.** The annual interest subvention will be 3% of the loan amount.
  - The allocation for the **Ministry of Education** at ₹**1.2 lakh crore** has seen a slight **increase at 7.14%** as compared with last year's **₹1.12 lakh crore.**
- **Health:**
  - The **Health Ministry** has been allocated ₹90,958.63 crore in the 2024-2025 budget, an increase from ₹80,517.62 crore in the 2023-24 revised estimates.
  - The budget allocation for the **AYUSH Ministry** has been increased from ₹3,000 crore to ₹3,712.49 crore.
  - The **Centre's flagship scheme, Ayushman Bharat Pradhan Mantri Jan Arogya Yojana (AB PM-JAY),** has got an allocation of ₹7,300 crore as compared with the previous allocation of ₹6800 crore.

- Additionally, the union finance minister announced **full exemption of customs duty on three key cancer drugs** to provide relief to cancer patients.
- The Budget also announced a **cut in customs duty** on components of **X-ray tubes** and digital detectors.

- **Employment and Skilling:**
  - Govt. announced that the **Model Skill Loan Scheme** will be revised to facilitate loans up to ₹7.5 lakh with a guarantee from a government promoted Fund, which is expected to help 25,000 students every year.
  - As part of the Prime Minister's package, 3 schemes for 'Employment Linked Incentive' are to be implemented - **Scheme A -** First Timers; **Scheme B -** Job Creation in Manufacturing; Scheme **C -** Support to Employers.



Labour related reforms

- **Shram Suvidha and Samadhan portals** will be revamped to enhance ease of compliance for industry and trade.
- **Others:**
  - **The Ministry of Minority Affairs** has seen a mere 2.7% increase, from funds allocated in the previous year's Budget Estimate (BE), for the financial year 2024-25 in the Union Budget.
  - The Finance Minister announced the **Pradhan Mantri Janjatiya Unnat Gram Abhiyan**.
  - More than 100 branches of **India Post Payment Bank** will be set up in the North East region to expand the banking services.

Language Platform:

- For the first time, ₹56 crore has been earmarked to establish the **'Bhartiya Bhasha Anubhag' (Indian Languages Department).**
- According to the **Official Languages Act, 1963**, **Hindi, the official language of the state and English can be used** for correspondence between Ministries and State governments.
- Additionally, **real-time proceedings of the Lok Sabha will be available in 10 languages**, a first in Parliamentary history.

Census Survey:

- A budget of ₹1,309 crore has been allocated for the Census survey and the Statistics/Registrar General of India for this year, down from ₹1,564.65 crore in 2023-24.
- The last census conducted in India was in 2011, and the **decennial counting measure has been postponed indefinitely since 2021.**

External Affairs

News Excerpt:

The **Ministry of External Affairs (MEA)** has been granted a record allocation of **Rs 22,154 crore**, marking a significant increase from the previous year's Budget of Rs 18,050 crore.

About:

- The Budget provides MEA with the resources to advance key policies, including **Neighbourhood First, Act East, and Global South,** and to support facilities for Indians travelling abroad.
- This substantial allocation has underlined India's strategic ambition to enhance its global influence and bolster its position as a leading voice among developing nations – **the 'Global South'.**
- The Budget for the MEA is carefully allocated across various sectors, such as **aid to foreign nations,**

Table O.1 World Bank country classifications and selected global indicators, 2022

INCOME CLASSIFICATION	SHARE OF GLOBAL POPULATION (%)	SHARE OF GLOBAL GDP (%)	SHARE OF PEOPLE IN EXTREME POVERTY GLOBALLY (%)	SHARE OF GLOBAL CARBON DIOXIDE (CO_2) EMISSIONS (%)
Low-income	8.9	0.6	36.5	0.5
Lower-middle-income	40.3	8.3	55.4	15.7
Upper-middle-income	35.1	30.3	7.1	48.6
High-income	15.7	60.8	1.0	35.2

establishment costs, and funding for autonomous bodies and international institutions.

- A notable portion of this Budget, Rs 5,667.56 crore, is designated for central programs and schemes aimed at **providing assistance to other countries,** particularly those requiring humanitarian support.
- This allocation also backs **international training programs** funded by India through multilateral and bilateral aid.
- This also includes the **'Scheme for Welfare of Women Abroad,'** providing financial, medical, and legal assistance from the **Nirbhaya fund** to women facing problems abroad.
- The contributions **towards international bodies have been reduced by 35.16%** in the Union budget 2024-25 from the revised estimates of 2023-24.

More about the allocation:

- The cut in allocation to the **Maldives** came amid **strain in ties** between the two countries since Mohamed Muizzu, known for his **pro-China leanings,** became president of the island nation in November last year.
- The amount for **African countries** has been pegged at **Rs 200 crore.**
- Separately, an amount of **Rs 989 crore** has been kept under the head **'advances to foreign governments'.**
- The **Chabahar port project in Iran** continues to receive a steady allocation of **Rs 100 crore,** unchanged for the past three years.

Country/ Category	Allocation (Rs crore)	Changes if any (-ve/+ve)
Bhutan	2,068.56	-232
Afghanistan	200	-
Bangladesh	120	-80
Nepal	700	+150
Sri Lanka	245	+95
Maldives	400	-
Myanmar	250	-150
Mongolia	5	-2
Mauritius	370	-90
Seychelles	40	+30

BANKING, PAYMENT SYSTEMS AND FINANCIAL MARKETS

Central Counterparties

News Excerpt

Recently, the European Securities and Markets Authority (ESMA) the market regulator of the EU financial markets has derecognized six Indian Central Counterparties (CCPs) in accordance with the European Market Infrastructure Regulation (EMIR).

ESMA	EMIR
• It is an independent EU authority. • It enhances the protection of investors and promotes stable and orderly financial markets. • It is the direct supervisor of specific financial entities such as credit rating agencies, securitization repositories, and trade repositories	• It is an EU regulation adopted in August 2012 which aims to reduce systemic, counterparty, and operational risk in the OTC derivatives market • It sets higher prudential standards for CCPs and trade repositories and enhances risk mitigation techniques for non-cleared derivatives. • It establishes a framework for the recognition and supervision of third-country CCPs

Understanding CCPs

- These are the financial institutions that act as an intermediary between buyers and sellers in various derivatives and equities markets.
- They help in facilitating the clearing and settlement process in financial markets.
- They increase the increasing efficiency and stability of financial markets by reducing the risk associated with counterparty, operational, settlement, market, legal, and default issues.
- They collect money from each party involved in the trade and in return guarantee the terms of the trade.
- They perform two functions:
  - Clearing:
    - Validate the details of the trade
    - Ensure both parties have sufficient funds to complete the transactions.
  - Settlement
    - Transfer of ownership of the asset- from the seller to the buyer
- CCPs dealing with money market instruments and foreign exchange derivatives are regulated by the Reserve Bank of India (RBI) under the Payment and Settlement Systems Act, 2007. While those dealing with securities and commodity derivatives are regulated by the Securities and Exchange Board of India (SEBI).

About Derecognition Decision

- ESMA de-recognised six CCPs which include:
  - The Clearing Corporation of India (CCIL)
  - Indian Clearing Corporation Ltd (ICCL)
  - NSE Clearing Ltd (NSCCL)
  - Multi Commodity Exchange Clearing (MCXCCL)
  - India International Clearing Corporation (IFSC) Ltd (IICC)
  - NSE IFSC Clearing Corporation Ltd (NICCL).
- These are derecognized due to their failure to meet all EMIR requirements.
- There are no cooperation arrangements between ESMA and Indian regulators – the RBI, the SEBI and the International Financial Services Centres Authority (IFSCA).
- India is opposing ESMA supervision as these domestic CCPs operate in India and not in the EU and hence are not subjected to the ESMA regulations.
- Further, India opined that these six CCPs have robust risk management and there is no need for a foreign regulator to inspect them

Impact of the decision

- These CCPs will no longer be able to provide services to clearing members and trading venues established in the EU.
- It will impact European banks functioning in India for two reasons
  - They will need as much as 50 times higher capital to carry out trades involving the Indian central counterparties.
  - If not then they will have to unwind positions with the central counterparties over the next 6 to 9 months.

RBI Surplus Transfer

News Excerpt

The Union Government has received a substantial fiscal boost as the Reserve Bank of India (RBI) has granted approval for a significant transfer of surplus funds. The surplus transfer for the accounting year 2022-23 totals Rs 87,416 crore, marking a remarkable 188% increase compared to the previous year.

Factors Responsible for the surge

- Public sector banks and oil marketing companies recorded higher dividends.
- Investments yielded increased earnings, while valuation changes on dollar holdings and revaluation of forex assets, along with adjustments in reserves as per the Bimal Jalan Committee recommendations, also contributed to the surplus.
- The impact of rupee depreciation against the dollar affected the surplus transfer.
- The surplus distribution framework with higher rates resulted in increased payouts.
- Earnings from the sale of foreign exchange and investments in US treasuries were higher.

Implication of the surge

- Offers fiscal relief to the government, particularly in addressing uncertainties in the divestment program and managing fiscal numbers.
- Helps mitigate potential shortfalls in tax buoyancy and other revenue sources.
- Tax buoyancy allows for increased revenue without raising tax rates.
- Provides a fiscal buffer to support budget targets and assists in offsetting potential losses from lower disinvestment, telecom pay-outs, or tax revenues.
- Enhances the government's ability to manage fiscal deficits with relative ease.
- Dividend inflows and a seasonal decrease in currency demand are expected to alleviate frictional liquidity in the near term.
- However, tight liquidity conditions may persist, necessitating the RBI to conduct open market operations worth Rs 1.5 lakh crore in the second half of FY24.

Understanding RBI's balance sheet

RBI's Income	RBI's Expenditure
• Interest earned from holdings of domestic and foreign securities. • Fees and commissions obtained from its services. • Profits generated from foreign exchange transactions. • Returns received from subsidiaries and associates.	• Printing of currency notes. • Payment of interest on deposits and borrowings. • Salaries and pensions of staff. • Operational expenses of offices and branches. • Provisions made for contingencies and depreciation.

- The **surplus** is the difference between RBI's income and expenditure.
- RBI transfers the surplus to the government after setting aside provisions for reserves and retained earnings.
- The transfer of surplus follows the guidelines of Section 47 (Allocation of Surplus Profits) of the Reserve Bank of India Act, 1934.
- In 2013, a technical Committee of the RBI Board, led by Y H Malegam, reviewed the adequacy of reserves and surplus distribution policy and recommended a higher transfer to the government.

Evergreening of Loans

News Excerpt

Recently, the Governor of the Reserve Bank of India (RBI) raised concerns regarding the adoption of overly ambitious growth strategies by banks and their involvement in the practice of evergreening loans. The governor stressed the importance of strong corporate governance and highlighted cases where the actual status of stressed loans was concealed.

About Evergreening of Loans

Evergreening loans involve extending new or additional loans to borrowers unable to repay existing loans. The practice aims to hide the true status of non-performing assets or bad loans. It is referred to as zombie lending and can create misleading impressions about asset quality and profitability.

- **Impact of Evergreening Loans:**
  - Creates a false impression of banks' asset quality and profitability.
  - Delays the recognition and resolution of stressed assets.
  - Undermines credit discipline and increases moral hazard among borrowers.
  - Erodes trust and confidence among depositors, investors, and regulators.
- **Loan Write-Off Vs. Evergreening:**
  - Loan Write-Offs:
    - Process of removing bad loans from banks' books after making provisions.
    - Borrowers remain obligated to repay, and banks continue pursuing recovery.
    - Aimed at cleaning up balance sheets and reflecting true financial positions.
    - Banks reduced non-performing assets by Rs 10,09,510 crore ($123.86 billion) in the last five years through write-offs.
  - Evergreening of Loans:
    - Practice of extending new or additional loans to borrowers unable to repay existing loans.
    - Conceals the true status of non-performing assets or bad loans.

Understanding NPAs

NPA refers to the classification of loans or advances that are in default or are in arrears on scheduled payments of principal or interest.

Banks are required to classify non-performing assets into three categories based on the duration of non-performance and the likelihood of recovery:

Sub-standard Assets: Sub-standard assets are those classified as NPAs for a period less than or equal to 12 months.

Doubtful Assets: Doubtful assets are assets that have remained non-performing for a period exceeding 12 months.

Loss Assets: Loss assets are assets that are deemed uncollectible and have little to no hope of recovery. These assets need to be fully written off.

RBI initiatives countering Evergreening of loans

- The RBI has advised banks to avoid over-aggressive growth strategies, under pricing or over-pricing of products, and concentration or lack of diversification in deposit or credit profile. These practices can expose banks to higher risks and vulnerabilities.
- **RBI's Support Measures for the Banking Sector:**
  - The RBI has implemented various measures to assist the banking sector, including providing liquidity support and regulatory forbearance.
  - Additionally, the establishment of an asset reconstruction company (ARC) and the introduction of a resolution framework have been initiated.

Approaches Utilized for Evergreening Loans

Selling and Buying Back Loans

- Loans or debt instruments are exchanged between two lenders to avoid classifying them as non-performing assets.
- This manipulation conceals the deteriorating financial condition of the borrower.

Structured Deals

- Good borrowers are convinced to enter into structured deals with stressed borrowers.
- The intention is to camouflage the default of stressed borrowers and maintain the appearance of normalcy.

Internal Account Adjustments

- Repayment obligations of borrowers are adjusted using internal or office accounts.
- This tactic masks the borrower's inability to meet their repayment obligations.

Renewing or Disbursing New Loans

- Stressed borrowers or related entities receive new loans or loan renewals near the repayment date of previous loans.
- By doing so, the true status of non-performing assets is concealed.

- **Emphasis on Risk Management and Governance:**
  - The RBI has emphasized that the support measures alone are insufficient if banks do not enhance their risk management and governance practices.
  - It highlights the need for banks to improve their overall risk assessment and governance frameworks.
- **Penalties for Non-Compliance:**
  - Several banks have faced penalties from the RBI for violating norms related to Know Your Customer (KYC), customer grievance redressal, fraud reporting, and other regulations.
  - These penalties serve as a reminder for banks to adhere to regulatory requirements.
- **Supervisory Actions for Governance Lapses:**
  - The RBI has initiated supervisory actions against some large private sector banks for lapses in governance.
  - This indicates the importance of maintaining robust governance practices within the banking sector.

Other measures to control Evergreening of loans

- **Robust Risk Assessment:**
  - Financial institutions should adopt robust risk assessment practices to accurately evaluate borrowers' creditworthiness.
  - Thorough due diligence, repayment capacity analysis, and assessment of the borrower's business model are essential in identifying potential risks and avoiding the need for evergreening loans.
- **Transparent Reporting and Disclosure:**
  - Transparent reporting and disclosure of loan portfolios, including non-performing loans (NPLs) and loan restructuring, are crucial in preventing evergreening of loans.
  - Accurate and timely information enables regulators, investors, and stakeholders to assess the financial health of banks and detect any potential evergreening practices.
- **Asset-Liability Management (ALM):**
  - Emphasis should be placed on proper asset-liability management (ALM) to address risks arising from maturity mismatches, interest rate fluctuations, and market risks.
  - Monitoring and assessing these risks help banks maintain a balanced and sustainable position.
- **Effective Communication and Media Interaction:**
  - Banks are advised to promptly engage with the media to counter misinformation or rumors on social media that could cause depositor panic.
  - Open and transparent communication helps maintain confidence in the banking system.
- **Compliance with ESG Norms:**
  - Banks need to adhere to Environmental, Social, and Governance (ESG) norms, which are increasingly important to investors and stakeholders.
  - Adopting sustainable practices, disclosing ESG performance, and aligning lending policies with climate change and social welfare goals are necessary.
- **Recommendations of P J Nayak Committee:**
  - The Committee to Review Governance of Boards of Banks suggests imposing penalties, such as cancelling unvested stock options and claw-back of bonuses, on officers involved in significant evergreening.
  - The Chairman of the audit committee may be asked to step down from the board in such cases. These measures promote accountability and deter evergreening practices.

Index Funds

News Excerpt

The survey conducted by Motilal Oswal Asset Management Company **(MOAMC)** revealed that **87%** of the respondents **prefer Index funds**, while **42%** opt for Exchange Traded Funds **(ETFs).**

About Index Funds:

- Index funds are a type of **passively** managed **mutual funds** that aims to replicate the performance of **specific market index**, such as **NIFTY 50** or **SENSEX**. These are a tool for passive investing.
- Passive investing broadly refers to a **buy-and-hold portfolio strategy** for long-term investment horizons, with minimal trading in the market. Index investing is perhaps the most common form of passive investing, whereby investors seek to replicate and hold a broad market index or indices.
- Other types of Passive investing include – **ETF's** and **Mutual funds**. Some popular index funds in India are – HDFC index fund, Nippon India Index, ICICI, TATA Nifty 50, SBI Nifty, etc.

Index funds	ETFs
• Passively managed mutual fund. • Managed by fund managers. • Aims to replicate the performance of specific market index.	• Passively managed investment fund. • Traded on stock exchanges like individual stocks. • Traded throughout the day like stocks.

• Traded at the end of the trading day. • May have minimum investment requirements. • Available for a range of asset class – stocks, bonds and even commodities. • Disclose their holdings on a quarterly basis.	• No minimum investment requirements. • Offer wider variety of investment options – specialized sectors, commodities and international markets. • Provide real time transparency into their holdings.

Category	Passive Investing	Active Investing
Process	Buy and hold securities for longer term	Frequent buying and selling of securities
Objective	Mirror significant stock indexes to be at par with the market	Investors try to outperform the market and reap more and more profits
Tenure	Long-term investment goals	Both short-term and long-term investment objectives

Reasons for popularity

- **Lower expense Ratios:** Expense ratio represents the portion of the funds' assets that are used to cover the costs associated with managing and operating the fund. Lower expense ratio means that a larger portion of the investment is retained, rather than being used to cover fund expenses.
- **Consistent returns:** The returns obtained from index funds are generally consistent in nature as compared to other passive investing tools such as ETF's and mutual funds. Thereby assuring a security of investment.
- **Change in tax laws regarding fixed income mutual funds:** Laws have influenced investor's decision to invests in index funds.
- **Transparent:** Index funds shows the volatility of the market right away, hence appears a safer alternative to invest.

Benefits provided by Index funds

- Index funds are often recommended for **long-term risk averse investors** because of their key advantages like – consistency and lower costs. Over the longer periods, stock market tends to appreciate and index funds provide **good returns**.
- They reduce the risk of individual stocks picking as index funds **offer diversification** over a wide range of stocks and sectors.
- They don't require constant **monitoring**, **research** and tactical **decision making** by the investors.

Challenges of over reliance on Index funds

- Index funds are designed to match the performance of their **underlying index**, this means they **won't outperform** the index. It limits their ability to produce good returns.
- Similarly, Index funds are constrained by the **composition** of their **underlying index**, this means if some stocks in the index **performs poorly**, index funds will **still hold** onto them. They do **not** have **flexibility** to adjust their portfolio.
- Index funds are highly **concentrated** in few stocks and sectors, it makes them **vulnerable** to **higher exposure** to the specific sectors.
- Index funds are dominated by large cap stocks, leaving out mid cap and small cap ignored.

Way forward

- There is a need of having **diverse portfolio** as compared to much dependence on index funds.
- Investors should be **educated** regarding the **lopsided nature** of their investment, so as to **minimize the risk** associated with it.
- Further, the authorities should create a **personalized risk assessment** of the investor, in line with the investment **objectives**, **risk tolerance** and **time of investment** of the investor.

CAPITAL ADEQUACY FRAMEWORK

Recently, the Finance Minister of India met the World Bank President and Asian Development Bank (ADB) chief on the sidelines of the G20 Leaders' Summit and called for **speedier implementation of capital adequacy framework** measures by Multilateral Development Banks (MDBs).

What is Capital Adequacy?

- It refers to the **minimum amount of capital,** a bank or financial institution must **maintain to absorb losses** and continue functioning during **financial distress.**
- It is a critical concept in the banking and financial sector, as it **ensures the stability and solvency of financial institutions**, **reduces the risk of bank failures** and promotes financial stability within the broader economy.
- **The Capital Adequacy ratio (CAR)**: It is an indicator of how well a bank can meet its obligations. Also, known as the **capital-to-risk weighted assets ratio (CRAR)**, the ratio compares capital to risk-weighted assets and is watched by regulators to determine a bank's risk of failure. It's used to protect depositors and promote the stability and efficiency of financial systems around the world.

Multilateral Development Bank (MDB):

- It is an international financial institution chartered by **two or more countries** for the purpose of encouraging economic development in developing nations. Multilateral development banks consist of member nations from **developed and developing countries**.

- MDBs provide loans and grants to member nations to fund **projects that support social and economic development**, such as the building of new roads or providing clean water to communities.
- Unlike commercial banks, MDBs **do not seek to maximize profits for their shareholders**. Instead, **they prioritize development goals** such as ending extreme poverty and reducing economic inequality.
- They often **lend at low or no interest** or provide grants to fund projects in infrastructure, energy, education, environmental sustainability, and other areas that promote development.

Significance of capital adequacy for MDBs:

- **Expand lending capacity**: Adequate capital allows MDBs to expand their lending capacity and take on larger and more ambitious projects. For example, the African Development Bank's increased capital base in recent years has enabled it to scale up its lending capacity and finance more extensive projects
- **Manage risks effectively**: Capital adequacy enables MDBs to manage risks effectively.
- **Ensure their financial stability:** MDBs need to maintain sufficient capital to ensure their financial stability and credibility. For example, during the global financial crisis in 2008, the World Bank increased its capital base to maintain financial stability and continue its support for developing countries.
- **Maintaining a high credit rating**: It is crucial to maintain a high credit rating, which allows MDBs to borrow at favourable interest rates in international markets. For example, the Asian Development Bank's AAA credit rating enables it to borrow funds at lower interest rates.

How much capital is 'adequate' for an MDB?

- The financial risks posed by **MDB operations** are very **different from those of commercial banks** because of their **official standing and development mandate**, so they cannot simply apply commercial bank capital adequacy standards such as the Basel III guidelines.
- MDB finance teams and the credit rating agencies take **different approaches to MDB capital adequacy.** This makes it difficult for shareholder governments to compare across institutions and figure out **how much an MDB can prudently lend based on its capital.**
- In response, the **G20 established the independent review to evaluate MDB capital adequacy**. Based on the evidence, the review panel concluded that government shareholders, MDB management and credit rating agencies have **overestimated the financial risks facing MDBs** by underestimating their unique strengths.

Review of MDBs' Capital Adequacy Frameworks:

Independent **Review of MDB's Capital Adequacy Frameworks submitted its report to G20 finance ministers**. The expert panel submitted its independent review in 2022 under the Indonesia Presidency which is as follows:

- The MDBs should **reduce their dependence on rating agencies** and build **internal risk metrics**.
- There should be **callable capital**, which means that the shareholders should be willing to pay back the bondholders in case of negative shocks to the MDBs.
- Expand the use of **financial innovations** to diversify the risks of loans and access markets for finance.
- The credit rating agencies should refine their methodologies "to better account for the unique mission, track record and financial strength of MDBs".

G20's New Delhi Declaration:

- The New Delhi declaration **endorsed the G20 Roadmap** for Implementing the Recommendations of the G20 Independent Review of MDBs' Capital Adequacy Frameworks, which could yield additional financing of **$200 billion over the next decade**.
- It is an important step towards recognizing the need for strengthening financial capacities at MDBs to help nations deal with global challenges, apart from development challenges.

Conclusion:

Capital adequacy is important for MDBs to fulfil their missions effectively. It ensures financial stability, credibility, and the ability to support development projects that have a substantial impact on member countries. MDBs' financial strength enables them to address a wide range of development challenges and promote sustainable economic growth worldwide.

SELF REGULATORY ORGANISATION FOR FINTECHS

News Excerpt:

RBI Governor Das has said that **Fintech needs to evolve industry best practices, privacy and data protection norms** in sync with the laws of the land, set standards to avoid mis-selling, promote ethical business practices and transparency of pricing.

FINTECH:

- Fintech, a combination of the terms "financial" and "technology," refers to businesses that use technology to **enhance or automate financial services and processes**.
- The term encompasses a **rapidly growing industry** that serves the interests of **both consumers and businesses** in multiple ways.
- From mobile **banking and insurance** to **cryptocurrency and investment apps**, fintech has a seemingly endless array of applications.

- The Indian fintech industry is expected to generate approximately **$200 billion in revenue by 2030,** making it a key driver of economic growth.
- As per RBI, **Self Regulatory Organization (SRO)** would provide fintech firms a platform to voice their requirements while alleviating the RBI from shouldering the entirety of regulatory responsibilities.

Self Regulatory Organization (SRO):

- A **SRO** is an entity such as a **non-governmental organization**, which has the power to create and enforce **stand-alone industry and professional regulations and standards** on its **own.**
- Effective SROs are able to provide standards and enforcement of those standards on their members. Although SROs can be privately owned, the government can still dictate their broader policies.
- India currently has several SROs operating in various segments. One notable example is the **Foreign Exchange Dealers Association of India (FEDAI).** Recently, the **Google Play Store** introduced real-money games on its platform, which have been approved by self-regulatory bodies established under new online gaming rules in India.

Functions of an SRO:

- **Two-way communication channel**: The recognised SRO will serve as a two-way communication channel between its members and the RBI.
- **Instill professional and healthy market behaviour**: It will work towards establishing minimum benchmarks and standards and help instil professional and healthy market behaviour among its members.
- **Training the staff**: SROs will impart training to the staff of its members and others and will conduct awareness programmes.
- **Uniform grievance redressal management:** It will establish a uniform grievance redressal and dispute management framework across its members.

Need for SRO:

- As per RBI, the fintechs have been resorting to **coercive tactics** to grow their business.
- Issues **around data privacy, aggressive collection tactics and building products** that are pushing regulatory boundaries have been called out by the RBI.
- The RBI governor pointed out that by laying out clear governance structures, fintechs can show their commitment towards **accountability, transparency and responsible decision-making**.

Benefits of SRO:

- **Experts in fields**: SROs are widely considered experts in their fields and so have in-depth knowledge of the markets they operate in. This is helpful to their members as they can be called in to participate in deliberations and learn more about the nuances of the industry.
- **Following standard of conduct**: Formation of SROs ensures member organisations follow a certain standard of conduct that helps **promote ethical ways of doing business**, which can lead to enhanced confidence in the ecosystem.
- **Serve as a watchdog**: They can serve as a watchdog to guard against unprofessional practices within an industry or profession.
- A self-regulatory framework can **bolster protection against systemic risks, and strengthen the global competitiveness** of the sector.
- **Common voice for fintech players**: SRO would provide a common voice for fintech players, helping them communicate and collaborate effectively with regulators and fellow industry members.
- **Avoid over-regulation**: RBI cannot govern everything, it will regulate banks and NBFCs, and through them digital lenders and fintechs. An SRO structure will help avoid over-regulation from these entities, and also **create an additional layer of supervision and communication.**

Challenges related to SRO:

- **Complex task**: One of the primary challenges lies in the complex task of striking a careful **balance between profitability and adhering to a customer-centric approach**.
- Even with self-regulatory bodies in place, enforcing regulations can be challenging. Fintech companies may **lack the incentive or resources to enforce** regulations rigorously, leading to compliance gaps.
- The rapidly evolving nature of fintech can make it difficult for self-regulatory bodies to **keep up and establish appropriate guidelines**.
- **Smaller fintech startups may struggle** with compliance costs associated with self-regulation.

Conclusion:

The RBI's proactive decision to establish a Self-Regulatory Organization (SRO) will go a long way in encouraging fintech companies to self-regulate, foster transparency, fair competition and consumer protection.

India's 50-year bond

News Excerpt:

India debuted and fully sold its **first-ever 50-year bond** at a cut-off yield of 7.46%.

About the news:

- The government sold **100 billion rupees worth of the 2073 bond** to fulfill a long-standing demand by life insurance companies and pension funds, notably the Life Insurance Corporation of India (LIC).

- The inaugural auction of India's 50-year bond saw robust demand, signaling a growing interest in **ultra-long-term securities** among insurance companies and pension funds.
- The government's issuance of long-term bonds can extend the tenure of **debt sales** and manage interest costs effectively.

Why demand for the 50-year bonds?

- Over the past few years, insurers and pension funds have increased their purchases of government debt due to the strong demand for their financial products.
- Insurance products often necessitate an additional 10 years of bond duration to align with asset-liability management gaps.
- A 50-year bond will likely lead to a flat yield curve, extending the maturity of the government's debt while keeping its overall interest costs in check. It will also extend the weighted average maturity of outstanding bonds.

What is a bond?

A bond is a debt instrument in which an investor loans money to an entity (typically corporate or government) that borrows the funds for a defined period of time at a variable or fixed interest rate. **Companies, municipalities, states, and sovereign governments** use bonds to raise money to finance various projects and activities. Owners of bonds are debt holders, or creditors, of the issuer.

About Bond Yield:

- Bond yield is the return an investor realizes on an investment in a bond. A bond can be purchased for more than its face value, at a premium, or less than its face value, at a discount. Price and yield are **inversely** related, and as the price of a bond goes up, its yield goes down.

Relation between interest rates and bond price & bond yield:

- **Interest rates**: These rates are set by RBI and influence the overall cost of borrowing and returns on investments. Higher interest rates generally attract foreign investors seeking better returns, while lower rates may deter them.
- **Bond Prices**: Bond prices have an **inverse correlation** to interest rate movements, that is, if market rates increase after a bond issue, the price of these bonds declines, and vice-versa.

If interest rates RISE: **If interest rates FALL:**

FACTORS AFFECTING GOVERNMENT BOND PRICES:

Economic Conditions:		
	Interest Rate Risk	More significant for long-term bonds, as they are exposed to price fluctuations over a longer duration.
	Inflation Risk	To fixed-income investments like government bonds, as it erodes the purchasing power of money over time.
	Credit Risk	Generally considered low-risk due to government backing, but variations exist among different governments.
	Liquidity Risk	Selling bonds before maturity could be challenging, as finding buyers or selling at a discounted price may impact the overall return on investments.
Market Sentiment		Investor sentiment and market psychology can impact bond prices.
Demand and Supply in the Bond Market		High demand for government bonds can increase prices, while oversupply can decrease prices.
Geopolitical Events		Create uncertainty in financial markets, leading investors to seek safety of government bonds, driving up prices. **E.g.**- Interest rate hike by US Fed, cause more capital flows towards the US economy.

- **Bond Yields**: They reflect the fixed interest payments as a percentage of the bond's current price. Rising interest rates lead to higher bond yields, making bonds more attractive to foreign investors seeking better returns.

Types of Government Bonds in India:

- **Government Securities (G-Secs Bonds):** Long-term debt instruments issued by the Government of India through auctions conducted by the Reserve Bank of India (RBI).
- **State Development Loans (SDLs)**: Issued by the State Governments and RBI coordinates the actual process of selling these securities.
- **Treasury bills (T-Bills):** Short-term debt instruments issued by the Government of India and presently issued in three tenors, namely, 91 days, 182 days, and 364 days.
- **Inflation-Indexed Bonds (IIBs):** The principal value of these bonds is adjusted for inflation, and they offer a fixed interest rate on top of the inflation-adjusted principal.
- **Sovereign Gold Bonds (SGBs):** Dated government securities denominated in grams of gold. The RBI Gold Bond scheme allows investors to invest in gold without holding physical gold. **Recently, they have been allowed for NRIs as well**.
- **RBI Floating Rate Bond**: Unlike traditional fixed-rate bonds, the interest rate on these bonds is not fixed but fluctuates periodically based on changes in a reference rate. In the case of RBI Bonds, the reference rate is usually the Repo Rate set by the Reserve Bank of India (RBI).

Way Forward:

India's debut of a 50-year bond with a 7.46% yield signals strong demand from life insurance companies, reflecting a growing interest in long-term securities. This issuance helps the government manage its debt tenure and interest costs, extending beyond previous 40-year bonds.

Default Loss Guarantee guidelines by RBI

News Excerpt:

RBI issued the **Default Loss Guarantee (DLG)** guidelines.

What Is Fintech?

- Fintech refers to the application of software and hardware to financial services and processes, making them faster, easier to use and more secure.
- The fintech industry includes everything from payment processing solutions to mobile banking apps. Examples of fintech companies are Paytm, Lendingkart, Bharat Pe, PhonePe, etc.

The guidelines are as follows:

- As per the guidelines, any arrangement between Regulated Entities (REs) and Lending Service Providers (LSPs) or between two REs involving DLG or First Loss Default Guarantee (FLDG) will have to adhere to these guidelines. These guidelines apply to **NBFCs, Commercial banks, Urban co-operative banks, State co-operative banks, and central co-operative banks.**
- The overall DLG cover under the upfront guarantee arrangements for any active loan portfolio shall **not exceed 5%** of that loan portfolio's value.
- The DLG provider shall not bear a performance risk of more than the **equivalent amount of 5%** of the underlying loan portfolio for implied guarantee arrangements.
- The RE will accept DLG only in **cash deposits, fixed deposits** maintained with Scheduled Commercial Banks, and lien marked in favour of RE.
- The Timeline for DLG invocation will be a **maximum overdue period of 120 days**.
- Disclosure requirements: The RE with a DLG agreement can publish their details on the website, like the total number of portfolios, number of portfolios, etc.

First loss default guarantee (FLDG):

- In India, banks and non-banking financial companies ('NBFCs') are permitted to extend loans, whilst Fintechs such as lending service providers ('LSPs') specializes in ancillary functions such as customer acquisition, underwriting and pricing support, servicing, recovery and technological support and infrastructure.
- If banks and NBFCs are hesitant to extend loans in certain instances, the LSPs may guarantee a part of the loss (up to a certain percentage) if the borrower defaults in repayment.
- This concept in the digital lending space is called **First Loss Default Guarantee ('FLDG') or Default Loss Guarantee ('DLG').**

Way Forward:

- Formalizing this FLDG arrangement is a much-needed reform for the whole ecosystem. Capping deposits at 5% helps spur the creation of innovative products in the country.
- It will also help the digital lending sector grow and facilitate all players' participation in this space.
- These guidelines specify details on scope, eligibility, structure, form, cap, disclosure requirements, and associated exceptions, as clarity was the most requested by the players in the sector.

Widening liquidity deficit in the Indian banking system

News Excerpt:

RBI addresses the banking system's increased liquidity deficit by injecting ₹2.50 lakh crore via a **15-day Variable Rate Repo (VRR)** auction.

About the news:

- The Central Bank took this decision as the overall liquidity deficit in the banking system widened to **₹3.34-lakh** crore on January 23, 2024, as compared with ₹**1.29-lakh crore** as of January 1.

Causes of Liquidity Pressure on Banks in the recent time:

- **Outflows due to GST payments and advance tax**: Banks are facing pressure on the liquidity front as there were outflows on account of **GST payments** and **advances tax outflows**.
- **Accumulation of cash balances**: The Central Government has accumulated cash balances (estimated at about ₹2-lakh crore) with the RBI, further restricting available liquidity for banks.
- **Intense competition from NBFC**: Banks are facing stiff competition from non-banking finance companies to garner resources.
  - Non-convertible debentures floated by NBFCs offer relatively higher returns (up to 10%) against Bank term deposit rates of 6.50-7.25 for over a one-year tenor.
- **The surge in equity investment**: The surge in retail investment in **equity markets**, including **initial public offerings (IPOs) and mutual funds,** contributes to the liquidity challenge for banks.

Currency leakage: It means there is more money with the public and fewer deposits in the bank, thereby reducing the amount the bank can lend out, resulting in a lower money supply.

Suggestions to ease liquidity pressure:

- **Government Spending of Accumulated Balances**: The market players suggest that the liquidity pressure could

Liquidity in the banking system:

- Liquidity in the banking system refers to readily available cash that banks need to meet short-term business and financial needs.
- **Liquidity in the banking system includes** VRR auctions, liquidity drawn from the marginal standing facility, surplus funds parked at the standing deposit facility, and liquidity infused by the RBI via various long-term repo operations during the COVID-19 period (2021).
- **The liquidity deficit** means the amount of funds banks need to borrow from the **interbank market or from the central bank.**
- In the case of borrowing from RBI, if the banking system is a **net borrower from the RBI** under the Liquidity Adjustment Facility (LAF), the system liquidity can be said to be in **deficit**, and if the banking system is a net lender to the RBI, the system liquidity can be said to be in surplus.
- The LAF refers to the RBI's operations through which it injects or absorbs liquidity into or from the banking system.

Variable Repo Rate (VRR):

- When RBI desires to **infuse liquidity in the economy,** but Banks are not eager to borrow from RBI at Repo Rates as interest rates in the economy may already be lower, RBI allows Banks to borrow at rates decided by the market, generally lower than Repo Rate.
- In short, the RBI conducts variable rate repo auctions to infuse system liquidity.

Variable Reverse Repo Rate (VRRR)

- VRRR is a sub-type of reverse repo. It is kept higher than the reverse repo rate but lower than the repo rate to attract funds from banks.
- To enjoy the higher rates, banks would attract deposits, and to do so, they would offer higher interest rates on deposits. This way, money will go from the depositors to the banks and from the banks to the central bank, thus leading to less liquidity.

ease if the Government starts spending the balances accumulated with the RBI.

- **RBI Absorption of Foreign Portfolio Investors' Dollars**: They also suggest that if the RBI absorbs the dollars that foreign portfolio investors are bringing into the Indian equity market, it could enhance liquidity.
- The monetary policy stance should change to '**neutral' from 'withdrawal of accommodation' to maintain consistency of stance and action.**
- **Neutral stance:** The infusion of durable liquidity is becoming necessary, and idealistically, the monetary policy stance should change to **'neutral**' from **'withdrawal of accommodation'** to maintain consistency of stance and action
- **Permanent liquidity measures through OMO**: Analysts suggest the RBI announce permanent liquidity measures such as **open market operations (OMO)** purchases to ease liquidity deficit conditions in the banking system **rather than** variable repo rate auctions (VRR) to infuse temporary liquidity.

Way Forward:

Thus, to address the liquidity challenges, proactive measures by RBI and potential government spending are expected to foster a positive impact, ensuring stability and opportunities for borrowers and investors in the evolving financial landscape.

New UPI rules for access to prepaid instruments

News Excerpt:

The **Reserve Bank of India (RBI)** has proposed to allow individuals to make payments from **prepaid payment instruments (PPIs)** like digital wallets using UPI through any third-party app.

Current practice:

- **UPI payments** from **bank accounts** can be made by **linking a bank account** through the **bank's UPI app** or **using any third-party UPI application.**
- However, the **same facility is not available for PPIs.**
    - **PPIs** can currently be used to make UPI transactions **only by** using the **application provided by the PPI issuer.**

What are Prepaid Payment Instruments?

- PPIs are instruments that facilitate the **purchase of goods and services,** conduct of **financial services,** enable **remittance facilities**, etc., against the **value stored** therein.
    - They include **wallets, cards,** and **vouchers, which can be used to purchase goods and services** and **make fund transfers.**
    - They **offer convenience** and **security, promoting digital transactions** and **financial inclusion.**
- **RBI** has introduced PPIs through powers conferred under the **Payment and Settlement Systems Act of 2007**.
- **Banks and non-banks can issue PPIs** after approval from the RBI.
- **PPIs operate independently of a user's bank account.**
    - When you use **PPIs** such as **wallets or cards** to make a payment, the **money is deducted from the associated prepaid account.**
    - Now, **wallets** can only be used to make **UPI payments** using **applications provided** by the **same PPI issuer (like PhonePe or PayTM).**
- PPIs are **integral to modern digital economies, facilitating efficient, accessible monetary exchanges** without physical cash.

What are Closed System PPIs?

Closed System PPIs are issued by an entity to **facilitate the purchase** of **goods and services from that entity only.**

- These instruments **cannot be used** for payment or settlement **for third-party** services or **cash withdrawals.**

- The issuance or operation of such instruments is **not classified as a payment system requiring RBI approval/authorization** and is, therefore, **not regulated or supervised by RBI.**
    - New proposed changes will also not apply to closed-system PPIs.

What are the proposed RBI rules for PPIs using UPIs?

- To provide more flexibility to PPI holders, RBI has proposed to permit the **linking of PPIs** through **third-party UPI applications.**
- This will enable the **PPI holders** to make **UPI payments** like **bank account holders.**
- This will allow **all Full KYC PPI Wallets** to become **interoperable**, just like bank accounts and RuPay credit cards, where such instruments can be linked to any UPI App.

How will it benefit the users?

- The RBI's decision to enable PPI linking through third-party UPI apps means users can now **integrate their prepaid wallets** or **cards** with these apps.
    - Customers will be able to **use any of their UPI apps** to access any of their **wallets,** even if the wallet and the UPI app belong to different companies.
- It will ensure **smooth transactions directly from their PPIs** without the prerequisite of transferring funds to a bank account first.

Unified Payments Interface (UPI):

- It is an **instant payment system** developed by the **National Payments Corporation of India (NPCI),** an RBI-regulated entity.
- UPI is built over the **IMPS infrastructure** and allows you to transfer money between any two parties' bank accounts instantly**.**
- It powers **multiple bank accounts** into a **single mobile application** (of any participating bank), merging several banking features, seamless fund routing & merchant payments into one hood.
- It also caters to the **"peer-to-peer"** collection request, which can be scheduled and paid as needed and convenient.
- **UPI was launched in 2016 by NPCI.**

Way Forward:

This strategic move aims to **boost the flexibility** and **efficiency of digital payments, simplifying transactions for consumers** and **expanding the range of services** accessible through their preferred payment methods.

Financial Stability Report

News Excerpt:

The Reserve Bank of India published its 29th issue of the **Financial Stability Report** (FSR) in June 2024.

More details about the news

- It is a **half-yearly publication**, with contributions from all financial sector regulators.
- It presents the **collective assessment** of the Sub Committee of the Financial Stability and Development Council on current and emerging risks to the stability of the Indian financial system.

Key Highlights:

- The **global economy** is encountering heightened risks due to prolonged **geopolitical tensions**, **high public debt**, and **slow progress in reducing inflation**.
- Despite these challenges, the **global financial system** has remained resilient, maintaining **stable financial conditions**.
- The **Indian economy** and financial system continue to be **robust and resilient**, underpinned by **macroeconomic and financial stability**.
- **Improved balance sheets** have enabled **banks and financial institutions** to support economic activity through **sustained credit expansion**.
- As of the **end of March 2024**, **scheduled commercial banks (SCBs)** had a **capital-to-risk-weighted assets ratio (CRAR)** of **16.8%** and a **common equity tier 1 (CET1)** ratio of **13.9%**.
- **SCBs' gross non-performing assets (GNPA)** ratio fell to a multi-year low of **2.8%**, with the **net non-performing assets (NNPA)** ratio at **0.6%** as of the end of March 2024.
- **Macro stress tests** for **credit risk** indicate that **SCBs** would meet **minimum capital requirements**, with the system-level CRAR projected at **16.1%, 14.4%, and 13.0% in March 2025** under **baseline, Medium, and severe stress scenarios, respectively**.
- These scenarios are **conservative assessments** under **hypothetical shocks** and should not be interpreted as forecasts.

Capital to Risk-Weighted Assets Ratio (CRAR)

- The **CRAR**, commonly referred to as the **capital adequacy ratio (CAR)**, is a crucial financial metric for investors and analysts.
- This ratio **assesses a bank's financial stability** by comparing its **available capital** to its **risk-weighted credit exposure**, expressed as a percentage.
- **CAR = (Tier 1 Capital + Tier 2 Capital) / Risk Weighted Assets**

Non-Performing Asset (NPA)

- **NPA** is a loan or advance for which the **principal or interest payment** remained **overdue for a period of 90 days**.

Gross Non-Performing Assets (GNPA)

- It provides the overall value of the **bank's gross non-performing assets** over a given time period.

Net Non-Performing Assets (NNPA)

- The net NPA is calculated by **subtracting the bank's provisions** from the **gross NPA**.
- Therefore, after the bank has made certain provisions, net NPA provides the **precise value of non-performing assets**.

- **Non-banking financial companies (NBFCs)** remain healthy, with a **CRAR of 26.6%**, a **GNPA ratio of 4.0%**, and a **return on assets (ROA)** of **3.3%** at the end of March 2024.

EXTERNAL SECTOR

India's CAD Narrows Sharply

India's Current Account Deficit (CAD) **narrowed sharply** in Q4 Fiscal Year (FY) 22- 23 to $1.3 billion or 0.2% of Gross Domestic Product (GDP). A year ago, in Q4, the CAD was at $ 13.4 billion, or 1.6% of GDP.

About:

- The current account deficit is a key indicator of a country's external sector. When the **value of the goods and services that a country imports exceeds the value of the products it exports**, the country finds itself in a Trade Deficit (TD).
- Trade of Goods and Services is the largest component of the Current Account; thus, a Trade deficit typically leads to a Current account deficit as well.
- A study of CAD remains important as it affects the overall economic sentiments both international and domestic, people's investments as well as stock market performance.

Why has India's CAD narrowed sharply?

- **Lower trade deficit**: As per RBI, the sequential decline in CAD was mainly due to a **moderation in the trade deficit**.
- **Robust services exports**: The services trade surplus rose due to a healthy uptick in services exports such as **IT, business, and travel services**.
- **Increase in remittances**: The RBI's data revealed that private transfer receipts, mainly representing remittances by Indians employed overseas, increased.
- **Lower outflow of Net FPI:** Net foreign portfolio investment (FPI) recorded a lower outflow as compared to the last fiscal.
- **Lower net external commercial borrowings**: Net external commercial borrowings to India recorded an inflow of $1.7 billion, as against an outflow of $2.5 billion during Q3.

Advantages of a low CAD:

- **Signals economic stability**: A lower CAD leads to an increase in positive rational expectations in the market that stems from safe and secure parking of funds. This signals the stability of the Indian Economy.
- **Improvement in sovereign credit rating**: When there is a lower deficit, it is seen as a positive sign by credit rating agencies. The lower the deficit, the more stable the macro-economic parameters of the country leading to better chances of debt repayment.
- **Reduced the cost of borrowing**: India's improved credit rating can reduce the cost of borrowing for the government and businesses. As per the theory of the discriminatory rate of interest, credit-worthy businesses are charged a lower rate of interest.
- **Appreciation of the Indian Rupee**: If the CAD is low then it leads to an appreciation of the Indian rupee against other currencies. With added confidence of stability, exports increase and lead to a greater demand for the Indian rupee, leading to the appreciation of the domestic currency.

Current Account- The exchange of goods, services and transfer payments is recorded for the current period and hence it is called current account. **Can there be a CAD, with trade surplus?** Yes, it is factually possible but highly unlikely in real world.

India's Main Challenge: A High CAD

Emerging economies tend to have a higher value of CAD than their developed counterparts as they import from others more than what they export from others.

Is a high value of CAD bad?

- It depends on **how the money was financed** and **what the borrowed money is being used for.**
- If the money is majorly financed from outside, this gives more ownership to foreign holders in our capital assets with an added fear of rapid outflow of funds, leaving the domestic economy vulnerable.
- If it is being used for capital investments rather than day-to-day expenditures, then in the long run, this would lead to the creation of capital infrastructure as well as a repayment of the acquired debt as it starts the virtuous cycle of employment.

Measures taken by India to moderate its CAD

- **Boosting domestic manufacturing:** Aatmanirbhar packages, Make in India campaign, Production Linked Incentive (PLI) scheme, Mega Food Parks, National Monetization Pipeline and National Infrastructure Pipeline etc. are being used to take investments to improve manufacturing capabilities and reduce import bills.
- **Focusing on Export-Led Growth:** The government is encouraging exports by providing incentives for export-oriented industries such as RoDTEP, SEIS, and NIRVIK scheme as well as GST refunds for exporters.
- **Enhancing the competitiveness**: The competitiveness of Indian products is being enhanced through quality improvement and cost reduction with schemes such as the National Manufacturing Competitiveness Programme and Zero Defect, Zero Effect.
  - **Attracting FDI:** Promoting FDI in sectors that can help boost exports and reduce import dependency such as allowing automatic route in FDI, Ease of doing business, reducing corporate tax rates and Modified Electronic Manufacturing Clusters etc.

- o **Reducing reliance on oil imports:** Energy conservation measures, boosting the use of renewable energy such as through International Solar Alliance, Renewable Purchase Obligations as well as E-vehicles, and flexi fuel cars are steps taken in this regard.
- **Diversifying export markets:** Reduce reliance on a few major trading partners. Schemes such as Focus Market, Focus Product and using Defence Attaches in foreign missions are a step towards the same.

Conclusion:

Prudent economic policies and associated government interventions can help India achieve a more sustainable balance in its current account in the long run. **Moderate figures of CAD financed by stable domestic and foreign investments** would prove to be beneficial in the long run for the stability of the Indian currency as well as the Indian economy overall.

INDIA IMPOSES ANTI-DUMPING DUTY ON CHINESE STEEL

News Excerpt:

India imposed an anti-dumping duty on some Chinese steel for five years.

More about the news:

- The move comes amid a **62% rise in steel imports from China to India** between April and July 2023, compared to the same timeframe last year. China had to beat South Korea to become the biggest steel exporter to India.
- The evidence of export price indicates that the Chinese exporters are exporting the goods to third countries at significantly dumped and injurious prices.
- Such duty on steel wheels was imposed in **2018** and now the ministry has recommended a continued imposition for **another five years**.
- As per government, there is **healthy competition in the Indian market** and continuation of the duties would **not deprive the domestic industry** of any requirements.

China is the largest **producer of steel** in the world, accounting for almost half of the world's total output. Other major steel-producing countries include Japan, India, Russia, South Korea, and the United States.
Top net importers of finished steel equivalent are US, Russia, UK, Canada, France, etc.

What is an Anti-dumping duty?

An anti-dumping duty is a protectionist tariff that a domestic government imposes on foreign imports that it believes are **priced below fair market value**.

Other types of duty

- **Basic Customs Duty**: This duty is imposed on the value of goods at a specified rate as it is fixed on an ad-valorem basis. After being amended time and again, it is currently regulated by the **Customs Tariff Act, 1975**. The Central Government, however, holds the right to exempt specific goods from this tax.
- **Countervailing duty:** It is also known as duties, is a trade import duty imposed under World Trade Organization rules to neutralize the negative effects of subsidies
- **Protective Duty**: This duty is imposed in order to **shield the domestic industry** against the imports at rates that are recommended by the Tariff Commissioner.
- **Safeguard Duty:** As the name suggests, this duty serves as a means of safeguarding the **rise in exports**. Sometimes, if the government feels that a rise in exports can damage the existing domestic industry, it may levy this duty.

Merits of imposing Anti-dumping duties:

- **To maintain a level playing field**: These measures can help in ensuring a level playing field for **domestic producers**, ensuring that they can **compete fairly with foreign competitors.**
- **To protect the domestic industries**: Imposing anti-dumping duty protects the country's domestic businesses **against the unfair competition** created by foreign exporters by reducing the export prices against their fair price.
- **Revenue for the government**: Imposing these duties can generate revenue for the government through the **collection of duties on imported products**. This revenue can be used for various public purposes.
- **Broader trade policy**: Imposing anti-dumping duty can be part of a broader strategic trade policy aimed at **safeguarding essential industries and reducing reliance** on imports for critical materials.

Demerits of imposing Anti-Dumping duties:

- **Trade barrier:** There is a **risk** of using anti-dumping duty as a trade barrier rather than a legitimate tool for addressing unfair trade practices.
- **Inflated price**: They can lead to higher prices of particular goods in the domestic market.
- **Retaliatory measures**: It can lead to retaliatory measures by **other countries**, affecting the export opportunities for domestic industries in global markets.
- **Disrupt global supply chains**: The anti-dumping duties can disrupt global supply chains, potentially leading to **inefficiencies in production and distribution**.

WTO and anti-dumping provisions

- **Deals with the rules of trade**: The World Trade Organization (WTO) is an international organization that deals with the rules of trade between nations. The WTO also operates a set of international trade rules, including the **international regulation of anti-dumping measures.** The WTO does not intervene in the activities of companies engaged in dumping. Instead, it focuses on **how governments can—or cannot—react to the practice of dumping.**
- **Permission to act against dumping**: The WTO agreement permits governments to act against dumping "**if it causes or threatens material injury to an established industry** in the territory of a contracting party or materially retards the establishment of a domestic industry."
- This intervention must be justified in order to uphold the WTO's **commitment to free-market principles.** Anti-dumping duties have the **potential to distort the market**. In a free market, governments cannot normally determine what constitutes a fair market price for any good or service.

Conclusion:

Imposing anti-dumping duties on Chinese steel imports in India involves a careful balancing act between protecting domestic industries and avoiding potential negative consequences such as higher prices and trade tensions. Hence, the decisions should be based on a thorough analysis of the specific circumstances and after analyzing the impact on various stakeholders in the economy.

Rise in Global debt: Institute of International Finance (IIF) report

News Excerpt:

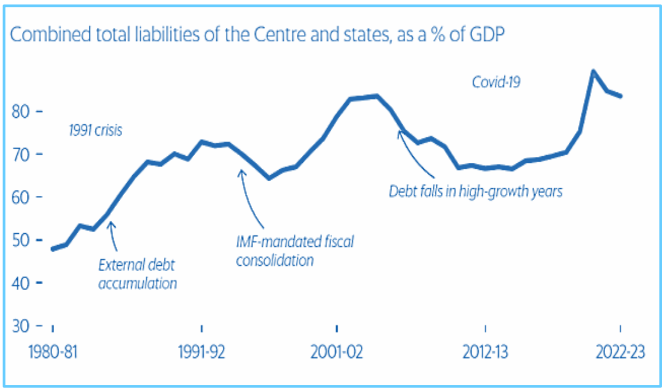
As per the Institute of International Finance (IIF) report, Global debt rose to an all-time high of $307 trillion by the end of June 2023. Noticeably, Global debt has risen by about $100 trillion over the last decade only.

What is global debt?

Global debt refers to the **borrowings of governments, private businesses, and individuals.** Governments borrow to meet various expenditures that they are unable to meet through tax and other revenues. Governments may also borrow to pay interest on the money that they have already borrowed to fund past expenditures. The private sector borrows predominantly to make investments.

State of Global Debt:

- As per IMF, Global public debt tripled since the mid-1970s to reach 92 percent of GDP (or just above $91 trillion) by end-2022.
- More than 80% of the rise in debt in the first half of 2023 has come from advanced economies such as U.K. & U.S.A.
- Among emerging markets, the biggest rise came from China, India, and Brazil.
- The US ($ 30.1 trillion) owes as much money as the next four countries with the highest debt including China ($14 trillion), Japan ($10.2 trillion), France ($3.1 trillion), and Italy ($2.9 trillion).



Is Indian Debt sustainable?

- **Middle of the rank**: India falls in the middle of the ranks of indebted countries than the debt-heavy US or Japan, but worse than comparable emerging economies.
    - In 2020, total liabilities of the Centre and states hit an all-time high of 89.3% of GDP, mainly due to central spending on **COVID-19 relief**. It **declined in the following years** but remains around 84% of GDP, which is fairly high for an emerging economy.
- **Long tenure and fixed rate coupons**: India's public debt is dominated by loans with long tenure and fixed rate coupons. Longer tenures are known to reduce rollover risk.
- **Low share of floating rate debt**: The low share of floating rate debt (5.6% of central government debt (March 2021) reduces interest rate risk.
    - US dollar-denominated debt remained the largest component of India's external debt, with a share of 54.4 percent at end-June 2023, followed by debt denominated in the Indian rupee (30.4 percent), and the rest with SDR (5.9 percent), Yen (5.7 percent), and the Euro (3.0 percent).

> **Rollover risk is a risk associated with the refinancing of debt.** It is commonly faced by countries and companies when a loan or other debt obligation (like a bond) is about to mature and needs to be converted (rolled over) into new debt.

- **GDP growth higher than borrowing**: India's GDP growth has usually been higher than the government borrowing rate.

Thus, India's debt is considered to be sustainable, meaning that it is expected to **meet its current and future debt obligations** without default.

Causes for rising global debt:

- **Rising interest**: During **the first half of 2023**, total global debt **rose by $10 trillion**. This has happened amid rising interest rates, which were expected to adversely affect demand for loans.
- **Rising money supply**: A **rise in debt levels** over time is expected since the total money supply usually rises each year in countries across the globe.
- **Economic recession:** As per the World Bank, the world may be edging towards a global recession in 2023. The spending of the government typically increases to stimulate economic growth and provide relief, **leading to higher debt levels**.
- **Budget deficits: A budget deficit takes place when the government spends more money than it collects in revenue.** To cover these deficits, they issue bonds and accumulate debt.
- **Currency Devaluation**: Countries experiencing currency devaluation might see their debt levels rise when their debt is denominated in foreign currencies.

Implications of rising global debt:

- **Unsustainability:** Rising global debt levels usually lead to concerns about the sustainability of such debt.
  - Excessive public debt leads to erosion of economic power, with dampening effects kicking in around debt reaching 78 percent of GDP.
- **Default risk:** Rising interest rates can increase pressure on governments and force them to either default outright or **inflate away their debt**.
- **Austerity Measures**: The governments may implement austerity measures to control debt in the form of cutting public services and raising taxes which can be economically challenging.
- **Impact on future generations:** High levels of government debt may be passed onto future generations, limiting their economic opportunities and freedom to make fiscal decisions.
- **Crowd out the private sector**: High levels of government debt can crowd out private sector investment by absorbing available funds in the financial markets, affecting growth in the economy.
- **Downgrading by credit rating agencies:** Credit rating agencies may downgrade the creditworthiness of a country if its debt levels become unsustainable, leading to higher interest rates and high borrowing costs.

Inflating away public debt:

Inflating away public debt refers to the idea that a **government can reduce the real value of its debt by creating inflation**. The theory is that as prices rise, the value of the debt, which is fixed in nominal terms, will decrease in real terms.

How to properly and sustainably manage Debt?

- **Debt restructuring**: When there is a risk of default, it is better to consider debt restructuring or rescheduling to provide relief and ensure sustainability.
- **Manage exchange rates**: To ensure competitiveness in international trade and to minimize the risk of currency devaluation, it is important to manage the exchange rates carefully.
- **Assistance from Global Agencies:** It is vital to encourage international financial institutions such as the IMF and World Bank to provide financial assistance to heavily indebted and vulnerable economies.
- **Other suggestions**: Boost alternatives to borrowing, manage borrowing and lending better, increase accountability to improve the behaviour of borrowers & lenders, and introduce better ways of managing shocks and crises.

Way forward:

Not all debt is inherently bad, as it can be used to fund investments in infrastructure, education, and technology which ultimately leads to economic growth. However, unsustainable levels of debt can have detrimental effects on economies and societies, making it crucial for governments to strike a balance between borrowing for growth and maintaining fiscal responsibility.

Rise in US bond yields impacts on India

News Excerpt:

The ongoing increase in bond yields in the US may result in a further decline in the Indian equity market.

- The yield on the 10-year US Treasury bond has surpassed **4.8 percent**, the highest level in over **16 years**, and nearly **45 per cent higher** than the **25-year average yield of 3.3 percent.**
- Historically, there is a **negative correlation between the yield or interest rate on risk-free government bonds and the price of risky assets such as equities**.

Bond yields as an economic indicator:

- **High yield as risk indicator**: A very high yield indicates greater risk. If the yield offered by a bond is much higher than what it was when issued, there is a chance that the **company or government that issued it is financially stressed** and may not be able to repay the capital.
- **Investor confidence**: Government bonds are relatively more stable but **low demand at auctions indicates low investor confidence** in the country's economy.
- **Factors impacting yield**: A whole host of factors including recessions, inflation, and bank rate set by central banks can have an impact on bond yields.
- In developing **countries like India** where the **government is among the biggest investors** in the economy, bond yields can be a useful parameter in

assessing economic health, unlike in countries where private enterprise drives the engine of growth.

Reasons for recent bond yield rise in the US:

- **Increased U.S. Treasury Debt Issuance:** The U.S. Treasury surprised the bond market when it announced a significantly larger need to raise money than expected.
- **Inflation Expectations**: Current USA is having high inflationary trends. Bond yields tend to **rise in an inflationary environment**.
- **Strong economic data** in the US and **hawkish comments** from the US Federal Reserve officials have raised bets that the interest rates will remain higher for longer, leading to a spike in bond yields.

Impact of rising US bond yields on India:

- The movement in the yield on US Treasury bonds affects the Indian equity market **through foreign portfolio investment (FPI) and Foreign Institutional Investors (FII) in equities**.
- **When bond yields decline** in the US, investment in Indian equities becomes **more attractive**. FPIs become net buyers, leading to a rise in stock prices and an expansion in Indian markets.

Way forward:

There is a need for diversion of the export market along with stabilisation of the exchange rate and steps must be taken to attract more FDI to build RBI Currency Reserve which can be used wisely in such situations.

WTO Dispute Settlement

News Excerpt:

India and the US have mutually resolved all six trade disputes pending at the WTO. According to some analysts, an incident like this reduces the utility of the WTO.

More details on the news:

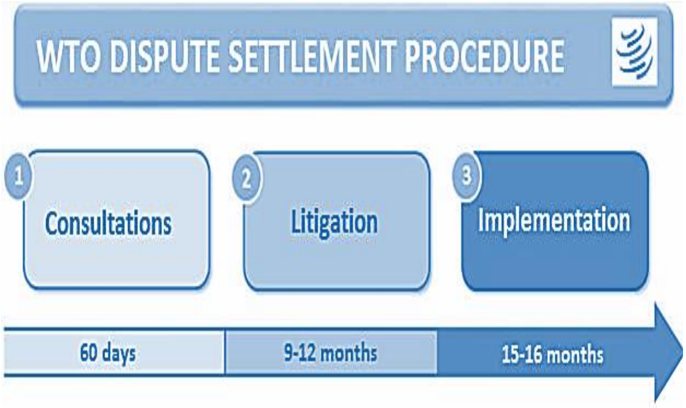
- With this, the pending trade disputes have been resolved between the two nations. India also agreed to **remove retaliatory Customs duties** on 28 US products, such as almonds, walnuts, and apples.
- These duties, **imposed in 2019**, had come in response to the USA's move the previous year to impose a 25% import duty on steel products and 10% on aluminum products on the grounds of national security.

Significance of this dispute resolution:

- The decision to end the trade disputes is expected to have a positive impact on **India's exports to the US**.
- It showcases India's **new approach to trade issues which is solving the issues mutually**.

Dispute settlement mechanism of WTO:

- According to WTO rules, a member country can file a case in the **Geneva-based multilateral body** if they feel that a particular **trade measure is against the norms.**



- **Bilateral consultation** is the first step to resolving a dispute. If both sides are not able to resolve the matter through consultation, either of them can approach the establishment of a **dispute settlement panel.**
- The panel's ruling or report can be challenged by WTO's appellate body.
- Further, India has highlighted its interest in the restoration of its status under the US **Generalized System of Preferences (GSP)** programme.

> **Generalized System of Preferences (GSP):** The GSP and the "most favoured nation" (MFN) status are two distinct tariff systems within the WTO. While MFN ensures equal treatment for all WTO members, **GSP allows for varying tariffs** based on factors like a **country's development status**, offering tariff reductions, particularly for **least developed nations.**

Relevance of WTO:

- **Crucial platform for developing nations:** It remains a crucial platform for small and developing nations to engage in international trade negotiations.
  - **For example**- WTO offers special and differential treatment for developing countries.
- **Addressing global challenges**: The WTO can play a role in addressing global challenges, such as the COVID-19 pandemic and vaccine distribution.
  - **For example**- The **WTO-IMF Vaccine Trade Tracker** provided data on the trade and supply of COVID-19 vaccines.
- **Trade liberalization:** The WTO has not only enhanced the **value and quantity of trade** but has also helped in **eradicating trade and non-trade barriers**.
- **Multilateralism:** The WTO upholds the importance of multilateralism in the world where unilateral and bilateral trade agreements are becoming more common.
- **Discourage protectionist measures:** WTO discourages protectionist measures and maintaining open markets.

Argument on the reduced utility of WTO in recent times:

- **Increasing bilaterally resolved cases and trade agreements:** The cases are increasingly getting resolved bilaterally, for example, recent resolved trade disputes between India & US and many agreements such as RCEP are taking place without relying on WTO.
- The **appellate body is not functioning** because of differences among member countries to appoint its members. Several disputes are already pending with this body. The US has been blocking the appointment of the members.
- **Ineffective dispute settlement mechanism**: The organization is unable to effectively resolve trade disputes, undermining its credibility.
- **Changing nature of trade:** The rise of **digital trade, growth of e-commerce, and IPR issues** have posed challenges that the WTO was not originally designed to address adequately.
- **Non-trade concerns:** Many contemporary challenges, such as **climate change and labour rights**, are closely linked to trade which WTO struggles to incorporate into its framework.
- **Geopolitical tensions**: Geopolitical tensions, particularly between the **United States and China**, have strained the WTO's effectiveness in making meaningful progress on key issues.
- **Unresolved Farming subsidies**: Subsidies provided by rich countries **distort global markets** and depress prices, undermining the competitiveness and incomes of poor farmers in developing countries.
- **Trade barriers to developing nations**: The increase in **non-tariff barriers** such as **anti-dumping** measures allowed against developing countries.

Way forward:

The WTO must adapt to address the changing power dynamics and challenges of global trade to maintain its relevance. With changing global trade patterns there is an urgent need to sort out legacy issues and the inclusion of global south interest would make WTO far more effective than it is today. Adapting to new trade dynamics, resolving disputes effectively and addressing emerging issues will be crucial for the organization to continue promoting a rules-based and fair global trading system.

WTO 13th Ministerial Conference

News Excerpt:

The World Trade Organization's 13th Ministerial Conference (MC13) took place in **Abu Dhabi, United Arab Emirates.** Ministers from across the world attended to review the functioning of the multilateral trading system and to take action on the future work of the WTO.

What are the Key Outcomes of WTO's 13th Ministerial Conference?

- **Accessions:** On the first day of MC13, ministers endorsed the accession to the WTO of two least-developed countries—**Comoros** and **Timor-Leste**. This brings the organization's membership to 166, representing 98 percent of world trade.
- **WTO reform:** At MC13, ministers endorsed progress on the WTO reform process, which covers the organization's deliberative, negotiating, and dispute settlement functions.
  - **Dispute settlement reform:** At MC13, ministers reviewed the valuable contributions made towards fulfilling the reform commitment. This includes a 36-page draft setting out reforms to the **WTO's dispute settlement system.**
  - **Reform of the deliberative and negotiating functions:** At MC13, ministers welcomed the work already undertaken to
    - Improve the functioning of WTO Councils, Committees, and Negotiating Groups.
    - Enhance the organization's efficiency and effectiveness.
    - Facilitate Members' participation in WTO work.
- **E-commerce:** At MC13, ministers decided to renew the e-commerce moratorium until MC14 or 31 March 2026, whichever is earlier.
- **TRIPS non-violation and situation complaints:** The ministers also decided to **extend a moratorium** on so-called "non-violation" and "situation" complaints under the **TRIPS Agreement.**
- **Special and differential treatment (S&DT):** Ministers adopted a decision to improve the use of **S&DT** provisions, particularly those in the Agreement on Technical Barriers to Trade and the Agreement on Sanitary and Phytosanitary Measures.
- **Plurilateral agreements and initiatives:** At MC13, Members failed to reach consensus on agriculture and food security and further disciplines fisheries subsidies. **Plurilateral initiatives (covering less than the full Membership)** are, therefore, becoming more prominent.
- **COVID-19-related TRIPS waiver:** At MC12, ministers broadened compulsory licensing for COVID-19 vaccines and mandated negotiations for expanding coverage to diagnostics and therapeutics. At MC13, due to a lack of consensus, these rules won't apply to diagnostics and therapeutics. Ministers urged ongoing work on pandemic lessons and future solutions.
- **Fisheries subsidies:** At MC13, ministers welcomed the progress over the past 20 months towards the **Agreement on Fisheries Subsidies (AFS)'s** entry into force. As of 1 March 2024, 71 Members have ratified the agreement. A further 39 ratifications are needed to reach

the threshold of 110 for the agreement's entry into force.

- **Agriculture and food security:** Although updating WTO disciplines on agriculture has been on the agenda of Members since 2000, little progress has been made. Prior to MC13, there appeared to be a more positive dynamic.

Support for Accessions
- India supported the accession of Comoros and Timor Leste.

Avoid Fragmentation
- India stressed the need to avoid fragmentation of the multilateral trading system.

Stay Focused
- India emphasized on the importance of remaining focused on trade-related issues rather than mixing non-trade topics like gender and MSMEs with the WTO agenda.

Policy Space for Industrialization
- India advocated for appropriate policy space for developing countries to address their concerns, particularly regarding industrialization.

Commitment to Multilateralism
- India reaffirmed its commitment to multilateralism and the rules-based global trading system, underscoring the importance of adhering to WTO rules

Figure: India's Stance

What are the issues associated with the 13th Ministerial Conference of WTO?

- **Fisheries Subsidies Agreement:** It has not yet come into force due to insufficient ratifications.
  - Additionally, negotiations on **Part II (the remaining important provisions governing supportive subsidies, such as for fuel)**, particularly concerning supportive subsidies like those for fuel, faced challenges with major members seeking exemptions.
  - Illegal, unregulated, and unreported fishing continues to deplete ocean fish stocks.
- **Agriculture Negotiations:** Despite a 30-year-old pledge to proceed with negotiations, there is still no agreement. Climate change and extreme weather events exacerbate food insecurity, with the lack of WTO rules governing food sharing between countries worsening the situation.
- **Dispute Settlement System (DSS):** Agreement on a single, binding DSS remains elusive. While some clean-up amendments are moving toward consensus, core issues such as binding outcomes, national security exceptions, and the existence of an appellate level remain unresolved.
- **Future Agreements:** The Agreement on **Investment Facilitation for Development** has been concluded by interested parties. It aims to streamline procedures without market access obligations.
  - However, challenges arise as some members, such as **India and South Africa,** question the negotiation's approval process and its recognition as a WTO agreement. The issue of non-participating vetoes obstructing progress needs to be addressed for effective rulemaking within the WTO.
- **Concerning free and fair trade:** Despite a more contentious atmosphere around the trade laws the WTO aims to uphold, there was growing optimism that the 13th Ministerial Conference would fulfill its mandate.
  - Nevertheless, the World Trade Organization still has difficulty promoting fair and unrestricted trade.
- **Inward-looking tendencies**: In addition, a growing trend of nationalism has sparked isolationist and **tariff-heavy trade policie**s, which run counter to the **WTO's main objective of open trade for the benefit of all.**
  - Though not much has been accomplished, the Abu Dhabi proclamation does mention some of the difficulties, such as the requirement to guarantee open, inclusive, and robust supply chains.

Way Forward:

- **Reformative Approach:**
  - Establish a comprehensive, long-term strategy focusing on reform to uphold the efficacy of **global trade governance.**
  - Emphasize adherence to a rule-based order among WTO members to foster stability and predictability in international trade relations.
- **Regular Meetings:**
  - Facilitate frequent gatherings between WTO members and the Appellate Body to foster dialogue and maintain transparency.
  - Ensure that regular meetings enable efficient communication channels, allowing for the swift resolution of disputes and grievances.
- **Resolution of Disputes:**
  - Advocate for the restoration of the **WTO's dispute settlement mechanism** to its previous operational effectiveness.
  - Prioritize the needs of developing nations within the dispute resolution process to address asymmetries in legal resources and expertise.
- **Consensus-based Decision-making:**

  - Promote a **consensus-driven approach to decision-making within the WTO** to enhance legitimacy and inclusivity.
  - Guard against unilateral actions that may undermine cooperation and compromise essential for effective global trade governance.
- **Addressing Developing Countries' Needs**:
  - Tailor WTO rules and reforms to accommodate the unique challenges and developmental priorities of developing and least-developed countries.
  - Ensure that trade policies and agreements incorporate provisions that support capacity-building and economic growth in these nations.
- **Adapting to a Changing World:**
  - Continuously monitor and adapt to **shifts in the global economic landscape**, including advancements in technology and changes in trade patterns.
  - Integrate considerations for environmental sustainability into trade policies to address emerging challenges and promote responsible global commerce.

Dollarization: The concept

News Excerpt:

Argentina's president-elect had pledged to dollarise his country during the campaign. This has drawn attention to the pros and cons of dollarisation.

What is Dollarisation?

Dollarisation refers to using the U.S. dollar **in addition to or in place of the country's indigenous currency.** It represents a case of **currency substitution.**

- When a country's currency loses its utility as a medium of exchange owing to **hyperinflation or instability** and is replaced by the dollar, the country is said to have been dollarized.
- Dollarisation is common in developing nations with **weak central monetary authority.** It can be done either by an official decree or through acceptance by the market participants.

Why do countries shift to Dollarization?

- The primary reason for dollarisation is **better currency value stability over a country's indigenous currency.**
  - For example, the inhabitants of a country in an economy experiencing rampant inflation may prefer to conduct day-to-day transactions in the United States dollar because inflation will lower the purchasing value of their currency.
- By **modifying its money supply**, the government gives up some of its potential to affect its economy through monetary policy. The dollarising country outsources its monetary policy to the United States Federal Reserve.

Pros and Cons of Dollarisation:

BENEFITS	CHALLENGES
Lower Administrative Cost	Loss of Monetary Autonomy
Lower Interests Costs, Less currency volatility, No currency conversion costs	Loss of vital national symbol
Base for a sounder financial sector	Greater vulnerability to foreign influence

For **Argentina**, this brings all the standard economic benefits of financial and monetary integration: reduced transaction costs and enhanced usefulness of money for all its basic functions (medium of exchange, unit of account, store of value).

For the **United States,**

Advantages include gains of seigniorage, prestige, and political authority.

Disadvantages include possible constraints on US monetary policy and pressures to accommodate the special needs of dollarization countries.

Efficiency gains could be considerable and will be shared commensurately by both sides, the United States as well as the country that dollarizes.

Is dollarisation a solution to an economy?

- **Dollarisation** can help **control hyperinflation** by breaking the vicious cycle between **rising prices and rising money supply.**
- If the **domestic currency is replaced by dollars,** the money supply can no longer be controlled by vested political interests that can **raise spending for political purposes.**
- **Prices would be forced to moderate** because customers would no longer be able to access currency, decreasing consumption demand conveniently.
- Dollarisation can also be **beneficial to growth**. Because a small economy can only access dollars through international trade and capital inflows, it would incentivize the economy to focus on export achievements while easing conditions for foreign capital, which would be more eager to participate in a stable currency economy.
- The **dollar's stable value** would ensure that foreign and domestic economic agents could make long-term plans for economic activity, which would otherwise be impossible with a currency that rapidly lost value.

Way Forward:

Dollarization may have broken the back of inflation, but active fiscal policy played an important role in ensuring sustainable growth. Dollarization is not a silver bullet; if used well with nimble domestic policy, it can offer a route to success.

OPEC+ ambitions for the Indian oil market

News Excerpt:

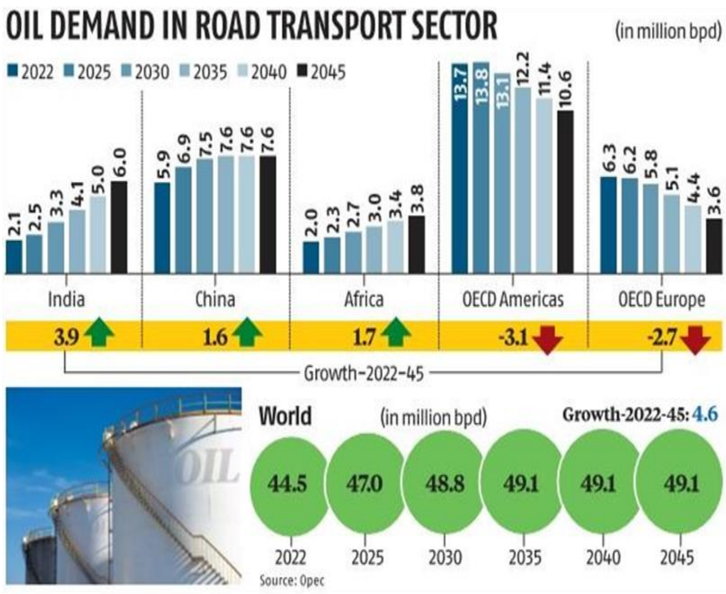
India struggles to balance oil dependence, clean energy goals, and economic growth amid global pressures.

About the news:

- India **faces a challenge** in balancing its growing need for oil, which has increased to over **85%** dependence on imports, with its goals of **promoting clean energy** and addressing pollution concerns.
- The Organization for Petroleum Exporting Countries (OPEC), Russia, and the US aim to make India a major destination for oil and gas, capitalizing on its increasing demand.
- India's oil demand is expected to continue growing rapidly, and it may **surpass China** as the main source of growth in the global oil market by **2027.**
- Despite India's push for clean energy and an "**Aatmanirbharta" (self-reliance)** approach to growth, it cannot maintain its 7% annual growth rate **without foreign petroleum.**
- **The International Energy Agency (IEA)** predicts that India's oil use will reach **8.4 million barrels per day by 2040,** with demand expected to continue growing for at least the next two decades.
- India's dependence on diesel, comprising nearly **40% of its oil mix**, is challenging to eliminate due to limited alternatives for heavy trucks.

Steps taken to promote clean energy:

- India launched the **National Hydrogen Mission** in 2013 to make India the world's largest hydrogen hub and holds the 4th largest **wind power** capacity globally.
- Through decades of scientific research, India has indigenously developed and deployed **nuclear reactors.**
- India's successful implementation of solar applications has led to spearheading the **International Solar Alliance (ISA).** Also, India has had over 800 **biomass power** and cogeneration projects since the mid-nineties.
- India's massive **UJALA LED bulb** campaign is reducing emissions by 40 million tonnes annually.
- At **COP-21 in Paris in 2015**, India committed to a 40% share of power generation from non-fossil fuel sources. We have achieved this target a decade ahead of the 2030 timeline.



Why India struggles to balance its energy goals and economic growth?

Heavily dependent on oil imports

- This dependence makes the country vulnerable to fluctuations in global oil prices, affecting its trade balance and overall economic stability.

Rising energy demand

- India is experiencing rapid economic growth, leading to a surge in energy demand.

Challenges of policy implementation

- Administrative and regulatory hurdles, as well as issues related to land acquisition for renewable projects, can slow down the transition.

Socio economic disparity

- Balancing the need for economic growth with social equity and ensuring that clean energy benefits are distributed fairly across different segments of the population is a complex task.

Global market dynamics

- These external factors including geopolitical events and changes can impact India's ability to pursue its energy goals independently.

- The country's vision is to achieve **Net Zero Emissions by 2070**, in addition to attaining the short-term targets, which include:
    - Increasing renewables capacity to **500 GW by 2030,**
    - Meeting **50% of energy** requirements from renewables
    - Reducing cumulative emissions by one billion tonnes by 2030
    - Reducing emissions intensity of India's **gross domestic product (GDP) by 45**% by 2030.

Way Forward:

- **Invest in training**: Invest in training programs to develop a skilled workforce for the clean energy and technology sectors.
- **Collaborate with international organizations:** To share knowledge, technology, and best practices in achieving a balanced energy strategy.
- **Electric Vehicles (EVs):** Incentivize the production and purchase of electric vehicles (EVs) through subsidies, tax breaks, and other financial incentives.
- **Investment in Research and Development**: Allocate resources to research and development in clean energy technologies.
- **Gradual Transition:** Develop a phased approach with clear milestones for reducing oil dependence and increasing the share of clean energy over time.
- **Favourable environment**: Create a favourable environment for private investments in the clean energy sector through incentives and subsidies.

Reforming Sovereign Credit Rating Process

News Excerpt:

The Chief Economic Adviser's (CEA) office has published a report titled "**Re-examining Narratives - a Collection of Essays"**, which has raised questions about the methodology of top rating agencies while rating a sovereign.

About the news:

- Comments of the Chief Economic Adviser coincide with India **seeking to upgrade** its sovereign credit ratings as India has seen its economic metrics improve considerably since the pandemic.
- **S&P and Fitch rate India at BBB**, and **Moody's rates it at Baa3**, the lowest investment grade.
- The CEA says that to get a better rating, developing countries have to show progress in areas that might not be important, which is not fair.

What is Sovereign credit rating?

- It **measures a government's ability to repay its debt**, with a low rating indicating high credit risk.
- Typically, rating agencies use various parameters to rate a sovereign. These include **growth rate, inflation, government debt, short-term external debt as a percentage of GDP, and political stability.**
- Sovereign credit ratings, primarily by Fitch, Moody's, and Standard & Poor's (S&P), are important metrics for countries looking to raise financial resources through domestic and international financial markets.

Credit Rating Agencies in India

- In India, the **Securities and Exchange Board of India (SEBI)** primarily regulates credit rating agencies and their functioning.
- Credit rating agencies in India are **CRISIL, CARE, ICRA, SMREA, Brickwork Rating, India Rating and Research Pvt. Ltd, and Infomerics Valuation and Rating Pvt. Ltd.**

Issues with the Present Rating System:

- **Opaqueness in Methodologies:** The credit rating process suffers from a significant degree of opaqueness in its methodology. This lack of transparency makes it challenging to assess and quantify the impact of different factors on credit ratings.
- **Effect of Qualitative Factors:** The substantial presence of qualitative factors in credit rating methodologies leads to **bandwagon effects and cognitive biases.**

> - The **bandwagon effect** is a psychological phenomenon in which people do something primarily because other people are doing it, regardless of their own beliefs, which they may ignore or override.
> - **Cognitive biases** are errors in thinking that affect people's decision-making in virtually every situation.

    - Studies reveal concerns about the credibility of credit ratings due to the influence of **subjective elements on the assessment process**. For example**,** between 2020 and 2022, over 56% of the African countries rated by at least one of the big three agencies were downgraded, compared with 9% of the European nations.
- **The dominance of Institutional Quality as a Determinant:** Institutional quality, often measured by the World Bank's Worldwide Governance Indicators, emerges as a crucial determinant. It creates a problem as these metrics are non-transparent, perception-based, and derived from a small group of experts, potentially leading to discriminatory outcomes.
- **Arbitrary Indicators for Rating Upgrades:** Developing economies may need to demonstrate progress along arbitrary indicators to earn a credit rating upgrade. It imposes challenges, as progress may be measured against non-transparent and perception-based metrics.
- **Non-Trivial Impact of Qualitative Component:** The qualitative component determines over half of the

credit ratings. This reliance on qualitative factors complicates the process, making it less objective and potentially hindering accurate assessments.

- **Increased cost of borrowing**: Negative warning announcements by credit rating agencies are linked to increased borrowing costs for developing countries.

The Economic Survey 2020-21 on Sovereign Credit Ratings

- **Call for Transparency and Objectivity**: The Economic Survey has called for sovereign credit ratings methodology to be more transparent, less subjective and better attuned to reflect an economy's fundamentals.
- **Low Rating for Large Economies**: The Survey noted that never in the history of sovereign credit ratings has one of the largest economies in the world been rated at the lowest rung of the investment grade (BBB-/Baa3) except in the case of China and India.
- **Fundamentals Not Reflected**: Further, it points out that India's sovereign credit ratings do not reflect its fundamentals. Within its sovereign credit ratings cohort, India is a clear outlier on several parameters, i.e. it is rated significantly lower than mandated by the effect on the sovereign rating of the parameter.
    - These include GDP growth rate, inflation, general government debt (as a percent of GDP), current account balance (as a percent of GDP), cyclically adjusted primary balance (as a percent of potential GDP), short-term external debt (as a percent of reserves), reserve adequacy ratio political stability, the rule of law, control of corruption, investor protection, ease of doing business, and sovereign default history.
    - This outlier status remains true for the current period and during the last two decades.

Way Forward:

Thus, the rating mechanism followed by credit rating agencies for developing economies needs serious reform, focusing on well-defined, measurable principles rather than subjective judgments on their ideas of governance.

India should reverse its tariff barrier uptrend

News Excerpt:

India's trade policy reorientation in late 2019, away from the Regional Comprehensive Economic Partnership (RCEP) and towards the Western Free Trade Agreements (FTAs), faces criticism due to growing trade deficits.

Free Trade Agreements (FTA):

FTAs are treaties between two or more countries designed to reduce or eliminate certain barriers to trade and investment and to facilitate stronger trade and commercial ties between participating countries.

Regional Comprehensive Economic Partnership (RCEP):

- Signed in 2020, the RCEP is a free trade agreement (FTA) between the then 10 member states of the Association of Southeast Asian Nations (ASEAN) and its five FTA partners- Australia, China, Japan, New Zealand and South Korea.
- India had also planned to join the deal but pulled out in 2019.

Global challenges to free trade:

- There are currently issues with free trade on a worldwide scale. A number of nations, mostly in the **West, are raising trade barriers**, indicating a departure from the **ideals of free trade**.
- After three decades, globalization is running low due to geopolitical tensions, and the **World Trade Organisation (WTO) is perceived as largely ineffective.**
- Contentious negotiations have produced a patchwork of bilateral agreements rather than a coherent global market structure.

Concerns about India's trade policy:

- By walking away from the **RCEP** and focusing **on FTAs**

Access to Private Capital

- Reformed credit rating processes can lead to credit rating upgrades for many sovereigns. This, in turn, enables these nations to access private capital, aligning with the G-20's emphasis on private capital's role in addressing global challenges like climate change.

Enhanced Transparency

- Reforms aim to enhance transparency in the credit rating process. Increased transparency would compel rating agencies to rely more on hard data, reducing the impact of subjective judgments and promoting objectivity.

Global Trade Stability

- A reformed sovereign credit rating process can contribute to global trade stability. By providing accurate and objective assessments, countries can build confidence among investors and trading partners, fostering economic stability amid global economic uncertainties.

Fulfilling Export Targets

- A transparent and fair credit rating system can contribute to achieving export targets. This is particularly relevant for developing economies, such as India, as access to private capital becomes crucial for economic growth and achieving ambitious export goals.

Avoiding Untenable Judgments

- Establishing symmetry of obligations requires rating agencies to avoid employing untenable judgments. This ensures a fair and unbiased assessment, aligning with the sovereign's obligation to be transparent.

with Western and West Asian economies, India aimed to boost exports.

- India's rejection of RCEP can be explained partly by **Eastern FTAs having let us down.** They led to swelling imports from FTA partners without an equal upswell in Indian exports to their markets. Entering into RCEP could have risked even **larger imbalances for us.**
- Critics argue that the asymmetry in tariff reductions, where **India lowered barriers more than its FTA partners**, created a mismatch, resulting in a growing influx of goods and little benefit for Indian exporters.
- The move led to substantial **merchandise deficits**, especially with **ASEAN, South Korea, and Japan**. The **Global Trade Research Initiative report** reveals significant trade imbalances, with Indian exports unable to match the pace of imports.
    - From the pre-FTA period of 2007-09 to the recent two years of 2020-22 show that India's merchandise deficit grew by over **300% with ASEAN**, **160% with South Korea** and **138% with Japan** during that span of time, while the overall external gap went up only 81.2%.
- This has prompted concerns about the **effectiveness and fairness of India's current trade strategy.**

Other issues:

- Inadequate industry and stakeholder consultation during negotiations led to **a narrow understanding of potential impacts.**
- **Complex certification requirements** and **rules of origin** hindered streamlined processes for exporters, increasing compliance costs on the Indian side.
- The government's **lack of post-implementation efforts** to popularize FTAs among industry stakeholders led to underutilization.

Why should India consider a strategic reversal of its tariff barrier policy?

- **Enhance competitiveness:** India should consider strategically reversing **its tariff barrier uptrend**. The emphasis should be on **reducing import tariffs** to enhance competitiveness and attract global investments, especially in the context of **evolving trade patterns.**
- **Align with India's broader goal**: Lowering barriers aligns with the government's broader goals, including **reducing friction**, **compressing logistical costs**, and boosting exports through other **enabling measures.**
- **Creating a level playing field**: The focus should be on creating a more level playing field, as indicated by the criticism of asymmetrical **tariff reductions in FTAs.**
- **Low-tariff economies & Global Value Chains**: This move supports the **global trend of low-tariff economies** and facilitates the attraction of **Global Value Chains (GVCs)** by minimizing input costs.

Way Forward:

Global trade patterns are in flux, but India should lower **import duties to sharpen domestic competitiveness**. By reconsidering its tariff policy, India can position itself more favourably in the dynamic and competitive global trade landscape, **fostering sustainable economic growth.** Strategic participation in multilateral forums and industry-driven negotiations should be focused upon to optimize all future FTAs.

Mauritius Approves DTAA Amendment

News Excerpt:

The Mauritius Government has decided to amend the Double Taxation Avoidance Agreement (DTAA) with India to go with OECD's proposal on Base Erosion and Profit Shifting (BEPS).

Double Taxation Avoidance Agreement (DTAA)

- The DTAA is a tax treaty signed between India and another country (or any two/multiple countries) so that taxpayers can **avoid paying double taxes** on their income earned from the source country as well as the residence country.
- The need for DTAA arises out of the **imbalance in tax collection** on individuals' global income.

About the news:

- This move by Mauritius is seen as a significant stride towards harmonizing with global tax norms. The amendment focuses on preventing **tax avoidance through exploitative tactics**.
- This modification would now elevate the India-Mauritius tax treaty to the **status of a covered tax agreement** under **BEPS MLI (Multilateral Instrument),** ushering in a new era of **anti-abuse** and limitation of benefit rules, principal-purpose test and inclusion of arbitration in the mutual agreement procedure.

Base Erosion and Profit Shifting Multilateral Instrument (BEPS MLI)

- Base erosion and profit shifting (BEPS) refers to **tax planning strategies used** by multinational enterprises that exploit gaps and mismatches in tax rules to avoid paying tax.
- **The BEPS MLI** is a convention created by the Organization for Economic Co-operation and Development (**OECD**) and endorsed by the G20 to prevent base erosion and profit-shifting (BEPS) practices.

BEPS Minimum Standards compliance

- The **BEPS MLI** allows governments to implement **agreed minimum standards** to counter treaty abuse and to improve dispute resolution mechanisms while providing flexibility to accommodate specific tax treaty policies.

Treaty shopping

- Treaty shopping typically involves the attempt by a person to **indirectly access the benefits of a tax treaty** between two jurisdictions without being a resident of one of those jurisdictions.
- There are a wide number of arrangements through which a person **who is not a resident of** a jurisdiction that is a party to a tax agreement may attempt to obtain benefits that a tax agreement grants to a resident of that jurisdiction.
- Taxpayers engaged in treaty shopping and other treaty **abuse strategies undermine tax sovereignty** by claiming treaty benefits in situations where these benefits were not intended to be granted.

Foreign investment in India from Mauritius before and after the DTAC amendment in 2016:

- **Initial Preference for Mauritius**: Mauritius was initially the preferred channel for foreign portfolio and foreign direct investors due to the tax advantage that accrued to them due to the DTAA between the two countries.
  - The agreement laid down that capital gains tax had to be paid in the country where the foreign investor was based.
  - Since the rate of capital gains tax in Mauritius was zero, investors from this country paid no capital gains tax.
- **DTAC Amendment in 2016**: The situation changed in 2016 when it was decided that in case shares purchased after April 1, 2017, capital gains arising from an investment in an Indian company will be taxed in India.
- **With the double tax avoidance treaty** with Singapore being linked to the agreement with Mauritius, investments from Singapore have also been brought into the Indian tax net.
- **Cumulative FDI worth $161 billion** came from Mauritius to India in the two decades from 2000 - 2022 (26 percent of total FDI inflows into India), thanks largely to the DTAA.
- **Since the signing of the DTAC** amendment in 2016, FDI inflows from Mauritius have dropped from $**15.72 bn in 2016-17 to $6.13** bn in 2022-23, with Mauritius becoming India's third largest source of FDI.

Way Forward:

Mauritius' decision to align with BEPS standards shows a commitment to global tax norms, fostering transparency and preventing tax avoidance. Multinational corporations with entity structures in India and Mauritius could now possibly see enforcement of more challenging treaty rules on account of the implementation of BEPS MLI.

New space FDI norms

News Excerpt:

The Department for Promotion of Industry and Internal Trade (DPIIT) has notified us of changes in the **foreign direct investment norms (FDI) in the space sector**.

Amendment in FDI Policy:

- Currently, FDI is permitted only in the establishment and operation of Satellites **through the Government approval route.**
- In line with the vision and strategy under the **Indian Space Policy 2023**, the Union Cabinet has **eased the FDI policy on the Space sector** by prescribing liberalized FDI thresholds for various sub-sectors/activities.
- The proposed reforms seek to **liberalize the FDI policy provisions** in the space sector by prescribing a **Liberalized Entry Route** and providing clarity for FDI in the following:
  - Satellites, Launch Vehicles, and associated systems or subsystems.
  - Creation of Spaceports for launching and receiving Spacecraft.
  - Manufacturing of space-related components and systems.
- With increased investment, internal stakeholders like IN-SPACe, ISRO, and NSIL would be able to achieve the sophistication of products, global scale of operations, and enhanced share of the global space economy.

Current status of the Indian Space industry:

- At present, the Indian space economy is valued at around $8.4 billion, with a 2% share in the global space economy.
- As per IN-SPACe's projection, India's space economy has the potential to reach $44 billion by 2033 with about 8% of the global share.
- At present, the share of the domestic market is $8.1 billion. The export market share is $0.3 billion. The aim is to increase the domestic share to $33 billion and the export share to $11 billion.
- Besides, an investment of $22 billion is envisioned for the next 10 years in the industry.

Benefits under the amended FDI Policy:

- Under the amended FDI policy, **100% FDI is allowed in the space sector.**
- The liberalized entry routes under the amended policy are aimed **at attracting potential investors** to invest in Indian companies in space.
- Now, the satellite sub-sector has been divided into three different activities with defined limits for foreign investment in each such sector:
  - **Upto 74% under Automatic route:** Satellites-Manufacturing & Operation, Satellite Data Products

and Ground Segment & User Segment. Beyond 74%, these activities are under the government route.
  - **Upto 49% under Automatic route:** Launch Vehicles and associated systems or subsystems, Creation of Spaceports for launching and receiving Spacecraft. Beyond 49%, these activities are under the government route.
  - **Upto 100% under Automatic route:** Manufacturing of components and systems/ sub-systems for satellites, ground segment and user segment.
- This increased private sector participation would help **generate employment, enable modern technology absorption, and make the sector self-reliant.**
- It is expected to **integrate Indian companies** into global value chains.
- With these amendments, companies will be able to set up their manufacturing facilities within the country, thus **encouraging 'Make In India (MII)' and 'Atmanirbhar Bharat' initiatives of the Government.**

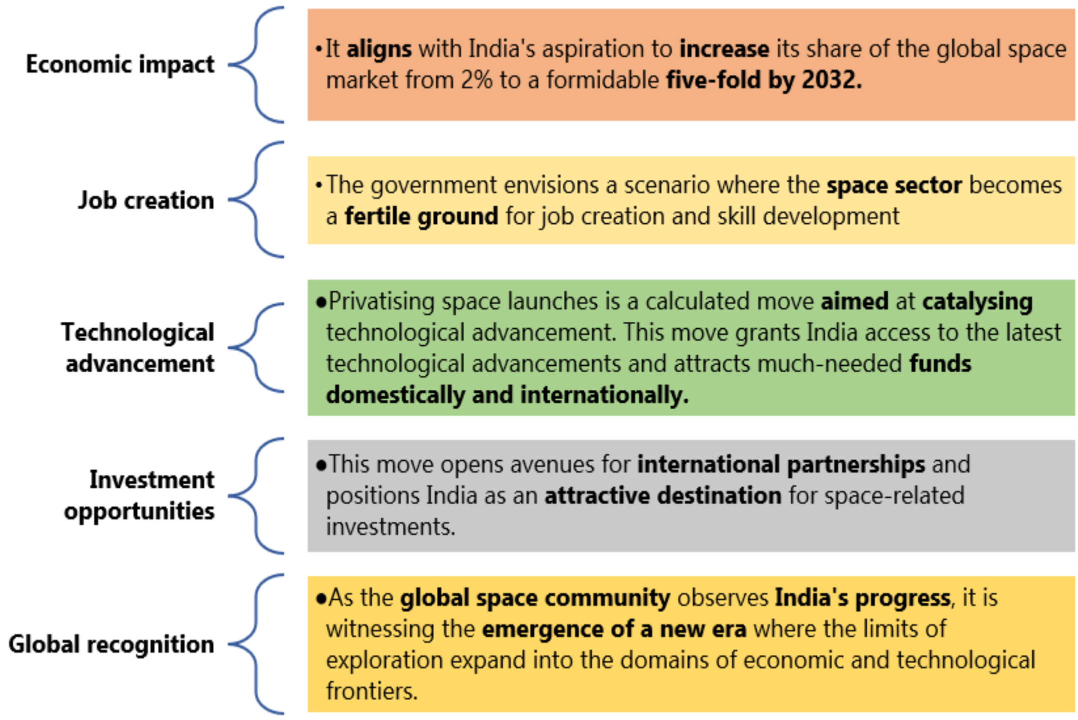


Figure: Significance of the policy shift

Current status of the Indian Space industry:

- At present, the Indian space economy is valued at around ₹6,700 crore ($8.4 billion), with a 2% share in the global space economy.
- As per IN-SPACe's projection, India's space economy has the potential to reach ₹35,200 crores ($44 billion) by 2033 with about 8% of the global share.
- At present, the share of the domestic market is ₹6,400 crore ($8.1 billion). The export market share is ₹2,400 crore ($0.3 billion). The aim is to increase the domestic share to ₹26,400 crore ($33 billion) and the export share to ₹88,000 crore ($11 billion).
- Besides, an investment of ₹17,600 crore ($22 billion) is envisioned for the next 10 years in the industry.

Way Forward:

- Building a vibrant space industry also requires comprehensive **fiscal and non-fiscal incentives** from the government, spanning **taxes, capital access, R&D grants, guaranteed orders, export promotion** and more.
- **GST exemptions, lower tax rates** on foreign capital, **lower customs duties** on raw materials/machinery imports, **tax holidays** for manufacturers, etc., are key to improving private project viability. Accelerated depreciation, **higher R&D tax deductions,** and **deemed export status** are other recommendations from the industry.
- On non-tax incentives, suggestions include **early-stage grants for startups** and augmenting **Technology Development Fund Corpus,** viability gap funding to set up test facilities, reservation of satellite transponder capacity over 5 years for private players, preference for Indian companies in **public procurement tenders** and **Buy Indian guidelines.**
- Regulatory updates like the **Space Activities Bill,** which is under finalization, should also incorporate liberal, growth-oriented provisions factoring in private sector requirements.

India's Electronics trade amid declining Chinese export

News Excerpt:

India lags far behind global competitors like **Vietnam, Taiwan, and Mexico** in leveraging the US's tariff measures against China to boost electronics exports.

U.S.-China trade war:

- In 2018, the US imposed a **25% punitive duty** on a range of **Chinese electronics** items.
- The trade duties led to a **sharp fall in Chinese electronics** exports to the US from **$207 billion** in **2018 to $140.2 billion in 2019.**
- The fall created a vacuum as the **US is the largest importer of electronics** products globally.

India's Electronic Export to the USA:

- India's electronics exports to the US rose by **$7.6 billion** in absolute terms between **2018 and 2023,** up at **$8.9 billion from $1.3 billion in 2018.**
- Despite this **seven-times increase,** it represented **only 5.5%** of the total **non-Chinese incremental electronics exports** to the US in this period.

Challenges faced by Electronics manufacturing in India:

Infrastructure limitations	The cumbersome process of **land acquisition & the absence** of a **plug-and-play model.**
Supply Chain constraints	The lack of a **robust electronic component ecosystem** that requires components to be **imported, which results in increased costs** and time for the manufacturers.
Regulatory Environment	**The lack of uniform implementation** of initiatives as well as **high tariff on electronics** as compared to Asian peers such as Vietnam and Taiwan.
Lack of skilled workforce	Acute shortage of skilled labour is hurting their profitability with **35% defining the impact as "severe".**
Cost Competitiveness	**Increase of GST rates** on some items as well as less favourable subsidy structures in India. Unlike India, others provide Income Tax Holidays to make it more favourable.

Other global contenders:

The bulk of the shift of US trade has gone to **Vietnam, Taiwan, and Mexico:**

- **Vietnam**
  - Vietnam has been the **biggest beneficiary** at China's cost.
  - It saw an incremental increase in electronics exports worth **$39.1 billion** between **2018** and **2023.** Vietnam's exports rose from **$12.1 billion in 2018** to **$51.2 billion in 2023.**
  - This figure represents a **28.3%** share of the total **non-Chinese incremental electronics exports** to the US in absolute terms during the same period.
- **Taiwan:**
  - Taiwan is also ahead of India, having grabbed a **25.6% share** of incremental exports, rising from **$18.1 billion in 2018 to $53.5 billion** in 2023.
- **Mexico:**
  - **Mexico,** too, has seen a rise in incremental electronics exports to the US in absolute terms, representing **11.2% of non-Chinese exports.**

Way Forward:

- The vision of a **'Self-Reliant India'** will only be realized if various sectors in manufacturing scale up their capabilities and technology adoption.
- The need of the hour is to build an environment that **fosters innovation, protects intellectual property, focuses on skill development,** and **builds infrastructure** that supports the **ecosystem.**
- Boosting **export-led electronic manufacturing** will make India's manufacturing **globally competitive**.
- The **Production Linked Incentive (PLI)** scheme that is aimed at promoting domestic manufacturing is likely to give an aggressive push to ensure large multinational companies bring their global manufacturing and supply chain capabilities to India.
- India can also offer a mix of **incentives** to lure investors like others such as **tax breaks**, **dedicated free-trade** or **industrial zones, discounted utilities like water** and **electricity, free land,** and commitments to supply workers.

15% global minimum tax in Europe

News Excerpt:

Indian multinationals with a presence in **18 European Union nations, the UK, Vietnam, and South Korea**, will be subject to a **15% global minimum tax rule** after they implement rules for the tax reform.

More on the news:

- Some **130 countries**, including **India**, have **signed on to the global tax reform**.
- However, the countries (European Union nations, the UK, Vietnam and South Korea) mentioned above have **implemented domestic rules,** which are **effective from 1 January 2024 or later.**
- Given the implementation of the **Global Anti-Base Erosion (GloBE) rules** in these countries from 1 January, **Indian-headquartered multinational business groups** with a presence there will be **required to comply with the GloBE rules even if India** has **yet to implement them.**
- Accordingly, **Indian multinational groups** will have to **provide** for **top-up tax**, if applicable, in their financial statements for the year ending 31 March 2024.

What is the top-up tax?

- It is the **difference between the globally agreed minimum tax rate of 15%** and the **effective tax rate (ETR) the entity in the low-tax jurisdiction is subject to.**
- **If the low-tax country does not neutralise its tax advantage** by introducing what is called a **Qualified Domestic Minimum Top-up Tax (QDMTT),** the intermediate holding company or the ultimate parent in other jurisdictions will be subject to a top-up tax.

- **Eighteen of the EU's 27 nations** have put in place **domestic laws** for the **global minimum tax** as per the **EU directive.**

- The **consequence of failure to pay the new tax** would be a **top-up tax** in the jurisdiction applicable.
- Ideally, **most headquarters jurisdictions** would **impose the top-up tax**, but under some circumstances, it could be **other jurisdictions** in which the **multinational enterprise operates.**
    - **Alternatively,** the **tax jurisdiction** where the **income arises** could **impose** a Qualified Domestic Minimum Top-Up Tax (QDMTT).

Potential Impact on Developing Countries:

While the global minimum tax has been heralded as a major step towards fairer taxation, **developing countries** have **expressed their concerns** about its potential impact.

- One of the main concerns for developing countries is the **potential loss of tax incentives.** These countries fear that the **elimination of tax incentives** could **discourage foreign direct investment (FDI)** and **hinder their economic development**.
- **Tax incentives** have played a **crucial role in attracting investments**, and developing nations worry that the **removal of these incentives** could **make them less competitive in the global market.**
- Additionally, **developing countries** are **concerned** about the **potential loss of tax revenues to developed countries.**
- Under the global minimum tax rules, **if a developing country's tax incentives result in an effective tax rate below 15%**, the **home country of the MNE** may **collect** the **minimum tax instead.**
    - This could lead to a **shift of tax revenues from developing countries to developed nations**, further exacerbating existing inequalities.

What is the global minimum tax?

- The global minimum tax was **agreed upon by 137 countries** and jurisdictions as **part of the OECD/G20 Inclusive Framework on Base Erosion and Profit Shifting (BEPS)**.
- The **aim** of the global minimum tax is to **ensure** that **multinational enterprises (MNEs) pay a minimum tax rate of 15% in each country** where they operate, thus **preventing profit shifting and tax avoidance.**
- It consists of **two pillars**.
    - **Pillar one** focuses on addressing tax challenges arising from the digitalization of the economy.
    - **Pillar two**, known as the **Global Anti-Base Erosion (GloBE) rules**, establishes the base rate approach for the global minimum tax.
        - It sets a minimum tax rate of 15% for MNEs with a turnover above a certain threshold.
        - The intention is to **prevent MNEs from shifting profits to low-tax jurisdictions** and **engaging in harmful tax competition**.

Navigating the Global Minimum Tax Landscape:

Given the potential challenges posed by the global minimum tax, **developing countries need to navigate this new tax landscape carefully.** Here are **some key considerations for developing nations:**

- **Reviewing and Modifying Tax Incentives:**
    - Developing countries should conduct a **comprehensive review of their existing tax incentives** to assess their compatibility with the global minimum tax regime.
    - This review should **aim** to identify and **modify any tax incentives** that may be **affected by the minimum tax rate of 15%.**
- **Strengthening Tax Administration and Enforcement:**
    - To ensure compliance with the global minimum tax rules, **developing countries need to strengthen their tax administration and enforcement mechanisms.**
    - This includes **investing in technology** and **capacity-building** to enhance their ability to monitor and collect taxes effectively.
    - Developing nations should also **consider collaborating with international organizations** and other countries to **share best practices** and enhance their tax administration capabilities.
- **Advocating for Equity and Inclusivity:**
    - Developing countries should **actively participate in international tax discussions to advocate for their interests** and ensure that the global minimum tax regime is fair and inclusive.
    - They should **seek to address concerns related to the distribution of taxing rights, the impact on tax revenues**, and the **potential disadvantages** faced by developing countries.
    - By actively engaging in the global tax reform debate, developing nations can influence the design and implementation of the global minimum tax.
- **Exploring Regional Cooperation:**
    - Developing countries can also **consider exploring regional cooperation to address the challenges posed by the global minimum tax.**
    - By collaborating with neighbouring countries, developing nations can **develop regional strategies to attract investment, harmonize tax policies, and collectively negotiate with MNEs.**
    - Regional cooperation can help mitigate the potential disadvantages faced by individual developing countries and present a unified front in international tax discussions.
- **Diversifying the Economy:**
    - Developing countries should **focus on diversifying their economies to reduce their**

reliance on specific sectors or industries that may be more susceptible to the impact of the global minimum tax.
  - By promoting economic diversification, developing nations can create resilient economies that are less vulnerable to changes in the global tax landscape.
- **Evaluating the Impact on FDI:**
  - Developing countries **should closely monitor the impact of the global minimum tax on FDI.**
  - Developing nations should **track investment trends, evaluate the effectiveness of alternative investment strategies, and adjust their policies accordingly.**
- **Promoting Transparency and Accountability:**
  - Developing countries should **prioritize transparency and accountability in their tax systems to build trust and attract investments.**
  - By implementing robust **anti-corruption measures, promoting transparency**, and **enforcing strong corporate governance standards**, developing nations can create an enabling environment for investors.

Way forward:

- **For India,** many experts expect the **Central Board of Direct Taxes (CBDT)** to come out with legislative amendments to the **Income Tax Act** to implement the global minimum tax regime and levy any top-up tax it needs.
- **Indian-headquartered groups with subsidiaries in low-tax jurisdictions**, especially those that have already announced the implementation of the 15% global minimum tax regime, should **evaluate its impact while preparing consolidated group financials.**

Global Financial Stability Report

News Excerpt:

The **International Monetary Fund (IMF)** released the latest global financial stability report **warning** about the **risks** to the **global financial system** from persistent **high inflation**, **rising lending** in the **unregulated credit market**, and **increasing cyber-attacks** on **financial institutions.**

What is the IMF's worry about inflation?

- The **IMF believes** that **investor enthusiasm about slowing inflation in the public** and a possible cut in interest rates by central banks **may be quite premature.**
- **Investors** have been **pushing up the prices of financial assets** such as stocks in recent months, **hoping** that **central banks** will soon begin **lowering interest rates** as inflation comes under control.
- **Although central banks** have **yet to lower interest rates**, investors may take falling inflation as a cue that they will soon flush the markets with more money to lower interest rates.
  - **So, they purchase financial assets in anticipation of greater demand** when banks lower interest rates, thus pushing up the prices of these assets right now.
- The **IMF** has also **warned** that **geopolitical risks**, such as the **ongoing wars in West Asia and Ukraine**, could **affect aggregate supply and lead to higher prices.**
  - **This might stop central banks from lowering rates anytime soon.**
- **If these risks persist**, the IMF believes **that investors** who have been **bidding up asset prices** and expecting fresh money from central banks to push up asset prices in the near future **may change their minds.**

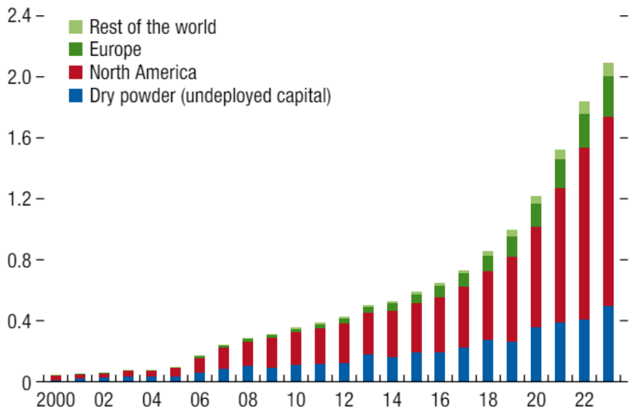
What does it mean for India?

- In 2023, **India** was the **second-largest recipient** of **foreign capital after the U.S.**, according to Elara Capital.
- However, **things could change quickly** if **Western central banks signal** that **they can keep interest rates high for a long time.**
  - This could **cause investors to pull money out of emerging markets like India** and **increase pressure on their currencies.**
- **If Western central banks fail to lower interest rates, a severe outflow of capital could cause further depreciation of the rupee** and affect the country's financial system.
- In such a scenario, the **RBI will likely defend the rupee by curbing liquidity to raise interest rates**, which could cause the economy to slow down.

What about the private credit market?

- In its report, the **IMF noted** that the **growing unregulated private credit market**, in which **non-bank financial institutions lend to corporate borrowers**, is a **growing concern**.

Figure ES.7. Private Credit Growth
(Trillions of US dollars)



- **Non-bank financial institutions lending to corporate borrowers** include **institutional investors** such as **pension funds** and **insurance companies**.
    - **Institutional investors** are investing in the private credit market because **they offer higher returns than normal investments.**
- Meanwhile, the **borrowers benefit** as they **cannot get convenient long-term funds through other venues.**
- The **IMF** is **worried** that the **borrowers** in the **private credit market may not** be **financially sound** and noted that **many of them do not have current earnings that exceed even their interest costs.**
- It also argues that **since these loans rarely trade in an open, liquid market** as many other securities do, it might be **hard for investors to gauge the risk involved.**
- **In a highly liquid market** where securities are traded frequently, investors price the **real risk behind a loan more immediately** and more **accurately.**
- **It may be the case** that **institutional investors** are fully **willing to bear the risk in return for higher returns.**
- **India** has also **seen the growth of a small private credit market** with the rise of **Alternative Investment Funds (AIFs)**.
    - The **Securities and Exchange Board of India (SEBI)** notes that **investments made through these funds**, although still small, have **more than tripled from ₹1.1 lakh crore in 2018-19 to ₹3.4 lakh crore in 2022-23.**

Increasing Cyber-Attacks:

- With growing digitalization, evolving technologies, and increasing geopolitical tensions, cyber incidents—especially those with malicious intent—are a **rising concern for macro financial stability.**
- Although most losses from cyberattacks are modest, the risk of extreme losses has been increasing. They acutely threaten the financial system because of its **exposure to sensitive data, high concentration, and technological and financial interconnectedness.**

Way Forward:

- Central banks should **avoid premature monetary easing** and appropriately push back against overly optimistic market expectations for policy rate cuts.
- Ensure that banks are prepared to access central bank liquidity and **intervene early to address liquidity stress** in the financial sector can mitigate financial instability.
- Given the potential risks of the fast-growing private credit market, authorities should consider a **more proactive supervisory and regulatory approach** to close data gaps.
- A cybersecurity strategy can strengthen the cyber resilience of the financial sector, **accompanied by effective regulation and supervisory capacity,** as well as by improved reporting of cyber incidents.

Why the new government should embrace global markets

News Excerpt:

This article provides an overview of **India's Trade policy** which is attempting to strike a balance between **liberalization and protectionist trends**.

Conflicting policy:

- More than **thirty years after liberalization**, India still exhibits **protectionist tendencies**.
- As the nation aims to become a **key player in global geopolitics**, its hesitation to integrate into **global value chains** is counterproductive.
- India faces a **dual challenge**. Promoting its **vision of Atmanirbhar Bharat**, which emphasizes **self-reliance** and **prioritizing domestic goods** over imports, while achieving the target of **$1 trillion in exports is not an easy task**.
- India's path to free trade and multilateralism has been challenging. The country pursued **aggressive import substitution in the 1980s** but found it **contradictory to export promotion**.
- Without boosting trade, India cannot replicate the successes of its **East Asian counterparts**, nor can it compete effectively without **enhancing its competitiveness**.

Emergence of Protectionist Trends:

- The **Global Financial Crisis of 2008**, the **Euro Zone struggles of 2010**, and the recent economic downturn due to the **COVID-19 pandemic** have led many governments to **reevaluate their global engagements**.
- The pandemic underscored the **impact of import disruptions**. While diversifying **GVCs is a long-term goal**, it incurs short-term costs.
- India is relying on initiatives like **production-linked incentives (PLIs)**, which offers financial rewards for local production.
- As of November 2023, **PLIs** have resulted in **production/sales of Rs 8.61 lakh crore** and created over **6.78 lakh jobs**.

Free Trade Agreement and India:

- Previously, India withdrew from the **Regional Comprehensive Economic Partnership (RCEP)** negotiations due to its **trade deficit with China**, unmet demands on **professional cross-border movement**, and concerns from its **farm and dairy sectors** about competition from countries like **New Zealand and Australia**.

India's Stance on liberal trade policy:

- **Post the 1991 crisis**, India adopted a **liberal trade policy** but hesitated on further trade reforms due to **trade deficits** with countries it had agreements with. This cautious approach **slowed its liberalization** and **participation in GVCs**.
- However, India's strategy has improved. It has **signed several Free Trade Agreements (FTAs), including four since 2021** after a nine-year hiatus. These include agreements with **Mauritius, the UAE, Australia, and the EFTA countries**.
- Despite this progress, **India remains ambivalent** about regional trade agreements like the **Regional Comprehensive Economic Partnership Agreement (RCEP)** and The **Comprehensive and Progressive Agreement for Trans-Pacific Partnership (CPTPP)**, preferring multilateralism through the WTO.
- Geopolitically, India seeks to position itself as an **alternative manufacturing hub to China**, competing with countries like **Vietnam, Cambodia, and Bangladesh**.

Way Forward:

- Despite positive economic indicators, India needs **open global markets** more than ever to **boost exports** and **foster domestic market efficiency**.
- **Digital public infrastructure (DPI)** is gaining attention as a transformative tool using digital technologies to connect people and devices in India. It has **attracted global interest**, enhancing its **soft power**.
- However, India must balance this approach carefully. To become a "**rule-shaper**" rather than a "**rule-taker**," India must fully **embrace global markets**.
- For a **labor-abundant economy**, **subsidizing job creation** is preferable to subsidizing industries. Now is the time to shed inhibitions and repeat the **bold reforms of 1991** without waiting for a crisis to prompt action.

Rare Current Account Surplus

News Excerpt:

India's Current account saw a rare **net surplus of $5.7 billion** in the **first quarter of 2024**.

More details about the news:

- This surplus means more money entered the country than left, helping to **limit the deficit** for **2023-24 to $23 billion**, or **0.7% of GDP**.
- Excluding the first pandemic year, this deficit is the **lowest in seven years** and the **second-lowest in two decades**.

Reason of Current Account Surplus:

- The **Reserve Bank of India** noted an **increase in investments** driven by **higher government spending** and a **booming housing sector**.
- **Rating company Crisil** recently estimated investments at **33.7% of GDP in 2023-24**, a 1.5 percentage point increase, implying a **33% savings rate** for a **0.7% current account deficit** (CAD).
- A **rising savings rate** allows for **greater investments** while keeping the **current account deficit stable**.
- Thus, a **deficit resulting** from strong savings and investments can still **promote growth**.

Fig: Domestic Savings and Investments

Demographic Profile:

- India's demographic profile is **theoretically ideal** for a **high savings rate**.
- An increasing share of the **working-age population** should boost **production, income, and savings**, while a **declining fertility rate** should lead to **more women in the workforce**.
- This **demographic dividend** increases **labour strength and productivity.**
- However, **India's savings rate** hasn't grown sufficiently in recent years due to issues like **inadequate job creation**, **poor labour skills**, and **economic setbacks** from **demonetization** and the **pandemic**.

Rising Investment Demand:

- Therefore, the **current growth rate in savings** is unlikely to meet the **investment scale needed** for strong economic expansion, resulting in a CAD.
- Drawing on **overseas savings** will be essential to benefit from the **demographic dividend**.

Foreign Exchange Inflows:

- India's markets are **well-positioned to receive foreign exchange inflows**.
- As one of the **world's fastest-growing economies**, **post-election investments** that were on hold are likely to resume. If the **US starts cutting rates** before the year-end as anticipated, there could be a **re-routing of global capital** towards emerging markets, including India.

Current Account Deficit: Good or Bad?

- A **CAD** at this time could balance **expected capital inflows** and **stabilize the rupee**.
- A current account surplus isn't always good, nor is a deficit always bad. What matters is the **quality and sustainability** of the **deficit or surplus**.
- A **deficit driven by investments** in projects with **sustainable future benefits** is **good**.
- A **surplus from unused savings** due to a **lack of domestic investment opportunities is bad**.
- In India's case, a **deficit caused by high gold imports is bad**, as would be a **surplus driven only by remittance inflows**.
- A **current account deficit** is not always detrimental, and a surplus is not always beneficial.
- **Developing economies** like **India** often run a **current account deficit** due to the need to **import capital goods** to boost **production capacity**.
- A **trade deficit** can also indicate **strong domestic demand**.

Global Scenario:

- **Half of the top 20 emerging markets** have persistent **CADs.**
- The **surplus countries are either oil-rich** (Russia, Iran), **export-oriented** (China, Thailand, Korea) or **rising export stars** (Vietnam).

Challenges:

- The **rupee** has been one of the **best-performing currencies this year** in both nominal and real terms.
- However, **geopolitical tensions** and **rising protectionism** could cause even a **moderate appreciation of the rupee** to make **India's exports more expensive** and **less competitive**.

Way Forward:

The key takeaway is that instead of labelling a deficit as good or bad, **India needs to build long-term export potential** while creating an **institutional environment** that efficiently attracts and uses foreign capital to fund moderate deficits in the short term.

World Investment Report 2024

News Excerpt:

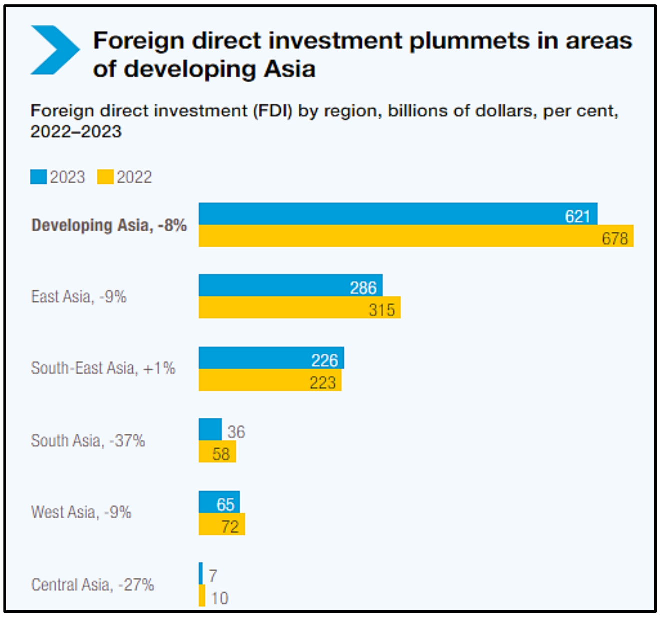
UN Trade and Development (UNCTAD) released the **World Investment Report** for 2024.

Key points of the Report:

- **Global foreign direct investment (FDI) decreased by 2%** to **$1.3 trillion** in **2023** due to an **economic slowdown** and rising **geopolitical tensions**.
- **However, excluding large investment flow fluctuations in certain European conduit economies, the decline surpasses 10%.**

FDI Trend in India

- **India fell seven spots** in the global foreign direct investment (FDI) ranking to **15 as inflows** declined **43% to $28 billion** in **2023**. The country saw FDI inflows worth **$49 billion** in **2022**.
- **Net foreign direct investment (FDI)** in India, which is the difference between inflows and outflows, **plummeted by 62.14% to $10.6 billion** in the financial year ending March 31, 2024 (FY24), from $28 billion the previous year, according to Reserve Bank of India (RBI).
  - This marks the **lowest level of net FDI since 2007**, largely **due to increased repatriation of capital.**



Regional Trends

- **Developing Countries:** FDI to developing countries **fell by 7% to $867 billion**.
- **Africa:** FDI **fell by 3% to $53 billion**, but there were some significant new projects, like a **green hydrogen project in Mauritania**.
- **Asia:** Investment **dropped by 8% to $621 billion**, with significant declines in China, India, and West and Central Asia, while South-East Asia remained stable.
- **Infrastructure investment:** Tight financing conditions led to a **26% fall in international project finance deals**, critical for infrastructure investment.
- **China:** China is the **world's second-largest FDI recipient**, experiencing an **unusual drop**.
- **India: Sizeable declines** were recorded in **India** and in **West and Central Asia.**

Reasons for Declining FDI Trend

- Crises, protectionist policies, and regional realignments are disrupting the global economy, fragmenting trade networks, regulatory environments, and global supply chains.
- This fragmentation undermines the stability and predictability of global investment flows, creating both obstacles and isolated opportunities.

Future Prospects

- Despite the challenges, **modest growth in FDI for 2024** is possible due to **easing financial conditions** and efforts to **facilitate investment**.
- Some sectors, like **automotive and electronics manufacturing**, are seeing growth, especially in regions with good market access.
- However, many **developing countries struggle to attract investment** and join global production networks.

Impact on Sustainable Development Goals

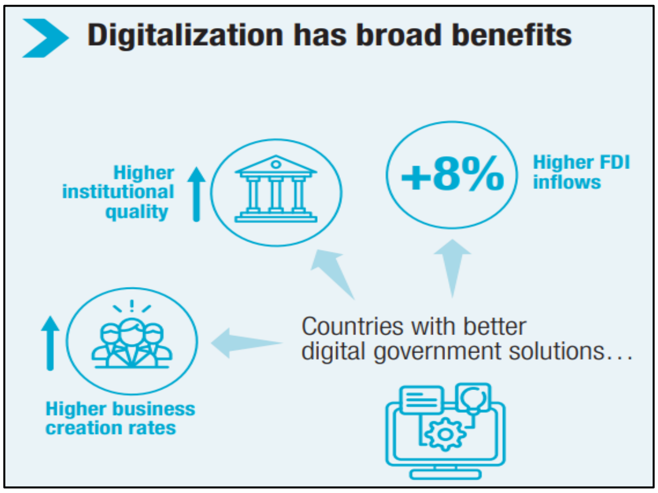
- **The decrease in project finance negatively impacted sustainable development, with new funding for Sustainable Development Goals (SDGs) sectors dropping by over 10%, especially in agrifood and water.**
- **Agrifood systems** and **water** and **sanitation** had **fewer projects** in 2023 than in 2015.
- **Tight financing conditions** in 2023 led to a **26% drop in international project finance**, which is crucial for **infrastructure** in areas like **power** and **renewable energy**.
- **Sustainable bonds showed slight growth** in 2023, while investment in sustainable funds **fell by 60%**.
- Concerns about **greenwashing** (misleading sustainability claims) are making investors cautious.
- **Policy actions are needed** to prevent a backlash against sustainable investment strategies.

International Investment Agreements

- In 2023, **29 new international investment agreements** were made, fewer than half being traditional bilateral treaties.
- **Reforming older agreements is slow**, with about half of global FDI still governed by **unreformed treaties**, increasing **legal disputes**, especially in developing countries.

Digital Government

- The report advocates for a **bottom-up approach** to digital government development, starting with basic business services and gradually expanding.
- Since 2016, **online single windows** in developing countries have **increased** from 13 to 67, and in developed countries from 12 to 28.
- **Information portals** for business and investor registration also expanded significantly.



Way Forward:

- The report suggests that **business facilitation** and **digital government solutions** can boost investment by creating a transparent and efficient environment.
- It suggests a **gradual approach** to implementing **digital government services**, starting with basic business services and expanding to more areas.
- **Investment facilitation** aims to simplify processes for investors through better access to information, transparency, and streamlined administrative procedures.

INDUSTRY AND INDUSTRIAL POLICY

Decentralized Industrialization Model

News Excerpt:

Part of Tamil Nadu's economic success can be attributed to its **Decentralized Industrialization Model**, which involves cluster capitalists and grassroots entrepreneurs.

About the News:

- The agricultural sector's contribution to Tamil Nadu's **Gross Value Added (GVA)** (which represents GDP minus product taxes and subsidies) and the **proportion of the employed labour force** are notably lower than the national average.
- This **reduced reliance on agriculture is balanced by increased shares** of industry, services, and construction within the state's economy compared to the overall Indian scenario.

Economic Complexity in the Agriculture Sector:

- **Gujarat surpasses Tamil Nadu in terms of industrialization,** with the factory sector contributing 43.4% to the state's Gross Value Added (GVA) and engaging 24.6% of its workforce, compared to Tamil Nadu's 22.7% and 17.9%, respectively.
- However, **Gujarat relies more heavily on agriculture**, accounting for a higher share of its GVA (15.9%) and workforce (41.8%) than Tamil Nadu's 12.6% and 28.9%,

respectively. This indicates that **Gujarat's economy is less diversified and balanced than Tamil Nadu's.**

Cluster-based industrialization:

- **Tamil Nadu boasts only a handful of large business conglomerates** with annual revenues exceeding Rs 15,000 crore.
- Rather than relying on the so-called Big Capital, **Tamil Nadu's economic transformation owes much to medium-scale businesses, with turnovers ranging from Rs 100 crore to Rs 5,000 crore.** The state's industrialization has been notably decentralized and spread out, facilitated by the development of various clusters.
- Several of these clusters are extremely renowned, as shown in the figure. Many cluster towns serve as **hubs for multiple industries, offering employment opportunities to locals and reducing the dependence on agriculture.**

Entrepreneurship from below:

- **Early industrialists** in Tamil Nadu were predominantly from the **Nattukottai Chettiars and Brahmin communities.** The Chettiars, known for their traditional banking and trading expertise, had extensive operations in Southeast Asia and Sri Lanka.
    - Disruptions caused by World War II and the Burmese nationalist movement prompted many to reinvest their wealth back home.
- However, the **recent decentralization of industrialization in Tamil Nadu has been driven by entrepreneurs from more ordinary peasant backgrounds** and provincial mercantile castes.
- What's remarkable about Tamil Nadu's entrepreneurial culture is its **inclusivity across diverse communities and industries.**

Way Forward:

- The grassroots or the "**Bottom-up" entrepreneurship seen in Tamil Nadu, coupled with substantial investments in public health and education, appears to play a significant role in the state's success in industrialization** and economic diversification beyond agriculture.
- Given the government's ongoing **'Make in India' initiative**, other states could potentially adopt the Tamil Nadu model and tailor it to their circumstances and relevant factors.

New Electric Vehicle (EV) Policy

New Excerpt:

To promote the manufacturing of electric vehicles in India, the Union Government has approved a new **EV policy** that will pave the way for global EV manufacturers to manufacture locally.

Objectives of the policy:

- The central goal of this policy is to **enable transitioning to localized production** of **EVs** in a commercially viable manner and plan as per local market conditions and demand.
- The move attempts to combine two goals - **localizing production and an annual EV car sale of 30% by 2030.**

Major provisions of the new EV Policy:

- Automakers are permitted to import a **maximum of 8,000 electric vehicles (EVs)** annually, priced at **$35,000 or more**, with a reduced **import duty of 15%.**
    - **Presently**, India imposes **70% to 100% customs duty** on imported vehicles, depending on their value.
    - To qualify for this benefit, automakers must pledge to **invest a minimum of ₹4,150 crore (~$500 million**) in **India** within the **next three years.**
- They are required to achieve a **50% Domestic Value Addition (DVA)** in vehicles manufactured in India **within five years.**
    - A localization level of **25%** by the **3rd year** and **50% by the 5th year** will have to be achieved.
- A maximum of 40,000 EVs can be imported under the scheme at not more than 8,000 units a year, provided the minimum investment made is $800 million.
    - Carryover of unused annual import limits is permitted.
- The scheme will be administered by the **Ministry of Heavy Industries (MHI).**

Impact on the domestic automakers:

- The new Electric Vehicle Policy is likely to **intensify competition** in the electric passenger vehicle (PV) segment but will benefit domestic auto component players due to its emphasis on localization.
- **Positive impact:**
    - The policy makes it lucrative for **global EV players** and **Indian Joint Ventures** with such players to expand sales and manufacture in India.
    - The policy is expected to benefit domestic auto component players who invest in **advanced technologies** that are currently not manufactured in India. It can help the **auto component sector absorb high-end technology** faster, as 50% localization is needed in five years.
    - The new policy will also help the industry **benefit from economies of scale, lower production costs, reduced crude oil imports, lower trade deficit, reduced air pollution (particularly in cities), and a positive impact on health and the environment.**
- **Negative impacts:**
    - **Lowering duties** would **hit the domestic industry**, and **"the investment climate will get vitiated."**

India's EV players required more **government support in the early growth stage of the industry.**

- The entry of Tesla into the Indian market will lead to an increase in competitive intensity and the domestic players will have to step up their play in the electric vehicle segment.
- Some **global OEMs** in the luxury space who have already introduced their EVs in India and are planning to localize "**may be at a disadvantage.**"

- Most Indian players are leading in the segments **below ₹29 lakhs** as of now, and hence this **policy benefit (from 15% import duty)** will likely be for **Original Equipment Manufacturers (OEMs) catering to consumers in the higher end of the market.**

Challenges in EV adoption in India:

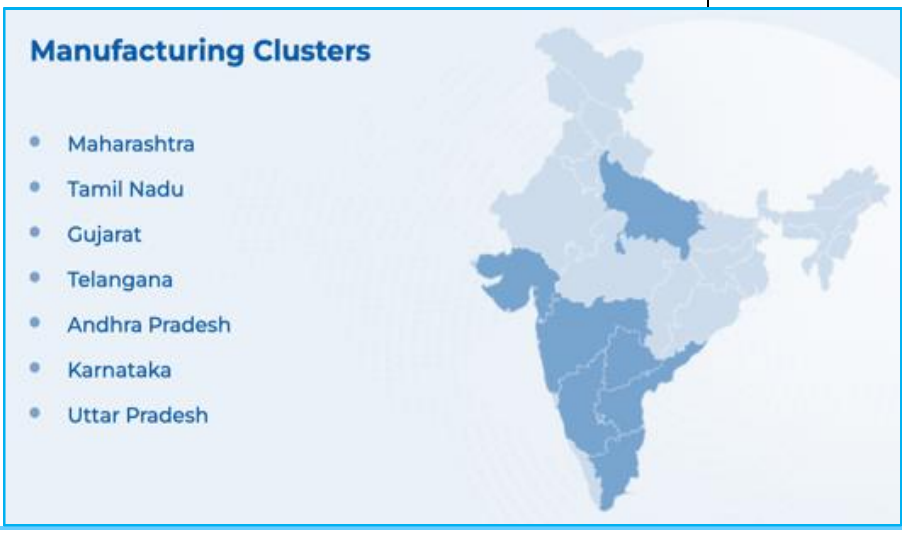
- The Indian EV market, which consists of two and three-wheelers, passenger cars, and even light commercial **vehicles**, is plagued by **low-battery capacity** and **lower range** (when compared with EV models in the E.U., China, and the U.S.), with crucial parts/systems being imported.
- Lack of proper **charging infrastructure,** range anxiety, and a **limited number of products** in the affordable range due to **limited localization** are also major challenges with EV adoption in India.
- The Indian market has **relied heavily only on government incentives till now.** Therefore, global players face the challenge of delivering high-quality products at an accessible price point, along with dependable driving ranges and a robust charging infrastructure.
- **Upscaling** charging infrastructure is crucial to scale EV adoption.
  - According to the Confederation of Indian Industry (CII), India may require at least 13 lakh charging stations by 2030 to support **"aggressive EV uptake."**
  - According to the **Ministry of Heavy Industries,** nine cities with a population of more than **4 million** — **Delhi, Mumbai, Pune, Ahmedabad, Surat, Bengaluru, Chennai, Hyderabad and Kolkata**— would each require **18,000 public charging stations by 2030.**

Impact of the policy on the Indian market and consumers:

- Indian customer expectations are very challenging and very price-sensitive. In the past, global players who entered the Indian market with products made for other countries were not successful.
  - So global players setting up shop in India must consider **local circumstances, like the environment, roads, driving behavior, and usage conditions.**
- The policy will push global OEMs to understand the Indian market in an accelerated fashion.
  - Global EV manufacturers are not only eyeing the Indian market but are also considering **making India a hub for exports.**
  - It is a **win-win scenario** for the **Indian consumer**, the **local EV ecosystem,** and **global OEMs.**
- The localization targets under the scheme would open **significant opportunities for the Indian EV ecosystem.**
  - Excluding chips, battery cells, and magnets, all other components like body parts, motors, and electric parts can be localized within three years, while other areas can be indigenized in the medium term including **BMS (battery management system)** which is mostly software driven.
  - Five years is a sufficiently long-time frame to achieve 50% localization.
- The policy will also **clarify how prospective manufacturers** can make long-term decisions.
- The reduction in custom duty on the import of **completely** built units for testing and market trials would help global players accelerate the development process with reduced risk.

Way Forward:

- The policy attempts to pave the way for **global EV manufacturers** to **invest** in India and to **manufacture locally.**
- It will provide Indian consumers with **access to the latest technology** and **boost the Make in India initiative**, strengthening the **EV ecosystem** by promoting healthy competition among EV players.
- It would lead to **higher production**, **attaining economies of scale,** and **help reduce air pollution.**



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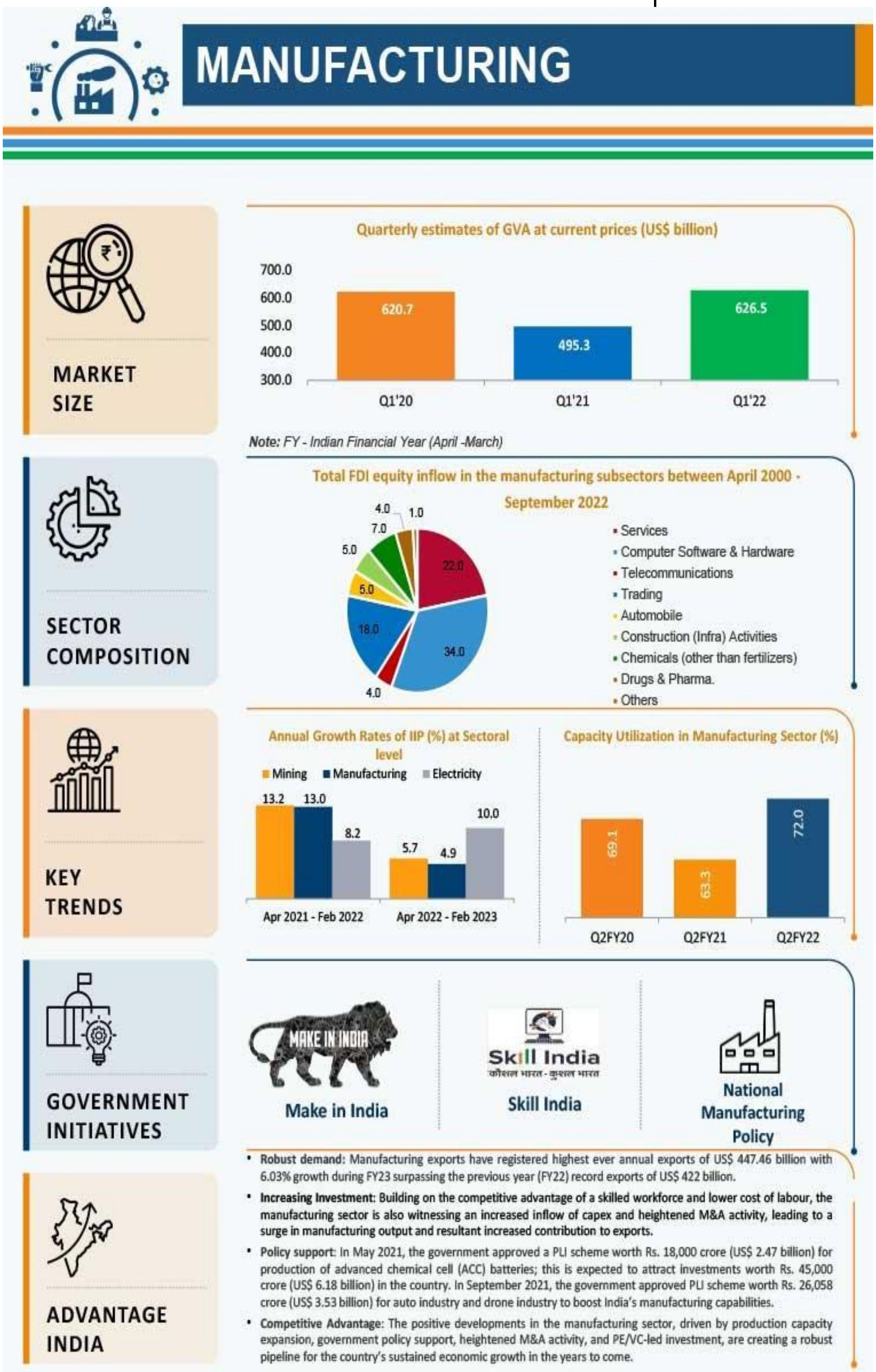


India's drug reliance

News Excerpt

India still heavily reliant on China for life saving drugs, according to CareEdge Report.

- The Indian pharmaceutical industry is the **3rd largest** in the world by volume and provides approximately **60% of the global vaccine supply** and **20-22% of generic exports**. India is often referred to as **"Pharmacy of the world".** It is projected to reach a value of US$ 130 billion by 2030.
- Recently, Cabinet approved the **Policy for the Medical Devices Sector**. It is expected to help the Medical Devices Sector, grow from present $11 Bn to $50 Bn in next five years.
- According to the **CareEdge report**, India imports 43% of total pharma products from China. Moreover, the use of bulk drugs from China has increased from 64% in fiscal year 2014 to 71% in FY23.

About

Constituents of bulk drug imports

- **Lifesaving drugs**: Mainly incudes antibiotics such as penicillin, cephalosporins, azithromycin, etc.
- **Key Starting Material (KSM) or Active Pharmaceutical Ingredient (API):** These are the drug intermediates, used in manufacturing of other drugs. Basically, these are the building blocks of pharmaceutical sector. India's dependency on KSM from China exceeds 50%.
- **Formulations:** It includes various mixtures such as concoctions of AYUSH and other herbal mixtures. Their dependency is around 30-35%.
- **Surgical Products**: It includes Graspers, clamps, bone cutter, needles, and sutures.

Potential risks to healthcare ecosystem

- **Availability:** Such dependency makes Indian healthcare system vulnerable to supply chain disruptions. Geopolitical tension, pandemic alert, or trade disputes can lead to non-availability of life saving drugs to India.
- **Cost:** Over reliance on single supplier can lead to affordability issues, as supplier has the pricing power which can be manipulated during hard times.
- **Sovereignty:** China might use its position to exert influence during the need and emergencies, leading to detrimental health parameters of the country.
- **Safety:** The quality and safety controls of imported drugs can be low, making the healthcare of importer country suboptimal.

Recent incidents of quality failure:

- Around 70 children died in **Gambia**, after consuming substandard cough syrup.

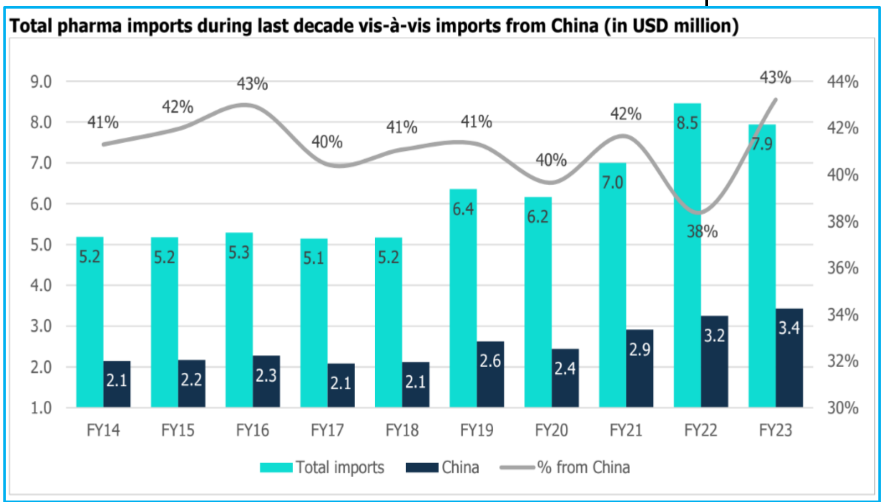
- **WHO** issued a medical alert claimed the substandard quality of Indian made cough syrups.
- Eye drops exported to **USA**, were linked with vision loss.
- Death of children in **Uzbekistan** were also linked with cough syrup.
- In recent regulatory inspections, around **40 drugs failed** to meet the quality standards.

Medical Diplomacy and Vaccine Diplomacy:

India has made the pharmaceutical sector, a tool to strengthen international relations.

In the COVID-19 pandemic, India has supplied essential drugs like Hydro chloroquine, Paracetamol, etc to around 185 countries.

Vaccines of Covid-19 were distributed to the neighbouring as well as distant countries.



Advantages India has in Pharma Industry:

- **Law: Patent Act 1970** has prevented the evergreening of the drugs. This has led to the development of **generic drug market**, of which India is a leader.
- **Affordability:** Indian medicines and treatments are cost effective; this has played a huge role in the projection of India as a destination for **medical tourism**.
- **Infrastructure:** India has highest number of US-FDA compliant plants outside the USA.
- **FDI:** Up to 100% is allowed through automatic route for greenfield investments and up to 74% for brownfield investment. Beyond 74% to 100% in brownfield through government approval route.
- **Product Linked Incentive scheme (PLI):** PLI scheme has high rate of project completions, for e.g. recent Penicillin G manufacturing plant. The scheme since implemented has reduced the import dependency of India on China by providing incentives on increased production to the drug manufacturing companies.

Government initiatives:

- **Promotion of Bulk Drugs Park scheme**: Aim is to develop 3 mega bulk drug parks with the partnership of union and states government.
- **Strengthening Pharmaceuticals Industry scheme**: It seeks to strengthen existing infrastructure of pharmaceutical sector.
- **Production Linked Incentive scheme in Pharmaceuticals**: With an objective to enhance India's manufacturing capabilities and contributing to product diversification towards high value goods in the pharmaceutical sector, 3 different categories of products are being supported under the scheme, viz,

  Category 1: Biopharmaceuticals; Complex generic drugs; Patented drugs or drugs nearing patent expiry; Cell based or gene therapy drugs; Orphan drugs; Special empty capsules, Complex excipients.

  Category 2: Mostly bulk drugs.

  Category 3: Drugs not covered under Category 1 and Category 2 such as Repurposed drugs; Auto immune drugs, anti-cancer drugs, anti-diabetic drugs, anti-infective drugs, cardiovascular drugs, psychotropic drugs and anti-retroviral drugs.

  PM Bhartiya Janaushadhi Pariyojana: Under this initiative Jan Aushadhi Kendra's are opened, to promote and provide generic medicines to the peoples at nominal prices.

Prevalent challenges in pharma sector

- **Research and Development (R&D):** The lack of research is one of the main reasons for the India's drug import dependency on China. India spends less than 1 percent of GDP on R&D.
- **Quality:** Indian drugs have been often found in news recently, mainly because of its substandard quality. This has created a trust deficit with other nations.
- **Regulatory**: India has around 36 drug regulators, which makes the regulation and standardization of drugs a tedious task.
- **Pricing**: Frequent revision of prices by authorities and prices manipulated by drug giants is another important challenge in pharma industry.
- **New diseases**: Recent outbreaks of Tomato flu, Nipah virus and Lumpy Skin Disease in cattle's; earlier Covid 19 pandemic have put pressure on pharmaceutical industry. It is still grappling with aftereffects.
- **Clinical Trials**: The rules and regulations regarding the clinical trials in India are very strict. This discourages the pharmaceutical companies to manufacture and test a new drug.

Way forward

- **The Drugs and Cosmetics Act 1940**, is an old legislation which does not cater to the needs of pharmaceutical sector. It needs to be replaced with a new legislation which addresses the present challenges in the sector.

- The incentives provided to companies under **PLI scheme** should be increased. Though slowly, the scheme has helped in decreasing the import dependency on China.
- There is a need to develop the entire **healthcare ecosystem** – R&D labs, medical institutions, bulk drug parks and logistics facilities like refrigerated containers for swift movement of drugs and vaccines. This will enable the pharmaceutical sector to become aatmanirbhar.

PLI and Manufacturing in India

News Excerpt

Centre mulls changes in PLI scheme, aims to boost manufacturing.

- The Indian manufacturing industry generated 16-17% of India's GDP pre-pandemic and is projected to be one of the fastest growing sectors.
- As per the economic survey, India has the capacity to export goods worth US$ 1 trillion and it has potential to become a global manufacturing hub by 2030. It can add more than US$ 500 billion annually to the global economy.
- India has overtaken China as the second-largest manufacturer of mobile devices in the world, according to a report released by the international research firm Counterpoint.

Need for boost in Manufacturing

- **Demographic Dividend**: India has the youngest population in the world. For raising the employment opportunities, manufacturing needs to be explored and focused upon.
- **Service sector constraints**: The service sector has almost reached its saturation point; it can no longer absorb more people. Manufacturing sector is the labor-intensive sector; hence avenues can be created in this.
- **$ 5 trillion economy goal**: A push in manufacturing sector is needed to realize the goal of making India $ 5 trillion by 2025.

Factors contributing to subdued manufacturing

- **Indian scenario:** Normally a country in its path for economic development, gradually shifts from primary sector to secondary and then tertiary. For e.g China and other developed nations. But India jumped its path of development from primary sector to tertiary sector, skipping manufacturing or secondary sector.
- **Import oriented economy**: In its formative years i.e after independence India did not followed export oriented strategy like south east Asian countries.

Some of the major investments and developments:

The combined index of **eight core industries** stood at 144.6 for Apr-Feb 2023 against 134.1 for Apr-Feb 2022.

The Index of Industrial Production **(IIP)** from April-February 2023 stood at 137.1.

In FY23, the Manufacturing Purchasing Managers' Index **(PMI)** in India stood at 55.6.

In FY23 (until September 2022), **export of top 10 major commodities** (Engineering goods, Petroleum products, Gems and Jewellery, Organic and Inorganic chemicals, Drugs and Pharmaceuticals, Electronic goods, RMG of all Textiles, Cotton Yarn/Madeups, Rice, Plastic and Linoleum) stood at US$ 187.2 billion.

- **Lack of skills:** Only around 4% of the total workforce of India has gone through formal skill training.
- **Income Inequality**: It has led to concentration of wealth in few hands, thereby resulting in low purchasing power ultimately generating less demand.

Government's initiatives regarding Manufacturing sector:

- In the **Union Budget 2023-24:** Start-ups incorporated within a time-period and meeting other conditions can deduct up to 100% of their profits. The income tax rate for new co-operative societies engaged in manufacturing activities has been lowered to 15%. The upper limit on turnover for MSMEs to be eligible for presumptive taxation has been raised to Rs. 3 crores. Relief in customs duty on import of certain parts and inputs like camera lens, lithium-ion cells. It proposes changes in the basic customs duty to rectify inversion of duty structure.
- **Ministry of Defence** has set a target of achieving a turnover of US$ 25 million in aerospace and defence Manufacturing by 2025, which includes US$ 5 billion exports.
- A new category of capital procurement **'Buy {Indian-IDDM** (Indigenously Designed, Developed and Manufactured)}' has been introduced in Defence Procurement Procedure (**DPP)-2016.**
- By 2030, the Indian government expects the **electronics manufacturing sector** to be worth US$ 300 billion.
- Moreover, the government's endeavours such as Modified Special Incentive Scheme **(M-SIPS), Electronics Manufacturing Clusters**, **Electronics Development Fund** and National Policy on Electronics 2019 **(NPE 2019)** have been a huge success.
- The Scheme for Promotion of Manufacturing of Electronic Components and Semiconductors **(SPECS)** has been notified with an aim to strengthen the value chain for the manufacturing of electronic products in India.

- **Make in India initiative**: To facilitate investment, foster innovation, build best in class infrastructure and make India a hub for manufacturing, design and innovation.
- **Industrial Corridor Development Programme**: To develop Greenfield Industrial regions/areas/nodes with sustainable infrastructure & make available Plug and Play Infrastructure.
- **Ease of Doing Business**: By Simplifying, Rationalizing, Digitizing and Decriminalizing Government to Business and Citizen Interfaces across Ministries/States/UTs.
- **PM Gati Shakti National Master Plan (NMP)**: A GIS based platform with portals of various Ministries/Departments of Government. Its approach is to facilitate data-based decisions related to integrated planning.
- **National Logistics Policy**: Aims to lower the cost of logistics and lead it to par with other developed countries.
- Schemes to encourage domestic manufacturing of pharmaceutical drugs including bulk drugs and medical devices are as follows; **Scheme for Promotion of Bulk Drug Parks**, Strengthening of Pharmaceutical Industry **(SPI)**, Promotion of **Medical Devices Parks**.
- **Modified Programme for Semiconductors and Display Manufacturing Ecosystem**: The Programme contained various schemes to attract investments in the field of semiconductors and display manufacturing.
- **FAME-India Scheme** (Faster Adoption and Manufacturing of (Hybrid &) Electric Vehicles): The Phase-II of FAME-India scheme proposes to give a push to electric vehicles (EVs) in public transport and seeks to encourage adoption of EVs.
- **Udyami Bharat Scheme**: empowerment of Micro Small and Medium Enterprises (**MSMEs)** - **MUDRA Yojana**, Emergency Credit Line Guarantee Scheme, Scheme of Fund for Regeneration of Traditional Industries **(SFURTI)**, Raising and Accelerating MSME Performance (**RAMP)** scheme.
- PM Mega Integrated Textile Region and Apparel **(PM MITRA)**: To set up 7 Mega Integrated Textile Region and Apparel (PM MITRA) Parks.

Challenges in Manufacturing sector

- **Competition:** India is late in focusing towards manufacturing sector. As a result other nations now have much developed manufacturing sector, which poses a stiff competition to India.
- **Regulations:** Manufacturing sector still faces regulatory issues like requirement of multiple licenses, red-tapism from bureaucracy, auditing rules, etc.
- **NPA's and lack of access to credit**: Banks and other financial institutions are marred by the problem of NPA's. They are unable to provide credit to manufacturing sector.
- **Logistics**: India's logistics cost is around 13-14% of GDP as compared to average 8% global costs. It has been one of the key reason due to which manufacturing sector is not taking off.

Way forward

- **Skill development:** Workforce needs to be skilled in various domains so that the scarcity of skill labour can be rectified. This can be done by vocational training, introduction of policies and incentivizing businesses.

- **Export oriented economy**: Export focused manufacturing can open untapped avenues for MSME's. Capacity building of MSME's can be done by technology adoption, increased access to finance, mentorship and consultancy.
- **Investing in Infrastructure**: Greenfield and Brownfield infra investment in power, energy, rail, road and other sectors will lead to improved connectivity, reduced logistics cost, efficient supply chains and access to markets. This in turn will provide impetus to the manufacturing sector.

Changes in PLI scheme for white goods

News excerpt:

The central government has introduced changes to the rules governing the production-linked incentive (PLI) scheme for white goods.

Changes incorporated in PLI Scheme for white goods:

- **Shift to Cost-Plus Method**: One significant alteration is the adoption of the "**Cost-Plus**" method instead of the "**Comparable Uncontrolled Price**" (CUP) method for calculating sales prices in cases of captive consumption or supplies to group companies. This shift also necessitates changes to the definition of "**Arm's length**."
- **Eligible Investments Expanded**: The revised guidelines now consider investments in Tool rooms for manufacturing **Moulds and Dies** as eligible under Capital Investment. This expansion broadens the scope of investment avenues for beneficiaries.
- **Extension for Reporting New Facilities**: Beneficiaries are now granted an additional year over and above the initial two years for reporting the establishment of an additional manufacturing facility.
- **Revised Claim Submission Date**: The last date for submission of claims and refunds of excess incentives due to discrepancies between statutory compliance and records provided at the time of claim filing has been updated.
- **Administrative Ministry Site Visits**: The amendment allows for site visits by the Administrative Ministry to ensure compliance with the scheme.
- **Roll Over of Bank Guarantee**: Bank guarantees can now be rolled over, providing flexibility to beneficiaries.

Need/ Opportunities for PLI Scheme for white goods in India:

- India's white goods market is projected to surpass US$21 billion by 2025, at a compound annual growth rate **(CAGR) of 12 %.**
- On average, domestic manufacturing contributes approximately US$4.6 billion to this industry.

White goods: Consumer durables or **home appliances**, which were **traditionally available only in white**. They include appliances such as washing machines, air conditioners, LED lights stoves, refrigerators, etc.

PLI scheme:

Production Linked Incentive (PLI) is a form of performance-linked incentive to give companies **incentives** on **incremental sales** from products manufactured in **domestic** units. It is aimed at boosting the manufacturing sector and to **reduce** imports.

PLI scheme for white goods:

- To promote **Atmanirbhar Bharat**, the PLI scheme for white goods for the manufacturing of components and sub-assemblies of **ACs and LED lights** was notified by the **Department for Promotion of Industry and Internal Trade (DPIIT)** in 2021. The scheme is to be implemented over a **seven-year period, from FY22 to FY29.**
- This initiative is expected to significantly boost **domestic** value addition, elevating it from the current **15-20 %** to an impressive **75-80 %.**

Significance of white goods in PLI Scheme:

- **Reduce reliance on imported appliances:** The PLI scheme aims to reduce the country's reliance on imported appliances by encouraging domestic production, thus **decreasing** the **trade deficit**.
- **Stimulating economic growth:** Increased production and consumption of these appliances contribute to **higher GDP** and create employment opportunities.
- **International standards:** The scheme encourages companies to meet international quality and safety standards, improving the quality of white goods.
- **Better supply chain ecosystem**: The growth in white goods manufacturing can encourage the development of a robust supply chain ecosystem making India an integral part of the global supply chains.
- **Advancement of technology:** To qualify for PLI benefits, manufacturers are encouraged to invest in advanced technology, research and development, and innovation.

Way Forward:

The recent changes introduced in the PLI for White Goods signify the government's commitment to promoting the domestic manufacturing ecosystem and bolstering India's presence in global supply chains. These modifications seek to streamline the scheme's operation, attract investment, and enhance the ease of doing business, thereby contributing to the "**Atmanirbhar Bharat"** vision of self-reliance.

India's Textile Sector: ESG Challenges

News Excerpt:

The Indian textile industry faces challenges from the EU's CBAM and ESG norms, prompting sustainability shifts.

Carbon Border Adjustment Mechanism (CBAM)

- Carbon Border Adjustment Mechanism (CBAM) is a European Union (EU) regulation.
- The introduction of the CBAM significantly impacts businesses importing goods into the EU.
- The EU needs the Carbon Border Adjustment Mechanism to achieve its ambitious emission reduction targets and achieve climate neutrality by 2050.

The CBAM will tackle the risk of carbon leakage non-discriminatively and fully comply with WTO rules.

ESG

Environment	Social	Governance
climate change mitigation	equal opportunities, incl. gender equality, equal pay, inclusion	role of admin. management and supervisory bodies
climate Change adaptation	working conditions, incl. health & safety, social dialogue	business ethics, incl. anti-bribery & anti-corruption
water and marine resources	human rights, incl. slavery, child labour	political engagement/lobbying
resource use and circular economy		business partner management, incl. payment
pollution		internal control and risk management systems
biodiversity & ecosystems		

More about the news:

- There is a palpable concern in India's textile sector, dominated by small businesses, about the impact of new rules like the EU's **Carbon Border Adjustment Mechanism (CBAM)** and complying with **environmental, social, and governance (ESG)** norms.
- There is also recognition that this might be the moment to attempt a paradigm shift in sourcing, production, pricing and supply processes.

Sustainable practices in India's textile sector

Some sustainable practices that India's textile and clothing sector has invested in over the past two decades. **For example:**

- The textile and apparel sector in Tamil Nadu contributes more than 50% of installed renewable energy capacity in the State; nearly 300 textile processing units in Tirupur are connected to common effluent treatment plants with zero liquid discharge.
- In Panipat, Haryana, open-end spinners use only recycled fibre, and India recycles almost 90% of its used PET bottles into the fibre.

EU's Environmental, Social, and Governance (ESG) goals

- The European Union (EU) has introduced the **CBAM** as part of its **ESG goals.**
- CBAM aims to address carbon emissions associated with imported goods by imposing charges on products from countries with lower environmental standards.
- This mechanism encourages adherence to **sustainable practices**, aligning with the EU's commitment to the European Green Deal.
- The CBAM rules impact India's textile sector, particularly **small businesses**, requiring compliance with stringent environmental norms to continue accessing the EU market.
- This underscores a need for a significant shift in the sector's sourcing, production, and supply processes.

ESG challenges in India's textile sector:

- **The hurdle for MSME**: The ESG challenges in India's textile sector are multifaceted. Dominated by Micro, Small, and Medium Enterprises (MSMEs), the sector faces significant hurdles in complying with ESG standards, especially those set by the EU.
- **Multifaceted challenges**: These challenges include the need for substantial investments in sustainability, documentation of sustainable practices, and the certification of compliance.
- **Need for paradigm shift**: The sector is urged to embrace a paradigm shift in various aspects, such as sourcing, production, pricing, and supply processes, to align with global sustainability demands. The transition is deemed a "**do or die situation**" by industry experts, emphasizing the urgency for the sector to adapt.
- **Additional costs**: The compliance and documentation processes come with additional costs, impacting MSMEs' already thin profit margins**.**
- **The reluctance of buyers**: The variation in ESG standards among individual European countries and the reluctance of buyers to support increased product prices further complicate the sector's transition to sustainable practices.
- **Balancing sustainability demands**: Despite positive strides and governmental support, the textile sector faces a crucial moment in balancing sustainability demands with economic viability and global competitiveness.

Other issues facing the textile industry in India:

- **Rise in price:** The sudden upward trend for man-made fibre or fabrics started in 2022, largely due to last year's **skyrocketing cotton prices.** This pushed many domestic small and medium units to compromise on

quality to meet the domestic textile demand at a lower cost.

  - With the cotton crop expected to touch a 15-year low in 2023-2024, a rise in prices is anticipated, further paving the way for more textiles, natural and manmade, to hit the domestic market.

- **Inverted Duty Structure**: The **man-made fibre (MMF)** value chain in the textile industry faces an inverted duty structure, where taxes on final products are lower than taxes on inputs. This leads to an accumulation of input tax credits, causing business working capital flow issues and a revenue outflow for the government.
- **Limited Market Access for Exports**: India faces a disadvantage in international markets due to duties imposed by importing countries. Unlike countries such as Bangladesh, Sri Lanka, and African nations, India does not enjoy duty-free access, making its textiles less competitive on the global stage.
- **Skill shortage**: The skill shortage in the Indian textile manufacturing landscape also warrants a mention.
- **Overdependence on manual labour**: It causes mistakes, oversights, and random negligence, resulting in suboptimal machine usage **(Utilisation of Machines),** frequent downtimes, and considerable loss of productivity.

Textile Industry & Market Growth in India:

- India exports 16% of its cotton textiles to the EU, 40% of its synthetic fabric, and about a third to 28% of its total apparel exports to European countries.

Various Steps taken by India

- The Indian government has taken several steps to address the challenges faced by the textile sector. The **Ministry of Textiles has formed an ESG task force** to consider supportive interventions for the industry.
- Industrial associations collaborate with organizations to help exporters implement systems, document measures, and obtain necessary certifications.
- The **Cotton Textiles Export Promotion Council** is promoting the Indian cotton **brand Kasturi** with traceability.
- Additionally, some financial institutions are reaching out to MSMEs to fund green and sustainable projects.

Way Forward:

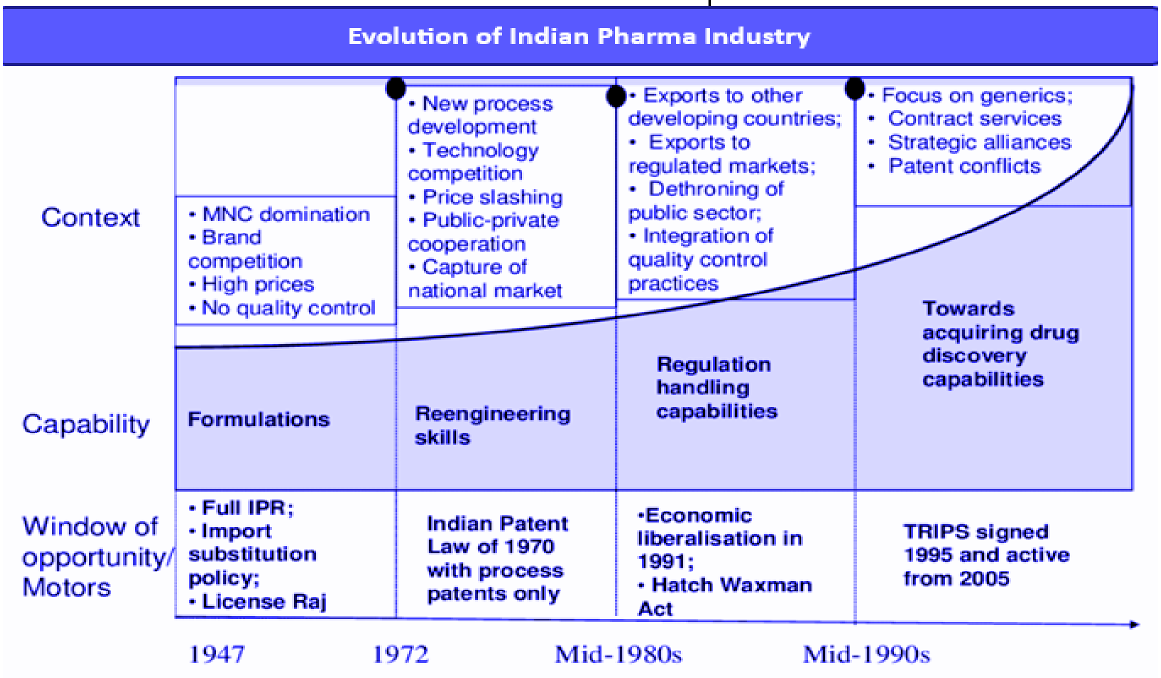
- **Collaboration:** To navigate ESG challenges, India's textile sector should intensify collaboration between government, industry, and financial institutions.
- **Uniform ESG standards**: Emphasis on MSME support, streamlined certification processes, and uniform ESG standards can mitigate compliance hurdles.
- **Education campaigns**: Industry-wide education campaigns can enhance domestic consumer awareness of sustainable practices, fostering a market for recycled materials.
- **Diplomatic efforts:** The diplomatic efforts to align with EU exemptions for MSMEs in ESG norms and the creation of specific Harmonized System codes for sustainable exports would further fortify India's position as a global textile supplier.

- **Strategic & unified approach**: A unified approach will enable the sector to thrive amid evolving global sustainability expectations.

Reputation of India's Pharma Industry

News Excerpt:

Recently few countries have accused **'Made in India'** medicines of causing deaths, blindness and severe injury to their citizens. Also, Indian doctors protested against a new rule introduced by the **National Medical Commission (NMC)** mandating that all doctors write prescriptions with only the generic names of drugs, not brand names.

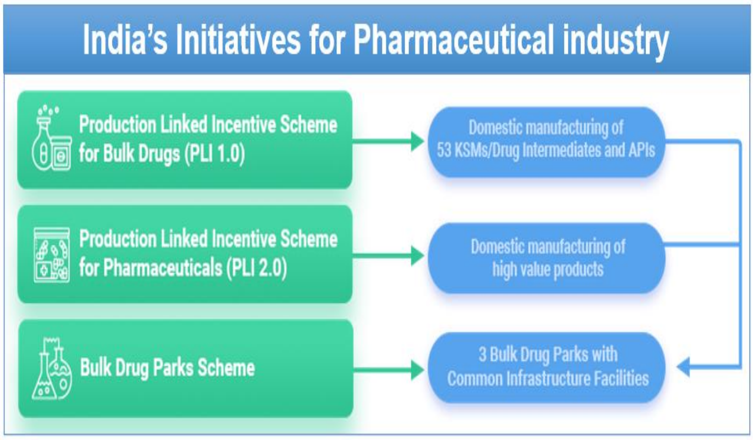


Concern Regarding Quality of Made in India Medicine:

- **Quality Control and Testing:** The instances of adulteration leading to fatalities in India and other countries suggest a systemic failure in quality control measures. **The need for rigorous inspections, adequate testing equipment, and qualified personnel within manufacturing facilities is crucial.** While mandating testing for exported cough syrups is a step, it's insufficient.
  - The focus should also be on ensuring domestic products meet the same standards to safeguard Indian patients.
- **Doctor Opposition to Generic Prescriptions:** The lack of faith among doctors in prescribing only generic names stems from concerns about therapeutic equivalence and quality variations among generics.
  - This distrust affects patient access to competitively priced medicines. Instead of addressing these concerns, the government paused the new rule, missing an opportunity to educate and engage doctors and the public on generics' benefits and quality assurances.
- **Regulatory Framework and Legislation: The Drugs, Medical Devices, and Cosmetics Bill of 2023** seems to overlook fundamental issues highlighted by expert committees.
  - The absence of a centralized regulator and a proposal for an independent, skilled regulatory setup remain unaddressed.
  - Harmonizing regulations across states and empowering a competent central regulator could enhance oversight and consistency in drug quality.
- **Reputation and Global Impact:** Ineffective regulation impacts public health and damages the reputation of India's pharmaceutical industry globally.
  - This has led to repercussions, such as the US contemplating onshoring pharmaceutical manufacturing and African nations aiming to reduce dependence on Indian imports.
  - This threatens India's position as the "pharmacy to the developing world."

Addressing the challenges:

- **Enhanced Oversight:** Invest in robust inspection processes, quality control measures, and training to ensure compliance with stringent standards for both domestic and export markets.
- **Education and Engagement:** Communicate transparently with doctors and the public regarding generic medicines' benefits and quality assurances, fostering trust in domestically produced drugs.
- **Regulatory Reforms:** Revise legislation to establish a centralized regulator with specialized skills and resources to standardize and enforce drug quality nationwide.
- **Global Reputation Management:** Prioritize rebuilding trust by actively addressing quality concerns and complying with international standards to maintain India's status as a reliable pharmaceutical supplier.



Way Forward:

The concerns raised regarding the quality of 'Made in India' medicines, both domestically and in international markets, highlight critical issues within the pharmaceutical industry that need urgent attention and resolution. The Indian government must prioritize a holistic approach, considering public health and the industry's global standing. **Addressing structural issues, enhancing regulatory measures, and fostering trust in 'Made in India' medicines** are pivotal for a sustainable and reputable pharmaceutical industry.

SERVICES

Online Gaming Platforms

News Excerpt

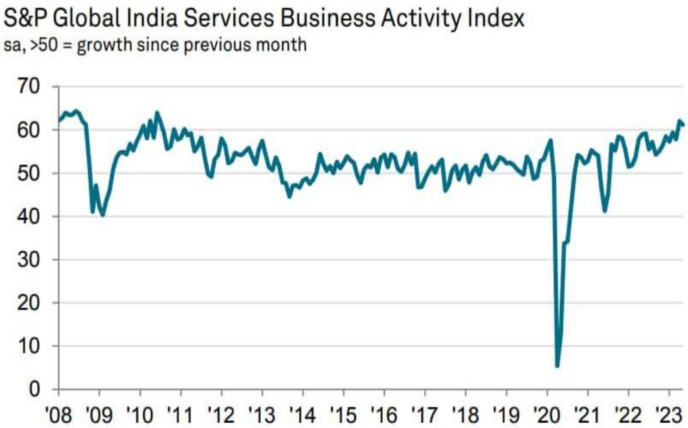
Recently, the Central Board of Direct Taxes (CBDT) has implemented fresh tax regulations for online gaming platforms. The objective of these regulations is to provide clarity and establish clear guidelines regarding Tax Deducted at Source (TDS) on earnings derived from online gaming.

About CBDT

It operates as a statutory body under the Central Board of Revenue Act, 1963.
It falls within the Department of Revenue under the Ministry of Finance.
Its role involves contributing to policy and planning related to direct taxes in India, as well as overseeing the implementation of direct tax laws through the Income Tax Department.
Direct taxes encompass income tax, corporation tax, and other similar taxes.

Key Highlights of the New Rules

- **No TDS on Winnings up to Rs 100:**
  - Online gaming platforms are not required to deduct tax at the source if the net winning amount is below Rs 100.
  - This exemption provides relief for players with smaller winnings.
- **Taxable Deposits:**
  - Bonus, referral bonus, and incentives provided by online gaming companies are considered taxable deposits.
  - These deposits are subject to tax under Rule 133 of the Income-tax Act.
- **Calculation of Net Winnings:**
  - Net winnings in the online gaming industry are calculated separately for each user account.
  - The total amount across all user accounts associated with an individual is considered for deposit, withdrawal, or balance calculation.
  - Transfers between user accounts under the same online intermediary, belonging to the same user, are not treated as withdrawals or deposits.
  - Withdrawals or deposits between one user's account and another user's account are considered as withdrawals.
- **Valuation of Winnings:**
  - The fair market value is used to determine the valuation of winnings in kind, except when the online gaming intermediary has purchased the winnings before providing them to the user.



  - If the online gaming intermediary manufactures items as winnings, the fair market value is considered.
- **TDS Provision for Online Gaming:**
  - Section 194BA was introduced in the Income-tax Act, 1961, by the Finance Act 2023 to regulate online gaming transactions.
  - Online gaming platforms are required to deduct income tax at a rate of 30% on net winnings from a user's account.

- TDS is deducted at the time of withdrawal and at the end of the financial year.

Tax Regulations related to Digital Assets

In the Union Budget 2022, the Government of India has made the decision to establish regulations for transactions involving Virtual Digital Assets.

Proposed amendments to the Income-tax Act, 1961 aim to regulate investments in cryptocurrencies, NFTs, and other virtual digital assets.

Income derived from digital assets will be subject to a 30% tax rate.

Transactions involving virtual digital assets will incur a 1% tax deduction at source.

Gifts of virtual digital assets will also be liable for taxation.

No deductions or exemptions are permitted, and losses from the transfer of such assets cannot be offset against any other income.

Impact of the Move

- Online gamers may experience a greater tax load.
- Professional gamers and streamers could face the consequences, such as potentially higher taxes and the need for more intricate financial management.
- Esports organizations might need to modify their financial models and take into account the tax considerations associated with their revenue streams.
- The financial consequences could lead to a decrease in gaming income.
- Meeting the requirements and comprehending the new tax regulations could pose challenges in terms of compliance.
- There is a chance that players may move to jurisdictions with more favourable tax regulations.

India's Purchasing Managers' Index (PMI)

News Excerpt

According to the latest survey of the S&P Global India services India's service sector surged to a **13-year high in July amid buoyant demand.**

About:

- India's economy has historically depended heavily on the service sector, which generates **more than half of its GDP**.
- In July, the S&P Global India services Purchasing Managers' Index (PMI) jumped to **62.3**, which is higher than **June's 58.5** and **May's 61.2.**
- A poll conducted by **Reuters** had predicted the PMI to be around **58.0 for July**.
- This score is the highest since June **2010**.
- The continuous expansion of the service sector, evident by the PMI consistently staying above the **50-mark since August 2021,** showcases its resilience and importance in sustaining economic growth.

What is PMI and How is it Calculated?

- The Purchasing Managers' Index (PMI) is a key economic indicator that gives us insights into the **health of the Manufacturing and Service sector**.
- The S&P Global India Services PMI, is compiled by **S&P Global using responses from approximately 400 service sector companies.**
- These sectors encompass **consumer (excluding retail), transport, information, communication, finance, insurance, real estate, and business services.**
- The panel is categorized by sector and company **workforce size, relative to GDP contributions.**
- These surveys ask about various factors like **new orders, Employment Environment, supplier deliveries, Inventory Level, Price, Production and other factors affecting economy.**
- The data collected helps gauge whether these factors are **better or worse** than the previous month.

Meaning of PMI Numbers

- The PMI is a number that ranges from **0 to 100**. If it's **above 50, it indicates the manufacturing sector is growing (expanding),** while **below 50 suggests a contraction.**
- The further the number is from 50, the greater the extent of the growth. For instance, a PMI of 60 signifies more robust expansion than a PMI of 52.
- **Comparing current month's PMI with previous months helps understand growth rate**, with higher PMI indicating faster growth and lower PMI indicating slower growth.

Significance of PMI

- PMI is a **widely followed indicator** that provides valuable insights into overall economic health and specifically the manufacturing sector.

- It is a good way to **anticipate economic booms and downturns.**
- Monthly PMI provides **valuable insights for business owners, managers, investors, and traders, enabling informed decisions** and understanding of **economic trends.**
- **Central banks (RBI)** even use PMI **to make decisions about interest rates.**
- It's released early in the month and acts as a **leading indicator for economic activity.**
- It arrives before official data on industrial output, core sector manufacturing, and GDP growth.

Impact on Different Aspects

PMI isn't just for economists and banks. It influences various other areas:

  - **Equity Market:** PMI affects stock market movements.
  - **Bond and Currency Markets:** It also has an impact on bond and currency markets.
  - **Business Decisions:** For business owners, it aids decisions regarding raw material sourcing and inventory management.
  - **Job Seekers:** Job seekers can gain insights into whether job opportunities are increasing or decreasing.

Conclusion

- The PMI is an effective instrument for **analyzing economic trends, particularly those affecting the Service industry.**
- It is essential for many stakeholders due of its **broad influence and timely distribution.**
- So, keeping an eye on the PMI can give **useful information and aid in decision-making** in the fast-paced world of business and finance.

Special Economic Zones (Fifth Amendment) Rules, 2023

News Excerpt:

The Ministry of Commerce and Industry has amended the **Special Economic Zones (SEZ) Rules, 2006**.

About the Amendments:

- The amendment permits the **demarcation** of a portion of the built-up area within an SEZ unit on a **floor-by-floor basis** as a non-processing area.
- This area may be used for setting up and operation of businesses with a focus on Information Technology (IT) and IT-enabled services, and at such terms and conditions as may be specified by the Board of Approval.
- A non-processing area shall consist of a **complete floor.**
- A part of a floor cannot be demarcated as a non-processing area.
- **Demarcation** of a non-processing area shall not be allowed if it decreases the processing area to less than 50% of the total area or less than the specified area.
- However, repayment of tax concessions associated with the non-processing area will be required.
- The repayment of tax benefits will be determined by calculating the benefits provided for the processing area of the SEZ.

About Processing and Non-Processing Area:

Processing Area	Non- Processing Area
The processing area in a SEZ is the designated space where units are established for the primary purpose of manufacturing goods or rendering services that contribute directly to the economic activity and objectives of the SEZ.	The non-processing area in an SEZ refers to the space where **supporting infrastructure is developed**. Activities in the non-processing area are not directly involved in the core business operations of manufacturing or service provision.

Significance of the Amendment:

- **Reduction of SEZ Vacancy**: The move is expected to reduce vacancies in SEZs, making them more appealing to businesses as after the phasing out of tax benefits, occupiers had become less inclined to stay in SEZs.
- **Addressing Compliance Concerns**: The amendment addresses these concerns and is expected to make SEZs more attractive for businesses with no excessive compliance concerns.
- **Positive Impact on REITs:** It is likely to have a positive impact on Real Estate Investment Trusts (REITs) with significant SEZ space in their portfolios, as the demand for such spaces may increase.
- **Harmonious co-existence**: It will pave the way for a harmonious co-existence of SEZ and non-SEZ entities within a unified campus, enhancing the ease of doing business for corporations, developers, and investors.
- **Boost economy and employment:** This progressive reform will aim to increase occupancy within IT SEZ Parks, in turn boosting economic activity and creating more jobs.
  - For Example, India's SEZ occupancy levels are currently around 80%, and this amendment will further elevate the attractiveness of our 20 million square feet of premium grade-A office spaces.

Special Economic Zones (SEZs):

- The Indian Special Economic Zone was structured with the establishment of the first Export Processing Zone (EPZ) at **Kandla in 1965.**
- The Special Economic Zones (SEZs) policy was launched in April 2000. The Special Economic Zones Act 2005 was

passed in May 2005, and the **SEZs Rules came into effect in 2006.**

- The SEZ Act 2005 provides for the establishment, development, and management of the SEZs for the promotion of exports and matters connected therewith or incidental thereto.
- SEZs in India are areas that offer **incentives to resident** businesses.
- SEZs typically offer **competitive infrastructure, duty-free exports, tax incentives**, and other measures designed to make it easier to conduct business.
- SEZs in India are a popular investment destination for many **multinationals**, particularly **exporters.**
- As of 2023, India has around **272 operational SEZs** with a combined employment of 2.8 million people. These SEZs generated approximately **US$133 billion in exports**, with service exports making up about 60% of this total.

Way Forward:

- The amendment to SEZ Rules represents a **progressive reform** aimed at enhancing the **operational flexibility** of IT and IT-enabled services SEZs.
- As it fulfils the **long pending industry demand,** it will foster economic growth and **attract diverse businesses** to these specialized zones.

The impact is not only on the spatial dynamics within SEZs but also on **the overall economic landscape**, with potential benefits for developers, businesses, and job seekers.

LEADS 2023 report

News Excerpt:

LEADS (Logistics Ease Across Different States) 2023 report, released by the Union Ministry of Commerce and Industry, recognizes the achievements of 11 states and two union territories in enhancing logistics ease.

Logistics Performance Index (LPI):

- LEADS was conceived in 2018 on lines of the **Logistics Performance Index (LPI)** of the World Bank but has evolved over time to suit the Indian context better.

- This adaptation ensures that the assessment aligns with the unique challenges and dynamics of the Indian logistics landscape.
- Improvement of India's Logistics Performance Index (LPI) rank by **6 places to 38th position in 2023** is a reflection of India's efforts.
- The 5th edition of the LEADS annual exercise - the LEADS 2023 report, provides insights into the improvement of logistics performance at the State/UT level.
- It highlights an **enhanced overall stakeholder perception and impact of various reforms** across States and UTs.

Categorization of LEADS initiative:

- LEADS initiative categorizes States based on their geographic demographics into **4 categories: Landlocked, coastal, northeastern regions, and Union Territories.**
- For grading each of these categories into three categories:
- The "**Achievers**" are States that have shown exemplary logistics ecosystems with exceptional infrastructure and transparent regulatory processes.
- The "**Fast Movers**" are States that are moving towards becoming Achievers by notifying progressive policy and legislative initiatives along with new infrastructure projects.
- The **"Aspirers"** – States that have initiated their journey towards logistics ease and excellence by adopting

national best practices to improve further their contribution towards India's emerging position as a global manufacturing and logistics hub.

Performance Highlights from LEADS 2023:

	Achievers	Fast Movers	Aspirers
Coastal Group	Andhra Pradesh, Gujarat, Karnataka, Tamil Nadu	Kerala, Maharashtra	Goa, Odisha, West Bengal
Landlocked Group	Haryana, Punjab, Telangana, Uttar Pradesh	Madhya Pradesh, Rajasthan, Uttarakhand	Bihar, Chhattisgarh, Himachal Pradesh, Jharkhand
North-East Group	Assam, Sikkim, Tripura	Arunachal Pradesh, Nagaland	Manipur, Meghalaya, Mizoram
Union Territories	Chandigarh, Delhi	Andaman & Nicobar, Lakshadweep, Puducherry	Daman & Diu/ Dadra & Nagar Haveli, Jammu & Kashmir, Ladakh

Significance of LEADS initiatives:

Benchmarking Logistics Performance:

- LEADS serves as a tool to benchmark and assess the logistics performance of different states and Union Territories (UTs) in India.
- It provides a comprehensive overview of the logistics ecosystem, focusing on key pillars such as **Logistics Infrastructure, Logistics Services, and Operating and Regulatory Environment.**

Related: India's logistics costs, according to a **joint report by the National Council of Applied Economic Research (NCAER) and the Department for Promotion of Industry and Internal Trade (DPIIT)**, decreased to 7.8-8.9% of GDP in the fiscal year 2021-22.

Summary of the report:

- A similar dip occurred during 2014-15 to 2016-17, with costs dropping **from 8.3-9.4% to 7.8-8.8%**.
- **Faster growth in nominal GDP** compared to logistic costs **and a fall in fuel prices** contributed to the reduction from 2014-15 to 2016-17.
- The report emphasizes the significant investments in **physical and digital infrastructure** in India, creating an enabling environment for data-based planning and policy-making.
- NCAER, on behalf of the government, calculates these figures, contributing to the development of a framework for credible logistics cost estimates. The report aligns with India's **National Logistics Policy**, aiming to reduce logistics costs in the country.
- The recommended hybrid approach for estimating logistics costs involves primary and secondary survey data coupled with real-time Big Data analysis.

Way Forward:

LEADS is a multifaceted initiative that assesses and ranks logistics performance, fostering improvements and healthy competition. The latest report highlights positive shifts, offering actionable insights for policymakers and stakeholders and empowering states with region-specific information.

Tax roadblock to tourism drive

News Excerpt:

Despite its diverse attractions, India faces obstacles in becoming the first choice for foreign tourists.

India's Tourism Sector:

- **Potential of India's Tourism Sector**: The country boasts a rich tapestry of attractions, including iconic landmarks like the Taj Mahal, historical sites, pilgrimage destinations, attractive beaches, and diverse wildlife sanctuaries.
- **Economic impact of tourism**: Travel and tourism (T&T) was projected to contribute **$209.7 billion** to the Indian economy in 2023, a little less than the **$212.8 billion** in 2019, according to the 2023 Economic Impact Research report by the World Travel & Tourism Council.
- **Challenges Post-Covid**: The sector was projected to contribute **6%** to the GDP in 2023, 1% point less than in 2019. It shows that the sector did not recover fully from the Covid-19 period, even in 2023.
    - And yet, it was forecasted to create more than **1.6 million jobs in 2023** to reach almost **39 million in employment** and recover almost all the jobs lost due to the pandemic.
- **Prospects of tourism recovery**: India's tourism economy will regain its pre-pandemic expenditure by 2024-25 and is likely to grow 4 times the pre-pandemic level by 2028-29, with domestic demand driving growth.

Challenges for India in becoming the preferred destination for foreign tourists

Taxation Hurdles	Lack of International Promotion
Comparatively higher and persistent tax rates imposed on the tourism sector, such as GST on hotels, cab fares, etc. The **cascading effect of GST** and the impact of **Place of Supply (PoS) rules** have led to increased costs for tour operators, making Indian tourism packages more expensive.	**Limited promotional activities,** especially in comparison to neighbouring countries. In Southeast Asian countries like **Malaysia, Thailand, and Indonesia,** tourism is heavily promoted.

Other challenges to India's tourism sector:

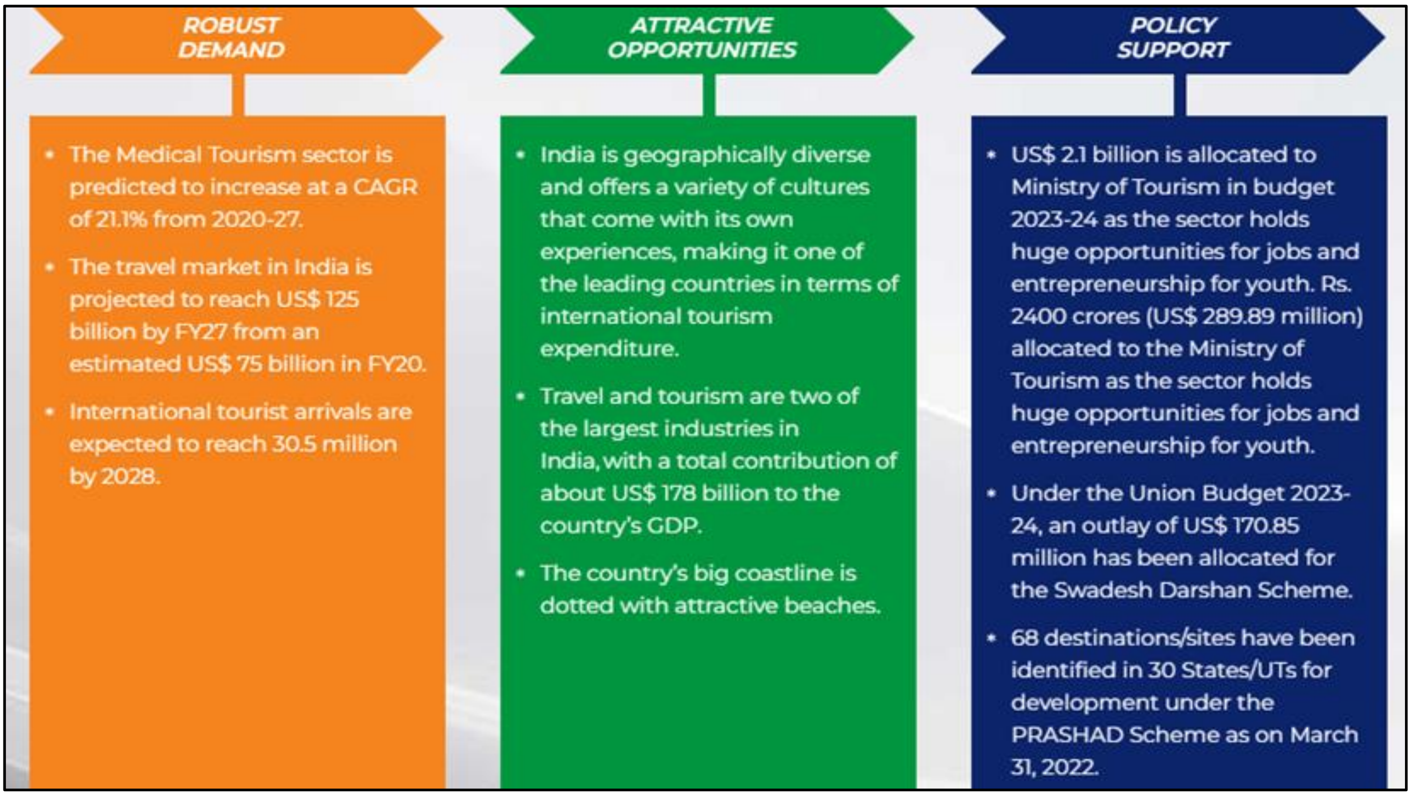
- **Inadequate Infrastructure**: This includes hotels, connectivity with other cities, health facilities, transportation, etc. The absence of visitor-friendly infrastructure, information centres, etc., further complicates this problem.
- **Safety and Security**: The Safety & Security of tourists are the most important factor governing whether people will come to that destination or not. Attacks on foreign tourists, especially women tourists, have raised this question.
- **Lack of Skilled Manpower**: This scarcity hampers the sector's growth potential and adversely affects the quality of services extended to tourists. Furthermore, the prevalent language barrier increases this issue, limiting effective communication and diminishing the overall experience for both visitors and service providers.
- **Inaccessibility**: Many tourist destinations in the country are not accessible to the poor, women and the elderly because of the high cost of transportation.
- **Sustainability Imperatives**: A global shift towards sustainable and responsible tourism practices necessitates a critical reassessment of existing models. The delicate task is balancing economic growth with environmental and cultural preservation. This challenge demands concerted efforts from both the public and private sectors.
- **Digital Divide**: The tourism sector also suffers from a digital divide where larger enterprises seamlessly adopt digital platforms, leaving smaller businesses struggling to keep pace. While efforts are in place to address this disparity for holistic growth, the digital divide currently hinders seamless functioning across the country.

Government Initiatives to promote tourism:

- **Swadesh Darshan Scheme:** The Ministry of Tourism launched its flagship scheme of 'Swadesh Darshan' in 2014-15 and provided financial assistance to the State Governments/ UTs Administration/Central Agencies to develop tourism infrastructure at various destinations.
- **PRASAD scheme**: The Government of India launched the PRASAD scheme in 2014-2015 under the Ministry of Tourism. The full form of the PRASAD scheme is 'Pilgrimage Rejuvenation and Spiritual Augmentation Drive'. This scheme focuses on developing and identifying pilgrimage sites across India to enrich the religious tourism experience.
- **Draft National Tourism Policy**: The Ministry of Tourism drafted a National Tourism Policy based on various recent developments. The policy aims to improve the framework conditions for tourism development in the country, support tourism industries, strengthen tourism support functions, and develop tourism sub-sectors.
- **Dekho Apna Desh Initiative:** The 'Dekho Apna Desh' scheme aims to encourage people to witness and experience India's rich heritage and vivid culture. The scheme aims to increase India's domestic tourism, and under this plan, around 50 destinations in the country will be developed and promoted to attract tourists.

Suggested Measures to Boost India's Tourism:

- **GST Re-evaluation for Competitiveness**: A re-evaluation of the **Goods and Services Tax (GST)** rates



on the tourism sector is crucial. Lowering tax rates, especially on hotels and related services, will make Indian tourism packages more attractive and competitive.

- **International Marketing Initiatives**: Aggressive international marketing campaigns should be implemented like those executed by competing destinations.
- **For example**- India can take cues from Thai-land, Vietnam and Malaysia, which offer **30-day free visas** to boost foot-fall. **Active Promotion by Tourism Ministry**: The tourism ministry must actively promote India as a global travel hotspot, leveraging iconic landmarks and diverse attractions.
- **Incentives for Digital Payments**: Considering incentives such as GST refunds for tourists making digital payments can further enhance the appeal.
- **Boosting MICE Business:** To boost international **meetings, incentives, conferences, and exhibitions (MICE)**, leveraging ongoing government projects in connectivity, infrastructure, and the benefits of India's **G20 presidency** is essential.
- **Tailored Incentives for Travellers:** Tailoring incentives for both national and global travellers- will play a pivotal role in encouraging them to explore India, contributing significantly to increased investment, employment, and the overall growth of the tourism sector.

INFRASTRUCTURE

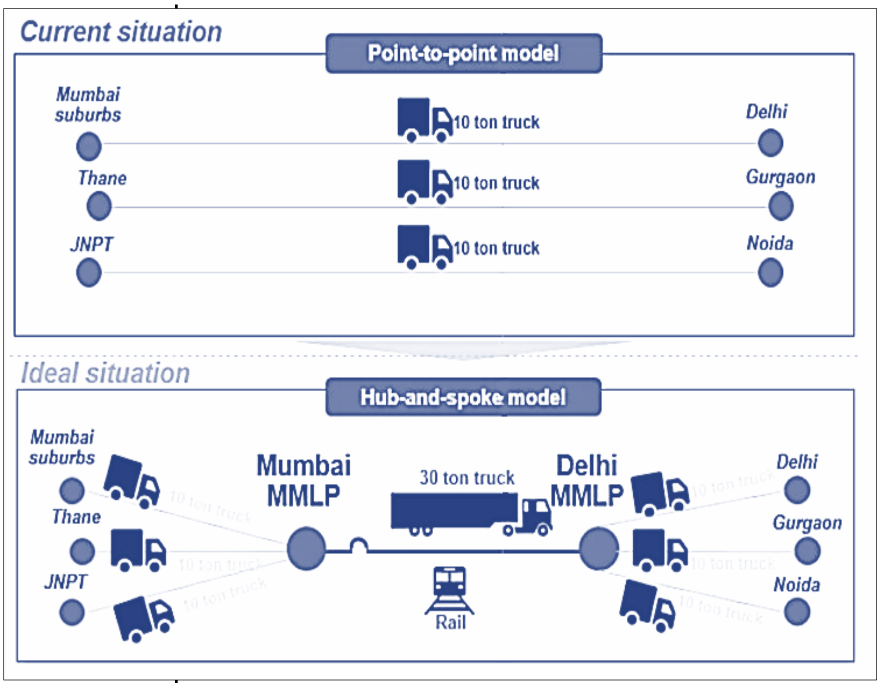
Multi-Modal Logistics Parks (MMLPs)

News Excerpt

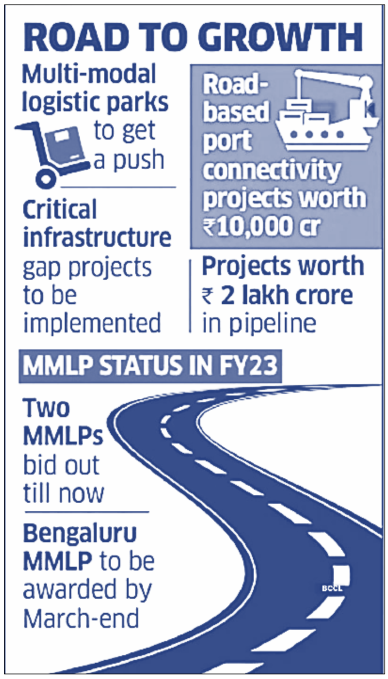
The government of India is planning to bid out 6-7 multi-modal logistics parks in the next financial year (2023-2024). According to reports, parks in Chennai and Indore have been awarded till now and the third in Bengaluru is expected by the end of March 2023 The parks currently being bid out are ranking high in the Logistics Efficiency Enhancement Programme (LEEP) index due to their access to commercial hubs.

Understanding MMLPs

- MMLPs are based on Hub & Spoke model they tend to integrate multiple modes of freight transport through highways, railways & inland waterways.
- They are envisaged to be developed as state-of-the-art large-scale warehousing facilities for different types of commodities.
- MMLPs are the one-stop solution for all services related to cargo movement like warehousing, customs clearance, parking, maintenance of trucks etc.
- There are various facilities available in the MMLPs such as:



    - Freight aggregation and distribution
    - Multimodal freight transport
    - Integrated storage and warehousing,
    - Information technology support
    - Value-added services like Cold storage and yard facility
    - Custom clearance house and workshops
- Focus areas under the MMLPs are:
    - Technology-driven-state-of-the-art freight management system.
    - Value-added services range from packaging to labelling.
    - Mechanised material handling and related value-added services



- **Features of MMLPs in India**:
    - MMLPs sites in India are strategically placed and act as a focal point of logistics in the region.
    - Act as an example of cooperative federalism as implementing agencies is Special Purpose Vehicles formed by central and state agencies.

- Developed under Public-Private-Partnership (PPP) based on a Design, Build, Finance, Operate, and Transfer (DBFOT) model.
- Developed under various parent programs like PM Gati Shakti National Master Plan and Bharat Mala Pariyojana etc.
- Carries huge capacities and is expected to cater for the logistic horizon for multiple decades.

- **Advantages of MMLPs:**
    - Improved efficiency of the logistics sector lowering overall freight costs, and warehousing costs and an improvement the tracking of consignments etc.
    - Rail freight movement lowers the CO_2 emissions on a per tonne per km basis. Hence, MMLPs can aid in India's objective of a 45 per cent reduction in carbon intensity by 2030.
    - Increased freight movement on higher-sized trucks and rail will lead to a 20 per cent reduction in freight vehicles catering to the demands.

Key Schemes for MMLPs development

Bharat Mala Pariyojana (BMP)

- BMP is an umbrella program for the highways under the aegis of the Ministry of Road Transport and Highways.
- The focus of the scheme is on:
    - Improvement of efficiency of present freight corridors by elimination of choke points.
    - Improved connectivity for the North East by leveraging synergies with Inland Waterways.
    - Use of technology & scientific planning, satellite mapping for project preparation and asset monitoring.
    - Seamless connectivity with neighbouring countries with Integrated Check Posts (ICPs)
    - Bridge the critical infrastructure gaps through effective interventions. These include:
        - Inter corridors and feeder routes
        - National corridor efficiency improvement
        - Border and international connectivity roads
        - Coastal and port connectivity roads
        - Greenfield expressways
    - Connect 550 districts in the country through national highway linkages.

PM Gati Shakti National Master Plan (PMGS-NMP)

- It provides multimodal connectivity infrastructure to various economic zones.
- There are seven engines under the scheme for economic transformation, seamless multimodal connectivity and logistics efficiency namely:
    - Railways
    - Roads
    - Ports
    - Waterways
    - Airports
    - Mass Transport
    - Logistics Infrastructure
- The vision of the scheme:
    - Include the infrastructure schemes of various Ministries and State Governments.
    - It will leverage technology extensively including spatial planning tools with ISRO imagery.
    - Creation of economic zones like textile clusters, pharmaceutical clusters, defence corridors, electronic parks, industrial corridors, fishing clusters, and agri zones to improve connectivity & make Indian businesses more competitive.
- Gati-Shakti as a digital platform will bring 16 Ministries including Railways and Roadways together for integrated planning and coordinated implementation of infrastructure connectivity projects.

NaBFID: Financing India's Infrastructure Development

News Excerpt:

The National Bank for Financing Infrastructure and Development (NaBFID) has lined up a **Rs 20,000 crore credit line** from multiple banks and is negotiating with multilateral agencies for long-term funds.

New hope for Infrastructure development:

- NaBFID closed the financial year 2024 with **Rs 1 trillion in sanctions,** disbursing Rs 36,000 crore by March and Rs 45,000 crore by the end of May.
- Its portfolio **predominantly consists of renewable and traditional power generation projects, followed by roads and railways.**
- The institution is also making inroads into telecom, city gas distribution, and power transmission.
- It aims to meet the **Finance Minister's ambitious target of a Rs 5 lakh crore lending portfolio within three years.** By leveraging the corpus of insurance, pension, and provident funds, along with market-raised funds, NaBFID is positioning itself as a comprehensive solution to India's infrastructure woes.
- As India's fastest-growing economy, the success of NaBFID could mark a **new chapter in infrastructure financing,** paving the way for sustained economic growth and development.

Mandate and Funding:

- Its mandate includes **financing infrastructure through loans and equity investments and developing long-term bond and derivatives markets.**
- Its paid-up capital stands at Rs 20,000 crore, supplemented by a Rs 5,000 crore grant.
- Plans are also underway **to raise external commercial borrowings in the last quarter of the current year.**

Providing solutions for the past problems in infra financing:

Historically, infrastructure financing in India has faced significant challenges.

- **Development Finance Institutions (DFIs) like Industrial Finance Corporation of India Ltd and ICICI faced severe asset-liability mismatches** in the 1990s when their access to cheap funds was cut off.
- The **Infrastructure Development Finance Company Ltd and India Infrastructure Finance Company Ltd** also struggled to sustain their operations.

  NaBFID is poised to succeed where others have failed.
- **The ecosystem for infrastructure financing is evolving,** and a new class of investors is emerging.
- **Infrastructure projects** are now viewed as a new asset class offering healthy returns, especially those that have been completed and are up for asset monetization.

Government push to infra investment:

- In October 2022, Union Minister for Road Transport and Highways marked the **retail entry through the listing of NHAI InvIT (National Highways Infra Trust) non-convertible debentures (NCDs).**
  - This move demonstrated the potential for retail investors to engage in infrastructure investments, with the NCDs being **oversubscribed almost seven times within seven hours of their opening.**
- Despite previous failures in project financing due to environmental clearances, stalled projects, and accumulating bad assets, the current ecosystem shows promise.
- The **Insolvency and Bankruptcy Code of 2016** and proactive government measures in allocating resources and clearing project hurdles have created a more resilient banking system.

NaBFID

- The National Bank for Financing Infrastructure and Development (NaBFID), **established by the 2021 Act of Parliament**, is a specialized **Development Finance Institution** dedicated to bolstering India's infrastructure sector.
- NaBFID aims to address the critical gaps in **long-term, non-recourse financing for infrastructure projects.**
- Its objectives include **developing robust bond and derivatives markets** and sustainably enhancing the nation's economy.
- By providing attractive financial instruments and channeling investments, NaBFID supports the growth of India's infrastructure, **ensuring a steady credit flow essential** for the sector's expansion and the country's economic progress.

MINING AND ENERGY

Issue of Illegal Mining

News Excerpt

The Indian Bureau of Mines (IBM) had flagged massive irregularities and corruption in the mining of Manganese ore in the state of Odisha.

Mining in India

Mining in Constitution

Under Schedule 7

List-I-Central List- Item 54-Central government own minerals within exclusive economic zone of India (EEZ)

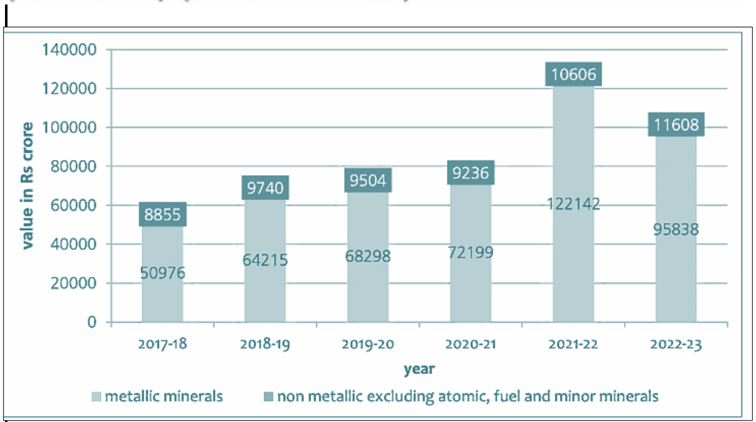
List-II-State List- Item 23- State government own the minerals located within their boundaries.

- India is endowed with huge mineral resources of fuel, metallic and non-metallic minerals including minor minerals.
- The mining sector is an important segment of the Indian economy. India produces as many as 95 minerals, which include 4 fuel, 10 metallic, 23 non-metallic, 3 atomic and 55 minor minerals (including building and other materials).

India's Position in the World in Terms of Production

Product	Position in World Production
Mica blocks and splitting	1st
Coal & Lignite; Barytes; Chromite	3rd
Iron Ore	4th
Bauxite; Manganese ore	6th
Aluminium	10th
Crude Steel	11th

Source: Government of India, Ministry of Commerce & Industry.



- The Indian mining industry is characterized by a large number of small operational mines. Most of the mines in India are in Madhya Pradesh followed by Gujarat, Karnataka, Odisha, Chhattisgarh, Andhra Pradesh, Rajasthan, Tamil Nadu, Maharashtra, Jharkhand and Telangana.

- Mining contributes about 2.5% of the Indian GDP and employs millions of people.

Illegal Mining in India

- It is the illegal extraction of minerals, ores and other valuable resources without necessary permits, licenses or approvals from the authorities. Such extraction also involves the violation of environmental, labour and other safety standards.
- Illegal mining is primarily of two types.
  - Mining without any approvals whether 13 major minerals notified by the Central government or minor minerals notified by state governments.
  - Mining is above the permissible limit set by the lease approved by the government.

Problems

- According to a report by the Union Environment Ministry, there are 1 lakh incidents of illegal mining in the country every year. Every month 8,833, every day 294 and every hour 12 incidents, some river and hill in the country is dug illegally.
- In 2016, 1,07,609 cases of illegal mining were reported. But out of these, FIR was registered only in 6,033 cases.
- There are several ill practices associated with the Mining sector, some of the issues include:
  - The passing of low-grade ores as high-grade ores.
  - Under-reporting of quantity mines
  - Evasion of payment of royalties and taxes.
  - Financial irregularities by the officials
  - non-use of modern technology and non-inspection of mining leases.
  - Violation of environmental clearances.
  - The boundary markings of the leased-out area are not clearly defined.
  - There is no clarity in the enforcement of law, implementation is a major problem.

Impact

- Loss to the state exchequer- Several states in India have lost crores of rupees as revenue. Illegal mining in Karnataka alone has caused a loss of more than Rs 50,000 crore to the exchequer.
- Environmental degradation- Illegal mining can cause deforestation, soil erosion and water pollution and impacts the habitats for wildlife thereby causing ecological damages.
- Heavy metal pollution: The clear disregard for the safety of illegal mining leads to heavy metal pollutant contamination. Chemicals like mercury and cyanide pose serious risks to public health and nearby communities.
- Human Rights Violations: Illegal mining had resulted in the loss of life, including police officers. It is also associated with forced labour, child labour and the exploitation of large populations.

Measures Against Illegal Mining

- **Legal Measures:**
  - Section 23C of Mines and Minerals (Development and Regulation) Act 1957, empowers the State Governments to frame rules to prevent illegal mining.
  - The State Government submits quarterly returns on the prevention of illegal mining to the Indian Bureau of Mines. These returns contain details such as the number of cases detected and action taken thereon etc.
- **Surveillance:**
  - The Indian Bureau of Mines (IBM) has set up two laboratories to carry out the work for monitoring mining activities using GIS and Remote sensing software.
  - Mineral Conservation and Development Rules 2017 mandates the mineral concession holders to submit drone images & satellite imageries to the Indian Bureau of Mines. It allows IBM to monitor the mining activities in the country remotely without much human intervention.
  - Mining Surveillance System (MSS) is a satellite-based monitoring system which aims to establish a regime of responsive mineral administration by curbing instances of illegal mining activity through automatic remote sensing detection technology.

Other measures need to be taken

- There is a need to develop close collaboration between mining companies and local communities to ensure mining activities are sustainable.
- The promotion of sustainable mining practices could result in the reduction of demand from the illegal sector. A CSR-type of responsibility can be placed on the mining companies.
- There is a need to effectively utilise the unused fund lying with the District Mineral Foundation (DMF).
- There is a need to create awareness among the local communities and society about the harmful effects of illegal mining which can help in reporting illegal mining activities to the authorities.

INNOVATION AND ENTREPRENEURSHIP

Deceptive Advertising Practices: Menace of 'dark patterns' in e-Market

News Excerpt

The Department of Consumer Affairs and the Advertising Standards Council of India (ASCI) recently held a joint consultation with stakeholders on the menace of 'dark patterns'. The ASCI has come up with guidelines for the same, with the central government also working towards norms against 'dark patterns'.

About Dark patterns:

- The dark pattern phrase was firstly introduced by Harry Brignull as a user experience researcher in the U.K. in 2010 to characterise deceptive strategies used to trick clients.
- Dark pattern refers to a type of design or user interface technique intentionally designed to manipulate or deceive users into making certain choices or performing specific actions that may not be in the best interests of consumers.

Types of Dark patterns

False Urgency: This tactic creates a sense of urgency or scarcity to pressure consumers into making a purchase or taking an action.

Basket Sneaking: Websites or apps use dark patterns to add additional products or services to the shopping cart without user consent.

Subscription Traps: This tactic makes it easy for consumers to sign up for a service but difficult for them to cancel it, often by hiding the cancellation option or requiring multiple steps.

Confirm Shaming: It involves guilt as a way to make consumers adhere. It criticizes or attack consumers for not conforming to a particular belief or viewpoint.

Forced Action: This involves forcing consumers into taking an action they may not want to take, such as signing up for a service in order to access content.

Nagging: It refers to persistent, repetitive and annoyingly constant criticism, complaints, requests for action.

Interface Interference: This tactic involves making it difficult for consumers to take certain actions, such as cancelling a subscription or deleting an account.

Bait and Switch: This involves advertising one product or service but delivering another, often of lower quality.

Hidden Costs: This tactic involves hiding additional costs from consumers until they are already committed to making a purchase.

Disguised Ads: Disguised ads are advertisements that are designed to look like other types of content, such as news articles or user-generated content.

Why is it deceptive?

- It is a deceptive method **employed to influence user behaviour** in a way that benefits the company implementing it.
- For example, a common dark pattern is the "sneak into basket" technique used on e-commerce websites.

How is it deceptive?

- When a user adds an item to their shopping cart, a dark pattern may be employed by automatically adding additional items to the cart without the user's explicit consent or explicit notification.
- It may mislead the user into purchasing more items than they intended, and potentially increase the company's sales.
- Similarly, many of us have been faced with pop-up requests for our personal information, where we find it difficult to locate the 'decline' link.
- If customers wish to remain on a website, it is extremely challenging for them to decline the acquisition of their personal data as the option to opt out is very finely placed.
- By using such dark copatterns, digital platforms violate the consumer's right to full transparency of the services they use and control over their browsing experience.

Legal status of Dark patterns

- This aspect of dark matter is very complex as differentiating between manipulation and fraudulent intent can be challenging. Presently there is no specific regulations against or to prevent dark patterns in most countries.
- However, individuals who have experienced harm as a result of dark patterns may potentially seek compensation for damages.
- In 2022, Google and Facebook faced repercussions due to their cookie banners. These companies were charged of violating EU and French regulations by making it more difficult for users to reject cookies as compared to accepting them.

Global regulation on dark patterns

- Regulators in other jurisdictions such as European Union, USA and UK have taken action against dark patterns involving unfair and deceptive practices in online interfaces which were found to be detrimental to consumers. The activities which the platforms were observed to be indulging include: -
  - Non-consensual enrolment in subscription programs (USA)
  - Pressure selling using misleading countdown clock (UK)
  - Secretly saving credit card information and charging users without consent (USA)
  - Putting in place a cancellation process designed to deter consumers from opting out of subscription (Norway).

- Guidelines from the European Data Protection Board were released in 2022 and offered designers and users of social media platforms practical guidance on how to spot and avoid so-called "dark patterns" in social media interfaces that are in violation of General Data Protection Regulation (GDPR) laws.

Benefits of dark patterns to websites

Depending upon the type of website or app, dark patterns can benefit businesses in several ways.

- This benefits the business, and since they hide the appropriate options for the customer or end-user, the user has to go ahead with the default or highlighted options, and in case there is no other way, the said service uses up.
  - Thus, it is often used in marketing, however, it isn't a good practice at all.
- Dark pattern is created with the sole intention to show only those things in the UI or highlight those items in the first place that is profitable to the business in some way or the other.

Challenges with dark patterns

- Dark patterns pose a threat because of their impact on user experience and their potential to exploit users financially and in terms of data privacy.
  - Social media companies and tech giants such as Facebook, Apple, Amazon, Skype, LinkedIn, Microsoft, and Google are known to use dark patterns.
- Another example of Dark Patterns is the challenge to disable unwanted sponsored messages from influencers. The process is complex, requiring familiarity with platform controls that many users may not have.
- Dark patterns distort consumer autonomy using a design architecture which tricks or influences consumers to make choices not in their best interest.

Govt. Initiatives to stop dark pattern

The Department of Consumer Affairs and the ASCI have identified the issue and recently taken certain steps to handle the same.

Implementing "dark patterns" in its user interface to violate "consumer rights" is defined as "unfair trade practices" as per Section 2(9) of the Consumer Protection Act, 2019. However, with the growing use of e- platforms, a robust legal mechanism is a demand.

Consumers can report instances of 'dark patterns' or provide feedback and report such manipulative online practices on the National Consumer Helpline (NCH) by calling '1915' or through Whatsapp on 8800001915.

Way Forward

- The Indian government should also amend existing laws to specifically address dark patterns. To do this, new rules aimed against deceptive design practices may need to be introduced along with updated consumer protection laws and data protection legislation.
- With growing penetration of internet and rising smartphone usage in India, consumers are increasingly choosing e-commerce as the preferred mode of shopping. In such a scenario, it is essential that online platforms do not indulge in unfair trade practices by incorporating dark patterns which result in a harmful or undesirable outcome for the consumer.

IMF's view on cryptocurrency

News Excerpt

Recently, the International Monetary Fund (IMF) issued a statement on the use of cryptocurrency in the Latin America and Caribbean market, and about the rising interest in blockchain-based central bank digital currencies (CBDCs).

About Cryptocurrency

- A cryptocurrency is a medium of exchange, such as the rupee or the US dollar, but is digital in format and uses encryption techniques to both control the creation of monetary units and to verify the exchange of money.
- Bitcoin is considered to be the world's best-known cryptocurrency and is the largest in the world according to market capitalisation, followed by Ethereum.

Bitcoin and the thousands of cryptocurrencies are essentially codes recorded on a blockchain that gets longer and longer as more people use them.

the crypto market:

It is expected to grow at a significant Compound Annual Growth Rate (**CAGR) of over 9.2%** over the forecast period of 2023-2028.

Legality of cryptocurrencies in India:

Neither the government nor the central bank, the Reserve Bank of India (RBI), has recognized cryptocurrencies.In the recent **Union Budget 2022**, the government of India announced a **30% tax on gains from cryptocurrencies and a 1% tax deducted at source**.

Central bank digital currencies (CBDCs)

- Central Bank Digital Currency (CBDC) is a digital form of currency notes issued by a central bank.

- While most central banks across the globe are exploring the issuance of CBDC, the key motivations for its issuance are specific to each country's unique requirements.
- It is the digital form of a country's fiat currency.
- The Bahamas in the Caribbean was one of the first countries to officially introduce its Sand Dollar CBDC.

Crypto Ecosystem

Operational, cyber, and governance risks

Integrity (market and AML/CFT)

Data availability/reliability

Challenges from cross-border activities

Difference between cryptocurrency and CBDCs

Cryptocurrencies and CBDCs are both blockchain-based digital currencies. But while cryptocurrencies are generally run by private companies or individuals, a CBDC is controlled and tracked by a country's central bank and corresponds to that country's fiat currency.

Bitcoin's price may vary by hundreds or even thousands of dollars in a short period of time, and its founder is not clear. On the other hand, a CBDC such as the eNaira, issued by the Central Bank of Nigeria, would (ideally) be worth as much as its physical counterpart.

While investors often buy large quantities of Bitcoin or other cryptocurrencies and hold them in the hope of making a profit, this doesn't make sense in the case of CBDCs as they are not meant to be investment vehicles.

Crypto Economy's effect on Latin America

- Countries like Argentina, Chile, and Columbia have experienced devaluation of their currency against the U.S. dollar. To preserve the value of their savings, some residents have explored converting their funds to U.S. dollars.
- However, there are legal restrictions controlling this. Others have chosen to convert their assets to stablecoins - cryptocurrencies designed to reflect the value of fiat currencies such as the U.S dollar.

IMF reaction to El Salvador's Bitcoin adoption

The IMF specified that it was against El Salvador's move due to fiscal risks and consumer protection issues.

IMF's executive directors urged the authorities to narrow the scope of the Bitcoin law by removing Bitcoin's legal tender status.

It was also told to El Salvador that its adoption of Bitcoin might affect its application for a loan of $1.3 billion.

This is why IMF's latest blog post on crypto and CBDC use in Latin America and the Caribbean came as a surprise to many.

- Brazil, Argentina, Colombia, and Ecuador are among the top 20 in Chainalysis' 2022 Global Crypto Adoption Index.

Stablecoin is a type of cryptocurrency where the value of the digital asset is supposed to be pegged to a reference asset, which is either fiat money, exchange-traded commodities (such as precious metals or industrial metals), or another cryptocurrency.

Impact of IMF's New approach

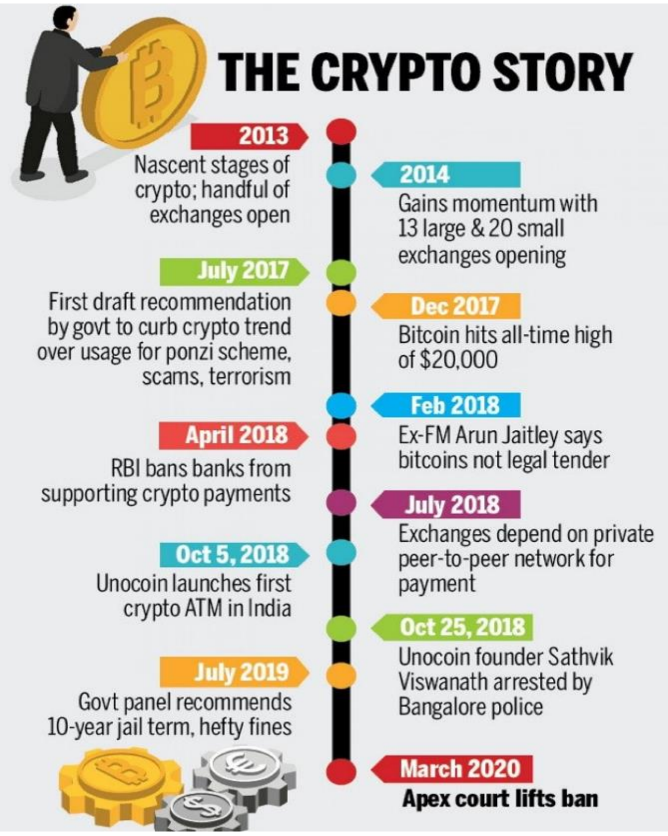
Positive

- Weak central bank credibility and a vulnerable banking system can trigger asset substitution as domestic residents seek a safer store of value. Dollarization pressures are a persistent risk for several emerging market and developing economies.
- The crypto ecosystem can help domestic residents convert some of the headwinds of traditional dollarization—such as exchange rate restrictions and challenges in accessing and storing foreign assets into tailwinds.
- The rapid growth of the crypto ecosystem can present new opportunities. Technological innovation is ushering in a new era that makes payments and other financial services cheaper, faster, more accessible, and allows them to flow across borders swiftly.
- Crypto asset technologies have the potential as a tool for faster and cheaper cross-border payments. Bank deposits can be transformed to stable coins that allow instant access to a vast array of financial products from digital platforms and allow instant currency conversion.

Negative

- The adoption of a crypto asset as the main national currency can carry significant risks of macro-financial stability, financial integrity, consumer protection, and the environment.
- The banking sector can also come under pressure if the crypto ecosystem becomes an alternative to domestic bank deposits or even loans. Stronger competition for bank deposits through stablecoins held on crypto exchanges or private wallets may push local banks toward less stable and more expensive funding sources to maintain similar levels of loan growth.

- It is much more volatile than equities or commodities or even exchange rates. So, it can pose instability in countries' economy.
- Transaction costs can be fairly expensive as compared to digital money.
- It can pose some operational and financial integrity risks from crypto asset providers, investor protection risks for crypto-assets and DeFi, and inadequate reserves and disclosure for some stable coins.



Conclusion

Cryptocurrencies are still in the initial stages and the technology is constantly evolving. So, if cryptocurrencies are evolved in such a way that the loopholes are solved, they may compete with the formal financial institutions. IMF's recent stand towards crypto economy will definitely help to improve crypto technologies and reduce challenges related to it.

Crypto Can't Be Legal Tender: IMF-FSB Paper

News Excerpt:

The International Monetary Fund and the Financial Stability Board have jointly developed a paper titled **"Policies for Crypto-Assets"**, at the request of the **Indian G20 Presidency**.

About "Policies for Crypto-Assets" Paper:

- The paper sets out a roadmap towards a coordinated policy response for crypto-assets. **Central bank digital currencies (CBDCs) are not within the scope** of this paper.
- The paper recommends that Crypto assets **should not be granted official currency or legal tender status but it has also argued against an outright blanket ban** on crypto assets.
- Potential benefits of Crypto-assets include cheaper and faster cross-border payments, increased financial inclusion, greater portfolio diversification and operational resilience, increased transparency and traceability of transactions.

INTERNATIONAL MONETARY FUND:
Established in 1944.

India is a founder member.

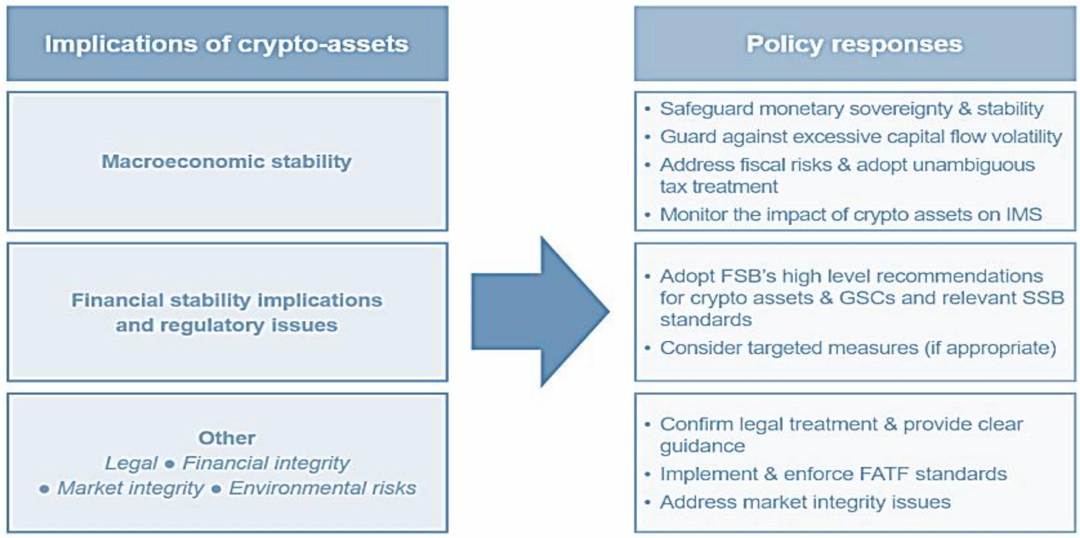
FINANCIAL STABILITY BOARD:
Monitors and makes recommendations about the global financial system.
Decisions not legally binding.
India is a member.

Recommendations of the paper:

- **Safeguard monetary stability:** Direct connections between crypto-assets and systemically important financial institutions have been limited but their increased adoption, can hamper monetary stability. Countries should also avoid holding crypto assets in official reserves due to the volatile nature of their value.
- **Safeguard Financial stability**: If interconnections between crypto-asset activities and the traditional financial system were to increase, the spill-over effects may impact important parts of traditional finance. They could amplify existing vulnerabilities and pose new risks to global financial stability.
- **Fiscal and Exchange Rate Risk**: Outlining the fiscal risks, the synthesis paper said that if crypto assets were granted official currency or legal tender status, government revenues could be exposed to exchange rate risk.
- **Safeguard monetary sovereignty**: An effective Monetary-Policy Framework (MPF) safeguards the monetary sovereignty of any country. The transmission of monetary policy would weaken if firms and households prefer to save and invest in crypto-assets that are not pegged to the domestic fiat currency. The borderless nature of the crypto-assets ecosystem limits the effectiveness of individual national regulation.
- **Guard against excessive capital flow volatility:** Policymakers should guard against excessive capital flow volatility by taking steps such as **clarifying the legal status of crypto assets.** The paper has cautioned that if capital flow management measures become less effective, jurisdictions may need to consider greater exchange rate flexibility, balancing the three competing

objectives of the Impossible Trinity of **monetary autonomy, exchange rate stability and free capital flows.**

- **Amplified macro-financial risks for emerging and developing economies**: They may face amplified macro-financial risks from crypto assets **due to a less developed tax framework, large unbanked population, and larger cross-border transaction costs.** Thus, it is necessary to clarify the financial law application and treatment of crypto-assets, where necessary.
- **Security concerns**: The FSB and IMF have also drawn attention towards **money laundering, terrorist financing, and the proliferation of weapons of mass destruction risks** associated with virtual assets. The report has asked countries to identify and take appropriate steps to manage and mitigate those risks, including the adoption of **Financial Action Task Force (FATF)** standards.



Source: IMF/FSB authors

Conclusion:

The paper recognizes the complexities surrounding cryptocurrencies **and advises against outright bans** as this move can be costly as well as technically demanding to enforce. It encourages countries to recognize that the cryptocurrency space is continuously evolving and regulatory approaches in India and other countries **should strike a balance between fostering innovation and protecting consumers and the financial system**.

Cyber Insurance is Critical for MSMEs

News Excerpt:

Cybersecurity has become a major concern for Micro, Small and Medium Enterprises (MSMEs).

About the Contribution of MSMEs:

- India's economic progress today heavily depends on the Micro, Small and Medium Enterprises (MSMEs) that are the **backbone** of the business ecosystem.
- Together, these enterprises contribute more than **28%** to the **GDP**, generating employment and trade opportunities.
- MSMEs contributed **45.04%** to overall **exports** during the Financial Year 2022.
- The MSME sector plays a significant role in **alleviating poverty** and **correcting regional imbalances.**
- MSME development can assist in better meeting **SDG goals**, including SDG 1 (ending poverty), SDG 2 (ensuring zero hunger), etc.

Vulnerability of MSMEs to cyber-attacks:

- MSMEs need a robust shield against any risks, given the **high stakes**. In this age of heavy digital reliance, businesses cannot afford to overlook the high financial and legal implications that come bundled with cyber risks.
- **Increase in cyber-attacks**: A recent **report** by cyber security firm **Acronis** indicated that companies in India have reported more cyber-attacks than anywhere else.
- **Wide range of risks**: MSMEs have become prime targets for cybercriminals. They face a wide range of cyber risks, including data breaches, **malware** attacks, **phishing** attacks and **denial-of-service** attacks.
- **Soft targets**: They are soft targets because, compared with large corporations, they often have **fewer resources** to invest in cyber security. Also, they are **less likely** to have a team of **security experts**.

- **Multi-pronged consequences**: Studies indicate that about **43%** of all cyber attacks are directed at small businesses and start-ups. The consequences are multi-pronged. They often result in **financial losses**, **damage to reputation**, and **operational disruptions.**

Cyber insurance needed for MSMEs:

- **Financial safety net**: It provides a **financial safety net**, covering the costs associated with data breaches, **ransomware attacks**, and **cyber incidents**. For cash-strapped SMEs, this can be the difference between survival and insolvency.
- **Cyber extortion protection**: Cyber-attacks on MSMEs often involve ransomware and cyber extortion. The perpetrators hack into the systems and block all access unless the victim pays a ransom. Cyber insurance can help navigate through such risks.
- The policy can cover a wide range of costs, including **notification costs**, which are the costs of notifying customers and other affected parties about a data breach.
- **Against operational disruptions**: Such incidents can lead to operational disruptions. Cyber insurance typically offers coverage for business interruption, compensating for lost income during downtime caused by a cyber event.
- **Affordable coverage**: Cyber insurance can provide MSMEs with protection at a **cos**t they can afford.
- **Intangible costs coverage**: A cyber insurance policy often includes provisions for **reputation management**, helping businesses navigate the aftermath of a cyber-attack and rebuild trust with stakeholders.

Cybersecurity insurance for small businesses in other countries:

- **US**: The US has created the '**Ransomware Risk Management Program'** to improve access to affordable cyber insurance for small & medium businesses and provide guidance on risk management.
- **EU**: The European Union's **General Data Protection Regulation (GDPR)** requires businesses to take necessary measures to protect their customers' personal data.
- **Japan**: Countries like Japan have introduced cyber security **insurance pools** that provide coverage for small & medium businesses.

Steps taken by India:

- **Cyber Swachhta Kendra**: The program provides free online security services to Indian citizens and organizations, including MSMEs. These services include anti-virus and anti-malware scanning, vulnerability assessments, and security awareness training.
- **Digital MSME scheme**: This scheme encourages MSMEs to reduce risks associated with data storage, store data in the cloud, and reduce risks associated with data storage.
- **National Cyber Security Policy**: This policy aims to strengthen the regulatory framework for ensuring a secure cyberspace ecosystem. It implies the protection of MSMEs from cyber-attacks as well.
- **MSME Sambandh**: The government launched this scheme to monitor and track the implementation of various government schemes, including cybersecurity-related initiatives, to benefit MSMEs.

Way Forward:

- **Awareness of cyber risks**: Improve awareness of the various types of endpoint risks that your organization currently faces by conducting regular security checks and boosting the IT team's capabilities.
- **Authentication**: Ensure multi-factor authentication for all applications and devices and emphasize strong passwords to avoid security breaches.
- **Affordable tools:** Facilitate MSMEs' access to affordable cybersecurity tools and services through partnerships with cybersecurity providers.
- **Collaboration and information sharing:** Create platforms where MSMEs can collaborate and share information about emerging threats and best practices.
- **Awareness about regulation**: Ensure that MSMEs know and comply with relevant data protection and privacy regulations, such as the Personal Data Protection Bill.
- **R&D and Innovation**: Encourage MSMEs to invest in research and development for cybersecurity innovations, offering financial incentives and support.

Digital Consent Acquisition (DCA) System

News Excerpt:

The **Telecom Regulatory Authority of India (TRAI)** has asked banks and other entities sending out commercial messages to telecom subscribers via SMS or voice calls to take "urgent" steps to be onboard the **Digital Consent Acquisition (DCA) system** as per stipulated timelines.

About:

- The crackdown on **Unsolicited Commercial Communications** like spam and pesky messages had seen **TRAI issuing directions in June 2023 to all the access providers to develop and deploy the DCA facility** for creating a unified platform and process to seek and register customers' consent digitally across **all telecom operators and 'Principal Entities'.**
- TRAI has set a **deadline of September 30** for onboarding **Principal Entities (PEs)** from the banking, insurance, finance, and trade sectors and **November 30** for onboarding PEs from the remaining sectors.

About TRAI:

- Established on February 20, 1997, by the Telecom Regulatory Authority of India Act 1997.

- It was established to regulate telecom services, including fixation/revision of tariffs for telecom services, which were earlier vested in the Central Government.
  - One of the main **objectives of TRAI** is to provide a fair and transparent policy and competition environment.

Principal Entities (PE):

- Banks, other financial institutions, insurance companies, trading companies, business entities, and real estate companies are **Principal Entities or Senders** in Telecom Commercial Communications Customer Preference Regulations, 2018 (TCCCPR-2018).
- They send commercial messages to telecom subscribers through SMS or voice calls.

Limitation of the Prevalent System:

- In the **prevalent** system, consent is obtained and maintained by various PEs. As a result, the Access Providers **could not verify the authenticity of consent.**
- Furthermore, there was **no unified system** for clients to provide or withdraw consent, necessitating a revision by TRAI.

The new DCA process has been established to streamline the process of seeking and revoking the consent of the consumers.

- It is clearly stated that, following the implementation of DCA, **all current consents obtained by alternative means will be considered null and void,** and all PEs will be required to seek new consents solely through digital means.

TRAI works for a fair and transparent policy environment that promotes a level playing field and facilitates fair competition. **In this line of business, the Digital Consent Acquisition (DCA) system will be an effective tool for future regulation.**

Rise of AI chatbots in India's Banking Sector

News Excerpt:

The **Reserve Bank of India** (RBI) has released a report on **Trends and Progress of Banking in India 2022-23** that studies the use of Artificial Intelligence (AI) in banks and how it has grown over time.

More details on the report:

- An analytical study was conducted on banks' annual reports by the RBI staff between 2015-16 and 2021-22 to assess the level of awareness and readiness for adopting AI in Indian banks.
- This study employed a textual analysis method by matching keywords specific to the domain and utilizing named entity recognition techniques.
- It leveraged widely recognized AI and **Machine Learning (ML)** dictionaries and glossaries from sources such as Google Vertex AI, Google Developers, IBM, NHS AI Lab, and the Council of Europe.
- Insights from Large Language Models such as ChatGPT and Bard were integrated into the analysis.

- **Machine Learning:** It is a branch of artificial intelligence (AI) and computer science that focuses on using data and algorithms to imitate how humans learn, gradually improving its accuracy.
- **Chatbot:** A chatbot is a computer program that simulates a human conversation with an end user. Though not all chatbots are equipped with artificial intelligence (AI), modern chatbots increasingly use conversational AI techniques like natural language processing (NLP) to understand the user's questions and automate responses to them.

Chatbots take centre stage:

- In FY17, **only 5 banks** had opted for this facility. This incrementally grew in the following years. Now, **26 banks** have this facility.
- Over **78.8%** of the banks have adopted this facility — i.e**., 26 out of the 33** scheduled commercial banks analyzed.
- The share of PVBs with chatbots was significantly higher than the share of PSBs in FY17. However, the situation reversed in the following years, with the trend of large-scale mergers among the PSBs appearing to have influenced the adoption of chatbots, as merged entities often adopt the technology from their acquiring banks.
- According to the RBI study, **non-banking financial corporations** have also started introducing chatbots for customer services.

AI's multifaceted impact:

- The analysis using a word cloud indicates a significant emphasis by banks on automation.
- This trend likely stems from the goal of **improving efficiency** and enhancing capabilities in the **detection of fraud** and other forms of predictive analytics, the RBI study suggests.
- Notably, there is an **awareness or potential for adopting emerging technologies** such as Robotic Process Automation, the Internet of Things, and Natural Language Processing.
- A key application of AI in various service sectors is the use of chatbots, which **can engage in conversations** with **human** users in natural languages, either via text or voice.

Risks and challenges:

- The study ends with a cautionary note. AI in finance might heighten existing risks and introduce new ones, such as **consumer protection concerns.**
- The **opaque functioning of AI models** complicates compliance with laws, regulations, and internal controls in financial firms.

- The study warns that these models could trigger market shocks and amplify **systemic risks,** particularly in terms of procyclicality.

Benefits of chatbots in banking:

- **Automated support:** Customers can use banking chatbots 24"7 to resolve a wide range of banking customer queries.
- **Personalized customer experience:** Chatbots can provide customers with their bank balances and, check account information and even make personalized product recommendations based on the customer's financial situation.
- **Self-service:** Whether it's checking account details or finding information on a specific branch, chatbots can help customers help themselves and complete a process quickly without needing to speak to a representative.
- **Reduced costs:** When customers can use chatbots to complete routine banking activities, banks can drastically reduce customer support costs.
- **Better understanding of customers**: Over thousands of conversations, chatbots can collect customer data to personalize services and guide future strategy decisions.

Way Forward:

Improved client experiences and increased efficiency are anticipated from the banking sector's rapid adoption of AI in India. Although possible risks should be considered carefully, the sector is well-positioned for future development and innovation due to its favourable influence on operations, risk management, and customer service.

New patent rules

News Excerpt:

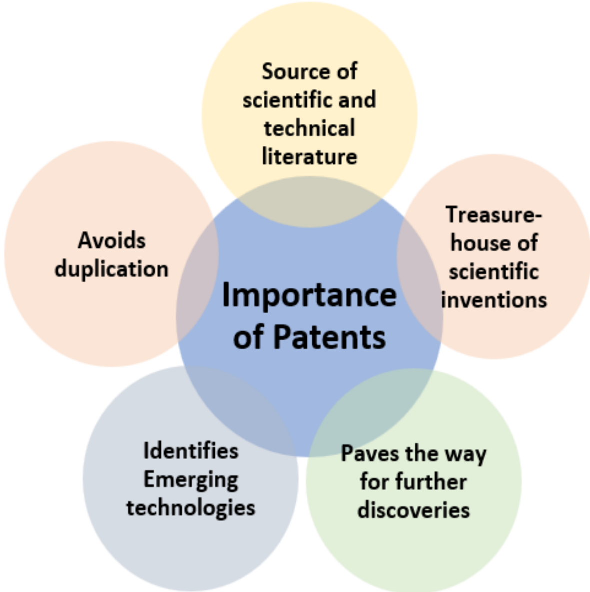
The Patent Rules 2024 have been notified, marking a significant milestone in the journey towards fostering innovation and economic development.

About New Patent rules:

- These rules introduce several provisions aimed at **simplifying the process of obtaining and managing patents**, thereby facilitating a conducive environment for inventors and creators.

What is a patent?

- **It is a statutory right to the inventor** or the applicant by the government for his invention which is either a new process or product.
- **It protects intellectual property for 20 years**, during which time no one else can manufacture the product. Royalties can be paid to use the product.
  - After 20 years, technology enters the public domain.
- It is granted in lieu of sufficient disclosure to the patent offices.
- **It is only a territorial right.**
- A patent is **not an absolute right; this** is **subject to certain conditions like-**
  - Government Use: Importation or manufacturing by or on behalf of the government.
  - Experimental purpose; Research purpose; Teaching purpose.
  - Drugs or medicine are distributed by the government in dispensaries, hospitals, or other medical institutions, rendering public service or on behalf of the government.
  - Used for Foreign vessels, aircraft, and land vehicles that have temporarily or accidentally come to India.



Patent system in India:

- The patent system in India is governed by the Patents Act, 1970, as amended by the Patents (Amendment) Act 2005 and the Patents Rules 2003.
- The Patent Rules are regularly amended in consonance with the changing environment, the most recent being in 2016.
- An invention is patentable subject matter **if it meets the following criteria –**
  - i) It should be novel.
  - ii) It should have inventive steps, or it must be non-obvious
  - iii) It should be capable of Industrial application.
  - iv) It should not attract the provisions of sections 3 and 4 of the Patents Act 1970.
- All the patent applications are kept secret upto 18 months from the date of filing or priority date, whichever is earlier, and thereafter, they are published in the Official Journal of the Patent Office, which is published every week and also available on the Indian patent office (IPO) website.

- After its publication, the public can inspect the documents and also may take a photocopy thereof on payment of the fee as prescribed.

Salient features of the new rules:

- A unique provision for a New **'Certificate of Inventorship'** has been introduced to acknowledge the contribution of inventors in the patented invention.
- Provision for **claiming benefits of Grace period** under section 31 has been **streamlined** by incorporating new forms, i.e., Form 31.
- **Time limit to furnish foreign application** filing details in Form 8 has been changed from six months from the date of filing of application to **three months from the date of issuance** of the first examination report.
- Considering the fast pace of technology, the **time limit for filing request** for examination has been reduced from **48 months to 31 months** from the date of priority of application or from the date of filing of application, whichever is earlier.
- The provision to extend the time limit and condone delay in filing has been further simplified and made more explicit to ease in practice. Now, the time for doing any act/proceeding **may be extended any number of times** up to six months **by a request in the prescribed manner.**
- **The renewal fee has been reduced by 10%** if paid in advance through electronic mode for a period of at least 4 years.
- **Frequency to file the statements of working of patents** in Form 27 has been reduced from once in a financial year to **once in every three financial years.**
    - **The provision to condone delay in filing** of such statements for a period of up to **three months** upon a request in a prescribed manner has been incorporated.
- **The procedure to file and dispose of the Pre-grant representation** by way of opposition under section 25(1) has been further **streamlined** and made more explicit by providing ways to dispose of the representation and fixing fees to file such representation in order **to curb benami and fraudulent pre-grant oppositions** and simultaneously encouraging the genuine oppositions.

Way Forward:

The new Patent Rules 2024 **aims to simplify patent processes, support inventors, and enhance economic growth.** With provisions like the **'Certificate of Inventorship' and streamlined grace periods**, these rules bolster innovation. Reduced examination request timelines and flexible working statement filings further **align the system with evolving technological needs**, fostering a **robust environment for intellectual property rights.**

Standard Essential Patents (SEPs)

News Excerpt:

India remains the **only major economy that has not yet investigate**d the potentially abusive licensing practices of technology companies that own SEPs.

About the news:

- There is a possible crisis brewing in India over how certain technology companies are wielding 'standard essential patents' (SEP) **against the telecom manufacturing sector.**
- This directly affects **India's effort to build a domestic manufacturing industry for cellular phones.**
- So far, the issue of regulating SEPs has been left to the **Indian judicial system**.

What are SEPs?

- These are **patents that cover technologies that are adopted by the industry as "standards".** For example, technologies such as CDMA, GSM, and LTE are all industry standards in the telecom sector.
- Such technological standards are especially important **to ensure the interoperability of different brands of cellular phones manufactured by different companies**.
    - **For example,** once GSM was adopted as a standard, all manufacturers had to ensure that their handsets were compatible with GSM. Otherwise, there would be no demand for their phones.
- The **companies that own the SEPs theoretically gain enormously** because every cell phone manufacturer has to license the technological standards in question in order to survive in the market.
- The **lack of alternatives** also means that SEP owners can demand **extortionary royalties** or licensing terms from manufacturers that block competition. In economics, this is called the **"patent holdup" problem.**
- In theory, the SSOs are supposed to prevent such a scenario by requiring the owners of SEPs to license their technologies at a **fair, reasonable and non-discriminatory (FRAND) rate.**

Associated Problems:

- Opaque **Nature:**
    - The process of setting standards in the technology sector **is largely privatized and is opaque**.
    - It is also **dominated by "Standard-Setting Organizations" (SSOs)**, run largely by private technology companies.
    - Countries such as India, which has little innovation in the telecom sector, have little influence over how standards are set or how SEPs are licensed.
- **Self-Regulation Model:**
    - In practice, this model of self-regulation by the technology industry has been marked with opacity and has **failed rather spectacularly,** as evidenced

by the record fines that some of these SEP owners have had to pay worldwide for **engaging in anti-competitive practices**.

- **The Effect of Judicial Lethargy and Activism:**
  - Both judicial lethargy and judicial activism at the Delhi High Court have characterized the Indian response to the issue.
  - **Yet, the Delhi High Court has justified such judicial activism by invoking its "inherent powers to do justice**."
  - This judicial activism, combined with judicial delays, will hurt the government's attempt to attract more investment in the manufacturing sector, such as **under the "Production Linked Incentives" scheme for manufacturing in India.**

Case under study:

- In 2013, the **Competition Commission of India** (CCI), acting on a complaint by **Micromax** began an investigation under the Competition Act into the issue of whether **Ericsson** abused its dominant position by demanding extortionate royalties for its SEPs.
- Ericsson challenged the CCI's power to do so before the Delhi High Court, arguing that the **Patents Act vested the power to remedy an abuse of patents only with the Patent Office.**
- The first round of litigation was resolved **in favour of the CCI** by a **single judge** on March 30, 2016.
- Ericsson then challenged this decision before the Division Bench of the **Delhi High Court,** where it remained pending for an astounding seven years until a judgment was delivered **against the CCI** on July 13, 2023.
- The CCI has appealed against this decision to the **Supreme Court of India**, where the matter remains **pending**.
- These trials are **complex and take time.** Also, they are **unprecedented** in the history of commercial law for the simple reason that there is no provision in the law granting judges such powers.

Way Forward:

- It is **time for the Indian government to intervene** and put in place measures to **regulate SEPs** before the judiciary causes further damage to India's manufacturing dreams. India will not be an outlier if it intervenes.
- The **European Parliament has already enacted one such set of measures to regulate SEPs.** India, arguably, has a much stronger case to push for similar, if not stronger regulatory measures, since it has no say in how SEPs are selected by SSOs, while also being compelled by international agreements to enforce patents of foreign technology companies.

Newly proposed Highway toll collection system

News Excerpt:

The Ministry of Road Transport and Highways said that the government **plans to implement a new highway toll collection system** based on the global navigation satellite system **before the model code of conduct for the 2024 election kicks in.**

About the newly proposed highway tolling system:

- **Global navigation satellite system's (GNSS) implementation** will involve an **On-Board Unit (OBU), or a tracking device, fitted inside a vehicle** whose location can be mapped using GAGAN, the Indian satellite navigation system with an approximate accuracy of 10 meters.
- The coordinates of the entire length of the country's national highways will have to be logged with the help of **digital image processing.**
- **The software will be used to assign the toll rate** on a particular highway, calculate the toll amount for a vehicle as per the distance traveled by it, and then deduct it from a **wallet linked to the OBU.**
- The system will additionally have gantries, or arches mounted with CCTV cameras, at various points on a highway for enforcement purposes.
  - **These will capture an image of the vehicle's high-security registration plate** and cross-verify if a road user is trying to trick the system by either removing the tracking device or traveling without an OBU onboard.
- The technology aims to **provide users with the benefit of paying toll only for the actual distance travelled on a highway** or (pay-as-you-use), eventually allowing barrier-free movement.
- **It will lower the operational cost** as compared to FASTags due to the absence of toll plazas and less number of entities in the toll collection process.

Challenges involved in the implementation:

- One of the major challenges posed by this technology is that of **recovering the toll amount if a road user fails to clear his payment** after completing a journey on a highway, for instance, if the **digital wallet linked with**

Improved Accuracy and Efficiency

- This could lead to **reduced traffic congestion** and faster passage through toll points.

Pay-as-You-Use Model

- **This could benefit both commuters and long-distance travellers** who currently pay fixed toll amounts.

Operational Cost Savings

- The system's reliance on digital technology, without the need for physical toll plazas, can lead to lower operational costs.

Figure: Significance of the newly proposed highway toll collection system

the OBU is empty. There are **no barriers involved that can stop a non-compliant vehicle.**

- There are other issues, such as: -
  - When a vehicle travels on a highway without an OBU device linked or, the OBU device is deliberately switched off to avoid payment, or if a car's OBU is installed on a truck to pay less toll.
  - **Gantry-mounted Automatic Number-Plate Recognition (ANPR)**-based systems for capturing violations have to be set up on highways across India, and **no such infrastructure exists in the country today.**
- **The government will also have to amend the National Highways Fee (Determination of Rates and Collection) Rules** to:
  - Provide for the **recovery of unpaid toll**
  - **Define offences**
  - Require the **necessity of an OBU in vehicles.**

About FASTags:

- It is a device that employs Radio Frequency Identification (RFID) technology to make toll payments directly while the vehicle is in motion.
- This RFID Tag is affixed on the windscreen of the vehicle and enables a customer to make toll payments directly from the account which is linked to FASTag.
- It offers the convenience of cashless payment along with benefits like - savings on fuel and time, as the customer does not have to stop at the toll plaza.

Way Forward:

The newly proposed highway toll collection system in India, based on the global navigation satellite system, **represents a significant advancement in tolling technology**. It promises improved accuracy, efficiency, and fairness in toll collection, potentially **leading to reduced congestion, cost savings, and a more seamless and better travel experience for road users in India.**

Reverse Flipping of Unicorns

News Excerpt:

The startup ecosystem in India is experiencing a notable **rise in reverse flipping**.

About Reverse Flipping:

- **Reverse Flipping** is a term for the trend of overseas **startups shifting their domicile to India** and **listing on Indian stock exchanges.**
- Indian startups are now opting to reverse flip back into the country due to its **favourable economic policies**, **burgeoning domestic market,** and **growing investor confidence** in the country's startup ecosystem.
- At the time some of these companies were set up, quick and adequate funding was hard to come by locally.
  - As a result, many startups turned to **foreign investors**, which required them to set up holding companies overseas.

Recent Cases of Reverse-Flipping of Unicorns:

- Several high-profile startups have successfully executed **reverse** flipping to India, solidifying the country's position as a startup hub.
  - **Walmart-owned PhonePe** moved its headquarters from **Singapore to India,** leveraging the country's vast user base and digital payment potential.
  - **Pine Labs, Meesho, and Zepto** are the latest new-age companies looking to move headquarters to India.

How is Reverse-Flipping done?

- Structuring a reverse flip is not easy, and startups considering this journey must navigate a maze of **regulations**.
- Some popular methods include **share swaps and mergers**, which may also require **National Company Law Tribunal (NCLT) approval.**
- The **Economic Survey of 2022-23** acknowledged the **concept of reverse flipping** and has listed possible measures, such as
  - simplifying the processes for **tax holidays**,
  - **taxation of Employee Stock Ownership Plans (ESOPs)**,
  - **capital flows**,
  - **reducing layers of tax** to accelerate the reverse flipping process.

Why are startups opting to reverse flip?

- India is the **world's fifth-largest economy by GDP** and is expected to become the **third-largest economy by 2030.**
  - This growth is driven by several factors, including a **young population, rising urbanization, and increasing disposable income**.
  - This young population is also well-educated, which makes India an attractive market for overseas startups looking for a **skilled and talented workforce.**
  - The Indian capital market also provides overseas startups **access** to a **large pool of capital.**
- The listing process on the **Indian stock exchanges** is relatively cost-effective compared to many of the Western exchanges.
  - This makes it an attractive option for overseas startups with limited resources.
- Another significant upside is the opportunity to tap into **the growing Indian consumer market.**
- Additionally, **overseas startups can find synergies with Indian companies.**

- This can lead to **partnerships, joint ventures, and acquisitions**, which in turn help overseas startups expand their reach and operations in India.

Tax implications of reverse flipping:

- Companies opting to reverse flip **will have to pay taxes** in those markets where they are based or in India, depending on the route they choose.
- The **quantum** will depend on the company **valuation** and a **third-party audit.**
- Earlier, **Walmart** paid nearly **$1 billion** in taxes to the Indian government during the separation of **PhonePe** from parent **Flipkart** and the return of its holding company to India.

Way Forward:

- Despite the potential benefits, structuring a reverse flip poses **challenges due to regulatory** complexities**, requiring startups to navigate intricate regulations and compliance requirements.**
- Additionally, startups must navigate exchange control regulations when repatriating funds or assets to India, ensuring adherence to all regulatory obligations.
- The **International Financial Services Centres Authority (IFSCA)** established an **expert** committee to devise a strategy for **'Onshoring Indian Innovation to GIFT IFSC'**, aiming to make **GIFT City** a preferred destination for startups considering reverse flipping.
- The trend of reverse flipping is likely to continue in the coming years as many overseas startups look to capitalize on India's growth potential, bringing in new investment and jobs.

RBI's Digital Rupee Faces Multiple Hurdles

News Excerpt:

The Reserve Bank of India (RBI) has been striving to boost the adoption of its **Retail-Central Bank Digital Currency (R-CBDC) or e-rupee**.

What is e-rupee?

- E-rupee is a **digital form of the Indian rupee**, introduced by the **RBI**.
- It was launched to **promote digital payments** and reduce dependence on physical currency.
- RBI launched the first pilot of **Digital Rupee- Retail segment (e₹-R)** on **December 01, 2022**.
- Unlike UPI, the e-rupee is a **digital alternative to cash**, exchangeable via wallets or the UPI infrastructure.

Initiatives taken by RBI

- RBI aims to expand the digital rupee's reach by including more **non-bank payment service providers** and **making the e-rupee compatible** with India's **Unified Payments Interface** (UPI).
- Earlier this year, RBI engaged with **bankers and fintech officials** to strategize on **boosting consumer adoption** and **integrating the digital currency** into the mainstream financial system.
- Despite these efforts, overall **adoption of the e-rupee remains limited**.

Circulation of e-rupee

- As of the **week ending 31 May 2024**, RBI data shows the e-rupee in circulation stood at **₹323.5 crore**, up from **₹100 crore in December 2023**.
- However, this is still a **minuscule portion of the ₹35.4 trillion in banknotes** currently in circulation.
- By April, **within 16 months of its December 2022** launch, **4.6 million consumers** and **400,000 merchants** had **signed up** for the e-rupee.
- However, **transaction volumes** remain a small fraction of those on UPI, which was launched in 2016 and supports real-time inter-bank peer-to-peer and merchant transfers via mobile phones.
- RBI Deputy Governor noted a **decline in daily e-rupee transactions** in April.

Reason for low adoption

Several **common obstacles** hinder their adoption.

- **Firstly,** existing online payment systems in India reduce the demand for CBDCs.
- **Secondly**, a lack of robust digital infrastructure complicates seamless CBDC transactions, and regulatory ambiguity further deters adoption.
- **Thirdly**, trust in the system is generally lacking. It offers **no significant additional value** to end-users compared to UPI, leading to low adoption rates.

Trend in other countries

- This trend is **not unique to India**; other countries have also seen slow uptake of retail Central Bank Digital Currencies (CBDCs).
- The **DCash pilot** by the **Eastern Caribbean Central Bank**, launched in 2019, was discontinued in January due to low adoption, exacerbated by a technical outage in January 2022 that halted the system for over a month.
- The **Bahamas' Sand Dollar**, **Nigeria's eNaira**, and **Jamaica's Jam-Dex** also face similar issues. Despite extensive promotional efforts, the **Sand Dollar** had only $1.1 million in circulation by September 2023, representing 0.19% of total currency.
- **Nigeria's eNaira**, launched in October 2021, has seen usage by only about 0.5% of Nigerians.
- **Jamaica's Jam-Dex**, introduced in 2022, initially surged due to user incentives but stalled at $1.64 million (0.11% of total currency).
- These pilot projects struggled due to **weak internet connectivity**, **poor digital infrastructure**, **integration issues** with traditional banking systems, **low public awareness**, and **inadequate incentives** for adoption. **China's e-CNY** has seen limited adoption due to the dominance of **Alipay and WeChat Pay**.

Challenges in India

- India's **e-rupee faces** challenges against the **popular UPI system**.
- Efforts to **integrate e-rupee wallets with UPI** and explore **government-to-person (G2P) transactions** and **cross-border payments** have not yet created a compelling value proposition for the digital currency.

Way Forward:

- While the **e-rupee is considered safer than UPI** as it is a **direct liability of RBI**, this subtle benefit is not easily understood by most users.
- To increase e-rupee popularity, **RBI is collaborating with lenders** to introduce **programmability**, which allows for **specific usage instructions**. For instance, IndusInd Bank used a programmable e-rupee to pay farmers for carbon credits.
- Similarly, the **Bahamas and Nigeria** are utilizing CBDCs for **government disbursements** and **welfare transfers**.
- **Jamaica** is considering using its CBDC for **seasonal work payments**, and in **China**, civil servants in Jiangsu province have been receiving wages in **e-CNY** since May 2023.
- While **RBI** aims to make the **e-rupee as cash-like as possible**, programmability could challenge its **fungibility and liquidity**, potentially affecting **privacy and public trust**.
- Experts caution that **programmable money** might **alter economic behavior and exacerbate inequality**.
- Overall, RBI must approach the **e-rupee's implementation with caution** and further study in this direction is very necessary.

AI Preparedness Index

News Excerpt:

The **International Monetary Fund (IMF)** launched an **Artificial Intelligence Preparedness Index (AIPI) Dashboard**, evaluating 174 economies worldwide for their AI readiness.

About Intelligence Preparedness Index:

- The Index assesses countries based on **Digital infrastructure**, **Human capital, Labor policies, Innovation & Economic Integration, and Regulation and Ethics.**
- The AIPI categorizes countries into **Advanced Economies (AE), Emerging Market Economies (EM), and Low-Income Countries (LIC).**
- **India is categorized as an EM with a 0.49 rating. India ranks 72 in a total of 174 countries,** with Bangladesh (0.38) on 113, Sri Lanka (0.43) on 92, and China (0.63) on 31.
- **Singapore (0.80), Denmark (0.78), and the United States (0.77) are among the highest-rated AEs.**

AI's Impact on the Global Economy:

- IMF research indicates that AI is set to reshape the global economy, potentially **endangering 33% of jobs in advanced economies, 24% in emerging economies, and 18% in low-income countries.**
- Despite these risks, AI also holds **immense potential to enhance job productivity, create new roles, and establish new industries.**

Disparities in AI Adoption:

- **Emerging market economies and low-income countries** typically have fewer high-skilled jobs than advanced economies, suggesting they **may experience fewer immediate disruptions from AI.**
- However, these countries often lack the necessary infrastructure and skilled workforce to fully benefit from AI, **potentially exacerbating global inequality.**
- The IMF's analysis highlights that wealthier economies are generally better equipped for AI adoption compared to low-income countries.
- The varied stages of AI readiness across **countries highlight the need for tailored policies to manage risks and maximize benefits.**

Artificial Intelligence (AI):

It refers to the simulation of human intelligence in machines that are programmed to think and learn like humans.

These intelligent systems can perform tasks that typically require human intelligence, such as recognizing speech, making decisions, understanding natural language, and identifying patterns.

Some common Applications of AI include:

Healthcare: AI algorithms can analyze medical data, such as imaging and patient history, to assist doctors in diagnosing diseases and recommending treatments. AI accelerates the process of discovering new drugs by predicting how different compounds will interact with targets in the body.

Finance: AI systems analyze transaction patterns to identify and prevent fraudulent activities. Models can predict market trends and execute trades at optimal times for maximum profit.

Customer Service: AI-powered chatbots provide instant responses to customer inquiries, improving customer service efficiency and availability. Virtual assistants like Siri and Alexa help users manage tasks, answer questions, and control smart home devices.

Transportation: AI enables self-driving cars to navigate and make decisions on the road, aiming to reduce accidents and improve traffic flow. AI systems optimize traffic signals and manage congestion in urban areas.

Retail: E-commerce platforms use AI to suggest products based on user behaviour and preferences. Inventory Management: AI predicts demand and optimizes stock levels, reducing waste and improving efficiency.

Manufacturing: AI monitors equipment to predict failures and schedule maintenance, minimizing downtime. AI systems inspect products for defects, ensuring high quality in production lines.

Education: AI tailors' educational content to individual students' learning styles and paces.AI helps automate administrative tasks such as grading and scheduling.

Agriculture: AI analyzes data from sensors and drones to optimize planting, watering, and harvesting. AI identifies pest infestations early, allowing for timely and targeted interventions in Precision Farming.

Addressing Inequality:

- Policymakers are urged to take proactive measures to mitigate the inequality.
- The AIPI Dashboard **aims to provide valuable insights for policymakers, researchers, and the public to assess AI preparedness and formulate policies that ensure AI advancements benefit all sectors of society.**

MISCELLANEOUS

Nobel Prize in Economic Sciences 2023

News excerpt:

Claudia Goldin has won the Sveriges Riksbank Prize in Economic Sciences in Memory of Alfred Nobel 2023.

She has provided the first comprehensive account of women's earnings and labour market participation through the centuries. Her research reveals the causes of change as well as the main sources of the remaining gender gap.

Alfred Nobel constituted a series of prizes in Physics, Chemistry, Physiology or Medicine, Literature, and Peace – the Nobel Prizes. In 1968, **Sveriges Riksbank (Sweden's central bank)** established The Sveriges Riksbank Prize in Economic Sciences in Memory of Alfred Nobel.

In-depth:

- **The first two female winners were:** (only three women have so far won this prestigious prize).

1. **Elinor Ostrom**: She became the first woman to win the prestigious Nobel Prize in Economic Sciences in 2009. She was awarded for her analysis of economic governance, especially the "Tragedy of Commons."
2. **Ester Duflo:** She was awarded in 2019, for her experimental approach to alleviating global poverty.

Professor Claudia Goldin's work:

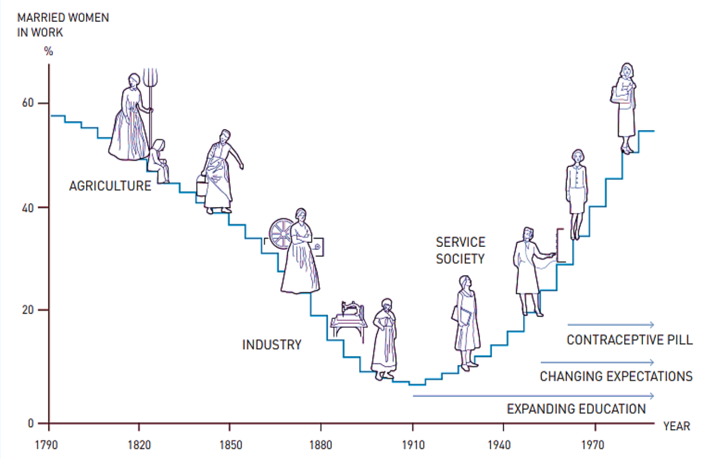
- She won this award for **"having advanced our understanding of women's labour market outcomes".**
- She researched the 200 years of archives of the United States of America to **demonstrate how and why gender differences in earnings and employment rates have changed over time.**

Her findings:

How has the pattern changed?

She **contradicted the popular belief** that the participation of women in the workforce showcases a linear upward trend when plotted against time. She confirmed that the data shows a **U-shaped curve** i.e., a decrease is noticed at first with an increase later on.

- The participation of **married women** decreased with the transition from an agrarian to an industrial society in the early nineteenth century but then started to increase with the growth of the service sector in the early twentieth century. **Goldin explained this pattern as the result of structural change and evolving social norms regarding women's responsibilities for home and family.**



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- During the twentieth century, women's education levels continuously increased, and in most high-income countries they are now substantially higher than for men**. Access to contraceptive pills was an important factor** in this shift as this allowed women to plan both their careers as well as families for the long run.

Why has the pattern changed?

- She noted that only about **50% of all women** are actively seeking work or are in paid employment, while the corresponding figure for men is 80%. **Those women who participate earn significantly less than their male counterparts for the same occupation.**
- Data shows that despite modernization, economic growth, and rising proportions of employed women in the 20th century, for a long period, the earnings gap hardly closed. Historically, much of the gender gap in earnings could be explained by differences in education and occupational choices.
- However, Goldin has shown that the bulk of this earnings difference is now between men and women in the same occupation and that it largely **arises with the birth of the first child.** She explains that educational decisions, which impact a lifetime of career opportunities, are made at a relatively young age.
- **Opportunities for paid female work expanded in the 20th century with,**

- structural change attributable to the expansion of white-collar work (work at a desk under office settings like professional service, administrative work, etc.
- technological change affecting the nature of work at the office and home.
- changes in access to education, such as the expansion of secondary schooling for women.

Yet social stigma attached to the employment of married women and explicit institutional barriers (i.e., so-called **marriage bars**) severely limited the impact of improved opportunities.

Way Forward:

- Understanding women's role in the labour market is important for society as it provides a better understanding of the labour market.
- As data demonstrates the worsening gender divide, this Nobel Prize puts a fundamental debate in focus.
- As **SDG-5 focuses on achieving Gender Equality till 2030**, this debate would provide ample premises to the policymakers as well as the society to work on improving the conditions of half of the workforce.

World Development Report 2024

News Excerpt:

At the current growth rate, India will need 75 years to reach a quarter of America's per capita income.

India's Status:

- For the past two years, the Prime Minister has pledged to transform India into a **high-income**, **developed country by 2047**. India is also on course to become the world's third-largest economy in six years, according to several projections.
- High-income economies have a per capita **Gross National Income** - total amount of money earned by a nation's people and businesses - of $13,846 (£10,870) or more, according to the World Bank.
- With a per capita income of around $2,400 (£1,885), India is among the lower middle-income countries. For some years now, many economists have been warning that India's economy could be headed for a **"middle-income trap"**.

About middle-income trap:

- This happens when a **country stops being able to achieve rapid growth easily and compete with advanced economies.**
- Economists define it as a situation **when countries "seem to get stuck in a trap where your costs are escalating and you lose competitiveness"**.
- A new **World Bank report** holds out similar fears. It also says more than 100 countries – including **India, China, Brazil and South Africa** - face "serious obstacles" that could hinder their efforts to become high-income countries in the next few decades.
- Researchers looked at the numbers from **108 middle-income** countries responsible for **40%** of the world's total economic output – and nearly two-thirds of global carbon emissions. They are home to three-quarters of the global population and nearly two-thirds of those in extreme poverty.
- These countries face **greater challenges** in escaping the middle-income trap. **These include:**
    - Rapidly ageing populations,
    - Rising protectionism in advanced economies and
    - There is an urgent need for an accelerated energy transition.

The solution to achieve the high-income status:

- To achieve high-income status, a middle-income country needs to **ramp up the sophistication of its economic structure.**
- To achieve more sophisticated economies, middle-income countries need two successive transitions, not one.
    - In the **first**, **investment** is complemented with **infusion**, so that countries (primarily lower-middle-income countries) focus on imitating and diffusing modern technologies.

Table O.3 The 3*i* strategy: What countries should do at different stages of development

	LOW-INCOME COUNTRIES 1*i*: Investment	LOWER-MIDDLE-INCOME COUNTRIES 2*i*: Investment + Infusion	UPPER-MIDDLE-INCOME COUNTRIES 3*i*: Investment + Infusion + Innovation
Enterprise	• Improve the investment climate to increase domestic and foreign investment.	• Discipline market leaders through integration into globally contestable markets. • Diffuse global technologies with fluid factor and product markets. • Reward value-adding firms to stimulate business dynamism.	• Deepen capital markets and expand equity financing. • Strengthen antitrust regulation and competition agencies. • Protect intellectual property rights.
Talent	• Invest in human capital by broadening foundational skills and improving learning outcomes.	• Discipline elites by providing equal opportunities for women, minorities, and disadvantaged groups. • Improve allocation of talent to task. • Develop links among local and globally leading universities. • Allow emigration of educated workers whose skills are not valued in domestic markets.	• Strengthen industry-academia links domestically. • Expand programs to connect with diaspora in advanced economies. • Enhance economic and political freedoms.
Energy	• Increase investment in expanding access and grid networks. • Reform regulatory frameworks to attract private investment and ensure fair competition.	• Discipline SOEs by hardening budget constraints. • Use international coalitions to encourage advanced economies to ease protection of domestic incumbents. • Aid adoption of energy-efficient practices. • Enhance economic efficiency by reflecting environmental costs in energy prices.	• Lower the cost of capital for low-carbon energy by reducing risks involving technology, markets, and policy. • Increase multilateral finance for very long-term investments.

- **Second**, **innovation** is added to the investment and infusion mix so that countries (primarily upper-middle-income countries) focus on building domestic capabilities to add value to global technologies, ultimately becoming innovators themselves.

- **The "3i strategy":** Depending on their stage of development, countries need to adopt a sequenced and progressively more sophisticated mix of policies:
  - Low-income countries can focus solely on policies designed to increase **investment—the 1i approach**.
  - Lower-middle-income countries must shift gears and expand the policy mix to **2i, investment + infusion.**
  - Upper-middle-income countries need to shift gears yet again—to **3i: investment + infusion + innovation.**
- In general, middle-income countries need to recalibrate the mix of the three drivers of economic growth—**investment, infusion, and innovation**—as they move through middle-income status.
- **Economic success in lower-income countries stems largely from accelerating investment.** As these economies move to middle-income status, continued progress requires complementing a good investment climate with measures deliberately designed to bring new ideas from abroad and **diffuse them across the economy—so-called infusion.**
- Once a middle-income country has begun to exhaust the potential of infusion, it should expand its efforts to become an **innovative economy.**

About World Development Report 2024:

- The **World Bank's World Development Report** is published annually since **1978**.
- Each Report provides **in-depth analysis and policy recommendations** on a specific and important aspect of development—from agriculture, the role of the state, transition economies, and labour to infrastructure, health, the environment, and poverty.

World Trade Statistics 2023

News Excerpt:

WTO released World Trade Statistics 2023, highlighting the trend in merchandise and survival trade around the world.

About World Trade Statistics:

- It is produced **on an annual basis and it replaced the International Trade Statistics,** the WTO's former annual statistical publication.

Trend Seen in Global Trade:

- In 2023, the global trade landscape **experienced significant shifts**, reflecting a complex interplay of factors influencing goods and commercial services.
- Overall, world trade in goods and commercial services fell by an average of 2%, reaching US$ 30.5 trillion on a balance of payments basis.
- While trade in goods declined, **services trade took an opposite trajectory, showing substantial growth.**

Merchandise Trade:

- The trade in goods **saw a notable decline of 5%**, leading to a decrease in its share of global trade from 77.8% in 2022 to 75.3% in 2023.
- This decline was influenced by several factors, **including high energy prices and inflation, which heavily impacted the demand for energy-intensive manufactured goods.**
- Despite the decline, the value of **merchandise trade remained 25% above 2019 levels, highlighting a resilient but challenged sector.**
- **Agricultural Products:**
  - Among the leading exporters of agricultural products, **Brazil, the European Union, and Thailand increased their exports by 6%, 5%, and 0.2**%, respectively.
  - However, the other seven economies in the top ten **saw a decrease in their agricultural exports**.
  - Collectively, the top ten exporters represented a **71.9% share of world agricultural exports.**
- **Manufacturing**
  - **China's exports of manufactured goods fell by 7%,** with significant declines also seen in Chinese Taipei (-9%) and Hong Kong (-8%).
  - Conversely, the United Kingdom (+7%), Mexico (+4%) and **the European Union (+4%) saw increases in their manufactured goods exports.**
- **Regional Variations in Merchandise Trade**
  - The volume of merchandise trade varied significantly across regions. **Import demand fell** in Europe (-4.7%) and North America (-2.0%) but remained flat in Asia (-0.6%).
  - Conversely**, import demand increased in fuel-exporting regions** such as the Middle East (9.8%).
  - Merchandise export **volumes expanded** in North America (3.7%), Africa (3.1%), and South and Central America and the Caribbean (1.9%).

Commercial Services:

- Trade in commercial services **rose by an average of 9% in 2023,** driven mostly by a **35% increase in travel and a 9% increase in other commercial services,** including computer and business services.
- The share of services in global trade increased from 22.2% in 2022 to 24.7% in 2023, indicating a robust growth trajectory.

- **Regional Growth in Services**
  - **South and Central America and the Caribbean** recorded the **highest regional export growth** in

commercial services **at 13%**, followed by **Africa at 10%**.

- Despite strong global services growth**, Asia's and Europe's transport exports fell by 25% and 8%,** respectively, due to a decline in shipping rates.

- **Leading Economies in Services Trade**
  - The top ten economies in services trade remained the leading exporters and importers in 2023.
  - The **United States (12.7%), the United Kingdom (7.4%), and Germany (5.5%)** accounted for more than a quarter of global services exports.
  - Regarding imports, the United States held a 10.0% share, followed by China (7.6%) and Germany (6.9%).

Key Highlights

- **Africa's Export Growth**: Africa saw a 3.1% rise in merchandise export volume.
- **China's Transport Exports**: China's transport exports dropped by a record 40%, although still 89% above pre-pandemic levels.
- **ICT Services**: Global exports of ICT services increased by 11%, with **India's exports growing by 13%.**

Conclusion

The year 2023 presented a mixed picture for global trade, with a decline in goods offset by substantial growth in services. The resilience and adaptability of different sectors and regions underscore the complex dynamics of global trade in the post-pandemic era.

The Global Trade Research Initiative (GTRI) Report

News Excerpt:

India's **garment exports** in **2023-24** totalled **$14.5 billion**, down from $15 billion in 2013-14, according to a report by the **Global Trade Research Initiative (GTRI)**.

Key Highlights of the Report

- The Report titled "**How Complex Procedures, Import Restrictions and Domestic Interests Hinder India's Garments Exports**," attributes this decline to **high import duties** on **raw materials** and **cumbersome trade procedures**, rather than the competitive strengths of other nations.
- Exporters struggle to obtain **quality raw fabrics**, especially **synthetic fabrics**, while competitors like **Bangladesh** and **Vietnam** do not face these issues.
- This situation forces exporters to use **costly domestic supplies**, making **Indian garments overpriced** and **less attractive to global buyers** who prefer specific fabric sources.
- Additionally, **outdated procedures** from the **Directorate General of Foreign Trade and Customs** require exporters to meticulously track every square centimetre of imported fabric and components, ensuring they are used in production and accurately reflected in export descriptions.
- While **India's garment exports** have stagnated, **Vietnam's exports** grew by nearly 82% to $33.4 billion and **Bangladesh**'s by nearly 70% to $43.8 billion over the same period.
- In contrast, **China's garment exports** stood at about $114 billion in 2023, though this is nearly 25% lower than a decade ago.
- The Report also points to a **rise in India's garment and textile imports**, which reached nearly $9.2 billion in 2023.

Production Linked Incentive (PLI) Scheme for Textiles

- Government Approved **PLI Scheme for Textiles** in **2021**.
- This scheme is expected to have a significant positive impact, particularly in states like **Gujarat, Uttar Pradesh, Maharashtra, Tamil Nadu, Punjab, Andhra Pradesh, Telangana, and Odisha**.
- This initiative will significantly boost the high-value **man-made fiber (MMF) fabric**, complementing the efforts of the **cotton and other natural fiber**-based textiles industries in generating new employment and trade opportunities.
- Currently, **MMF fabrics, apparel, and technical textiles account** for about **two-thirds of international trade** in textiles.

Way Forward:

- The Report calls for a **comprehensive overhaul** of these procedures to improve the current state of garment exports.
- **Production Linked Incentive (PLI) scheme** for textiles launched in 2021 has not attracted significant investor interest and requires major changes to be effective.

Document of NITI Aayog for Viksit Bharat @2047

News Excerpt:

India must strive to reach a **USD 30 trillion economy** with an **annual per capita income** of **USD 18,000 by 2047**.

About:

- This requires our **GDP to grow nine times** from the current **USD 3.36 trillion** and the **per capita income** to increase **eight times** from today's **USD 2,392**.
- The **World Bank** currently defines **high-income countries** as those with an **annual per capita income** exceeding **USD 14,005** (as of 2023).
- The document also highlights that moving from a **middle-income to a high-income** level necessitates sustained growth in the range of **7-10 percent over 20-30 years**, a feat achieved by only a few countries.
- Achieving this ambitious goal requires India to avoid the **Middle-Income Trap** by significantly boosting its GDP and per capita income.

Concept of Viksit Bharat

- Defining the concept of Viksit Bharat, the paper envisions a Bharat with **all the attributes of a**

developed nation, featuring a **per capita income** comparable to today's high-income countries.

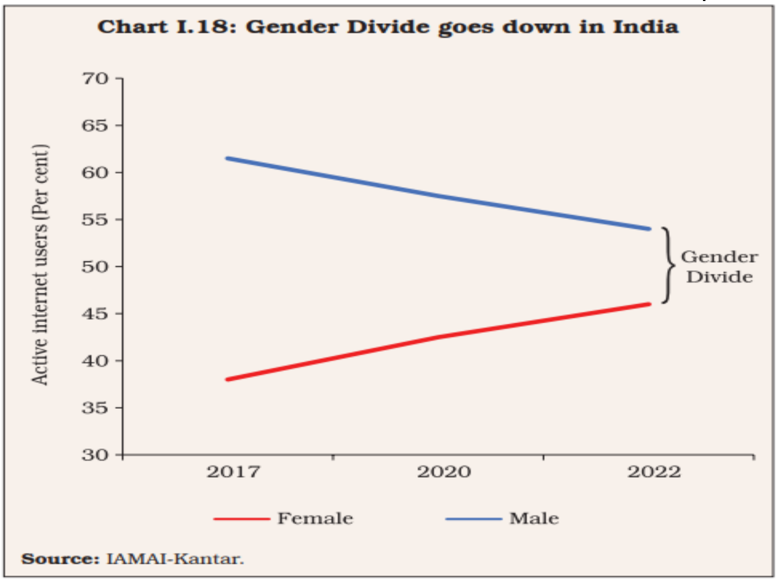
- World Bank defines high income countries as those whose annual per capita income is more than $14,005 (in 2023).
- India envisions a future where its **social, cultural, technological, and institutional attributes** distinguish it as a developed nation with a **rich heritage**, capable of operating at the **cutting edge of knowledge**.
- Addressing **structural challenges**, the paper calls for enhancing capabilities in **manufacturing and logistics**, and bridging the **rural-urban income gap**.
- It highlights the need to balance **energy security, access, affordability, and sustainability**.

Collective National Efforts

- The vision for India must result from **collective national efforts**, not just the work of a few individuals or a single government.
- Additionally, the document stated that **improving industry competitiveness** is essential for transforming the country's **agricultural workforce into an industrial one** and establishing India as a **global manufacturing and service hub**.

Key Highlights of the Governing Council Meeting

- The **three main conclusions** from the Governing Council meeting were:
  - Developing an **investor-friendly charter** where states can be ranked on a **100-point scale** based on their attractiveness to investment and FDI
  - Achieving **zero poverty** and
  - Establishing **basic river grids**
- To become a developed nation, India needs to **increase investment** to around **32% of GDP by 2030**, rising to **34% by 2040** and approximately **35% by 2047**.
- On the **demographic front**, India aims to increase the **average life expectancy to around 84 years**, matching the best in the world.



- The **total fertility rate (TFR)** is expected to gradually decline to about **1.80**, with the **population stabilizing** at about **1.65 billion by 2047**.
- As a **youthful nation**, India's **working-age population** is projected to be **around 1.12 billion**, making it the largest workforce of any nation.

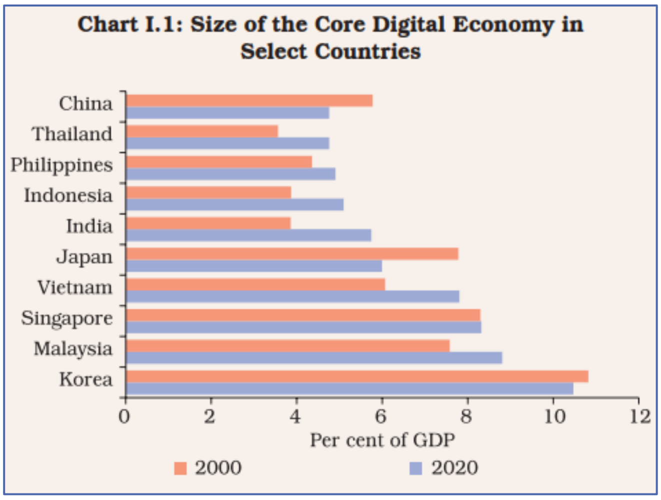
The Currency and Finance (RCF) Report: RBI

News Excerpt:

The Reserve Bank of India (**RBI**) releases **the Currency and Finance (RCF) Report for 2023-24.**

Key highlights of the Report:

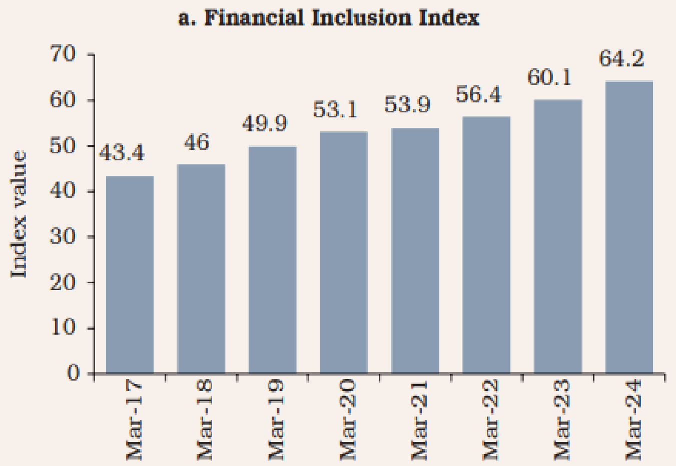
- The theme of the Report is **India's Digital Revolution**.
- India is leading the **global digital revolution**, emerging as a **frontrunner** due to its robust **digital public infrastructure**, rapidly evolving **institutional arrangements**, and a growing **tech-savvy population**.
- **Globally, India ranks:**
  - **First**, in **biometric-based identification** (**Aadhaar**) and **real-time payment volume**.
  - **Second**, in **telecom subscribers**.
  - **Third**, in terms of the **start-up ecosystem**.



Opportunities of Digital Technology:

- **Digital technologies** are unlocking opportunities in **financial inclusion**, **fiscal transfers**, and **cross-border trade** and **remittances**.
- Digitalization in finance is paving the way for **next-generation banking**, improving access to **financial services at affordable costs**, and enhancing the impact of **direct benefit transfers** by effectively targeting beneficiaries in a **cost-efficient manner**.
- On the external front, digitalization is driving growth in **India's services exports** and **lowering remittance costs**. India's digital journey is setting a benchmark for peer economies.

Chart I.13: Strides in India's Financial Inclusion



Role of Regulatory Framework

- The regulatory framework's positive role has increased **consumer confidence** in **digital financial products**, enhancing the **operational** and **technical efficiencies** of financial institutions, as per the Report.

Challenges of Digital Technology:

- However, digital technologies also present challenges related to **cybersecurity, data privacy, vendor** and **third-party risks**, **and customer protection**.
- In this rapidly evolving landscape, **balancing financial stability** and **competition** will remain the key policy challenge.
- Additionally, **emerging technologies** can introduce **complex products and business models with risks** that users may not fully understand, including the proliferation of **fraudulent apps** and **mis-selling** through dark patterns.
- Digitalization may induce **human resource challenges** in the financial sector, necessitating **strategic investments in upskilling** and **reskilling**.

Innovative Digital Product:

- The flagship **Unified Payments Interface (UPI)** has revolutionized the **retail payment experience** for end-users, making transactions faster and more convenient.
- The **digital lending ecosystem** is becoming vibrant with initiatives such as the **Open Credit Enablement Network**, the **Open Network for Digital Commerce**, and the **Public Tech Platform for Frictionless Credit**.
- **Loans in the retail segment** are being enabled by online payments, and **e-commerce** is being boosted through embedded finance. All these innovations are making financial markets more efficient and integrated.

AGRICULTURE

Open Market Sale Scheme

News Excerpt

In recent days, States have been looking at alternative ways of procuring wheat and rice in the aftermath of the Food Corporation of India's (FCI) quantity restrictions. FCI refused to allow states to procure the two food grains through its Open Market Sale Scheme (OMSS).

Open Market Sale Scheme (OMSS)

- This scheme is started by central govt. to curb food supply related issue.
  - Under the Open Market Sale Scheme, the FCI sells surplus food grains time-to-time from the central pool especially wheat and rice in the open market to traders, bulk consumers, retail chains and so on at pre-determined prices.
- OMSS is operationalised by the FCI every year.
- The FCI does this through e-auctions where open market bidders can buy specified quantities at the prices set at the start of a cycle and revised routinely.
- States are also allowed to procure food grains through the OMSS without participating in the auctions, for their needs beyond what they get from the central pool to distribute to NFSA beneficiaries.
- Under the scheme, the procurement of food grains like wheat and paddy for the central pool happens in Rabi and Kharif marketing seasons by the FCI and State corporations according to procurement estimates finalised by the government of India before the seasons. These purchases happen as per the Minimum Support Price.
- Every year OMSS is activated during the lean season, the time between harvests, to improve and regulate domestic supply and availability of the two grains. It brings down their prices in the open market; essentially making the scheme a measure to curb food grain inflation.

Changes in OMSS

- **Reduce Quantity:** Recently, the Centre decided to restrict the quantity that a single bidder can purchase in a single bid under the OMSS.
  - While the maximum quantity allowed earlier was 3,000 metric tonnes (MT) per bid for a buyer, it will now range from 10-100 metric tonnes (MT).
- **Suspension of sale of grains to states:** Central Govt. stopped the sale of rice and wheat from the Central pool under the OMSS to state governments, also disallowing private bidders to sell their OMSS supplies to state governments.
  - However, the sale of rice under the OMSS will be continued for north-eastern states, hilly states and states facing law and order situations, natural calamities at an existing rate of Rs 3,400 per quintal

Reason given by Central Govt. for changes

- The rationale given by the FCI is that the quantities have been reduced this time "to accommodate more small and marginal buyers and to ensure wider reach of the scheme".
    - Due to global supply chain shocks like the Russia-Ukraine conflict and hampered production at home, retail food inflation has risen sharply.
    - FCI contends this move will allow the supplies to the general public immediately.
    - The objective behind the move is also to curb retail prices as allowing smaller bids should ideally break monopolies of bulk buyers, allowing more competitive bids by small buyers.
- Another reason for the move is to meet the FCI's food security obligations because in recent years, production of agriculture crops was affected due to untimely rains, rise in temperature in the month of March and so on, making it incumbent upon the FCI to release its stocks "judicious manner under the OMSS" so that the overall stock position is maintained at a comfortable level".
- The Centre has explained the discontinuation of OMMS grains to the states by giving the same rationale. "In order to ensure that the inflationary trends are kept under control while ensuring adequate stock levels in the Central pool, it has been decided to exclude State governments from the ambit of OMSS".

Significance of OMSS

- **Price stability:** It is essential to the market's continued price stability. It contributes to the regulation of food grain prices, minimizing excessive changes and guaranteeing affordability for customers, by occasionally selling excess grains at predetermined prices.
- **Surplus Management:** It will help in surplus management. FCI can efficiently manage excess food grains from the central pool, mostly wheat and rice. OMSS can help to avoid waste and maintain ideal stock levels by selling these extra grains on the open market.
- **Market competition:** It promotes market competition by allowing various entities, including traders, bulk consumers, and retail chains, to participate in e-auctions and purchase food grains. It will help to create competitive atmosphere in market which helps the consumers.
- **Balance between large and Small & Marginal Buyers:** Now small and marginal purchasers are to be accommodated by the most recent changes to the OMSS implementation, which also include a decrease in the maximum amount per bid. The scheme will help to advance inclusion, empower smaller market players, and eliminate monopolies held by bulk buyers by encouraging their involvement.
- **Provide Food security:** It will help to provide food security by market competition, price stability and reduce wastage of grains. Proper maintenance of stocks under OMSS will ensures that the eligible population, particularly marginalized sections of society, has access to an adequate supply of essential food grains, such as wheat and rice, at affordable prices.

Karnataka vs. Centre row over free rice scheme

A political brawl has developed over the Centre's unwillingness to provide additional rice to Karnataka for the newly elected government's flagship Anna Bhagya scheme.

About Anna Bhagya scheme

The Anna Bhagya Scheme is the Karnataka government's free rice scheme, under which people belonging to the BPL category have been promised 10 Kg rice every month.

Arguments of Karnataka Govt.

State govt. has claimed that the Centre "denied" rice to Karnataka despite having adequate stock "to create problem and scuttle the scheme."

Karnataka govt. claimed that central govt.'s move is politically motivated.

Arguments of central govt.

According to central govt. the decision was taken to stabilise rising prices.

According to GoI, the Government is already providing food grains for 80 crore people. Additionally, 60 crore consumers need to be taken care of. OMSS operations would be carried out in the interest of those 60-crore people so that inflation remains under control for the rest of the country.

Challenges for OMSS

- **Low buyer demand:** In the e-auction conducted in July 2023, the FCI received bids for only 170 MT rice against a quantity of 3.86 lakh MT on offer.
- **Issues related to delivery:** The OMSS faces logistical difficulties when dealing with food grain quality, handling, and transportation issues. These difficulties may cause delays and lower client satisfaction.
- **Limited impact on market price stabilization:** OMSS impact on stabilizing market prices is limited because it accounts for only a fraction of the total domestic food grain demand and supply. FCI only

sells a portion of its holdings through OMSS. Whereas the majority of grains are distributed through the Targeted Public Distribution System (TPDS) and Other Benefits Systems (OWS).

- **Political disputes:** Political disputes affect its main objective of welfare of poor population of the country through politically motivated amendments.

Way forward

- **Consultation with stakeholders:** To achieve the goal of SDG 1 (zero hunger) every stake holder like states, policymakers, experts, FCI etc. should be consulted before any changes in scheme.
- **Strengthening of state level procurement:** State govt. should strengthen the state level procurement to reduce the dependence on central govt. scheme like OMSS.
- **Collaboration &Co-ordination:** Collaboration & coordination between centre and states is very important to achieve the goal of schemes like OMSS, Cooperative federalism and welfare of state.

Sugar subsidies dispute and WTO

News Excerpt

India is negotiating with Brazil to resolve a sugar dispute at the World Trade Organisation (WTO). In 2019, Brazil, Australia and Guatemala dragged India into the WTO's dispute settlement mechanism alleging that India's sugar subsidies to farmers are inconsistent with global trade rules.

- India emerged as the world's largest producer and consumer of sugar and the world's 2nd largest exporter of sugar in 2021-22 season.

- Brazil is the largest exporter of sugar in the world

Key points of the Issue

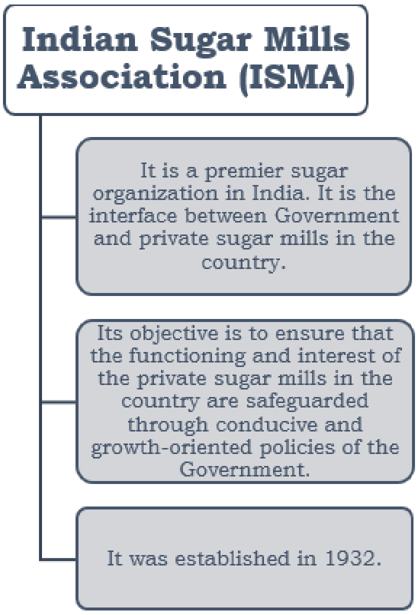
- Brazil, Australia and Guatemala sought consultations with India, concerned about domestic support measures to agricultural producers of sugarcane and sugar.
- They alleged that India for five years, from 2014-15 to 2018-19, provided domestic support in excess of the permissible 10% of the total value of production— thus, inconsistent with the norms laid out under the organisation's Agreement on Agriculture.
- The countries argued that the minimum prices of sugarcane and sugar, specifically fair and remunerative prices (FRP) alongside specific states enforcing higher minimum prices, incentivised Indian sugarcane farmers.
  - This led to increased domestic production of sugarcane and sugar.
  - It contended that with production exceeding domestic demand, and ensuing increases in sugar stocks, the government also intervened in the market with assistance programmes, thereby facilitating lowered prices for the commodity in the global market.
- The complainant also argued against India's mill-specific Minimum Indicative Export Quota (MIEQ) wherein sugar mills must export an allocated amount of sugar by the end of each season (October-September).
  - It alleged that certain support measures were dependent on compliance with the MIEQ, or otherwise dependent on export performance.
- WTO constituted a panel to study the allegations in October 2019, which submitted its report in December 2021.

WTO's Conclusion

- The multilateral trade organisation held that India was acting inconsistently with its obligations under Article 7.2 (b) of the Agreements on Agriculture (AoA) as far as the domestic support was concerned.
  - This article stipulates that members cannot provide support in excess of the relevant de minimis standards (For developing states it is 10 per cent).
- It held that the 'price support' would entail "assistance from a government or other official body in maintaining prices at a certain level regardless of supply or demand." In FRP, while the

prices may appear to be paid by the mills, they are set by the government.

- The WTO asked India to withdraw its exports subsidies within 120 days from the circulation of the report. It also sought that the country withdraw the proscribed subsidies (as per the multilateral organisation's rules) meant for production assistance, buffer stock, marketing and transportation along with the duty-free import authorisation (DFIA) scheme.



- The report concluded that India was providing "lump sum assistance" for expenses emanating on account of sugar towards maximum admissible export quality or MAEQ (which works as a marketing assistance listing upper limit for exports) of sugar mills for the sugar season 2019-20.
    - It broadly covered marketing including handling, quality upgradation, debagging and re-bagging and other processing costs.

Three Boxes		
GREEN BOX	**BLUE BOX**	**AMBER BOX**
Permitted subsidies	Aim to limit production	Subsidies to be reduced and removed
Not targeted at particular products and not include direct income supports for farmers	Only production limiting subsidies are allowed	Linked to production level
No limit is fixed	No limit is fixed	WTO fixed the limit
Little or no distortion	Don't increase with production	Excessive production trade distort
May include environmental protection, regional development, R&D or farmer training programs etc.	Cover payments based on acreage, yield or number of Livestock in a base year	Input subsidies-electricity, seeds, fertilizers, imigation etc

India's Defence

- The Indian government stated the panel had made "certain erroneous findings" about the schemes meant to support sugarcane producers and exports. It held the findings of the panel were "completely unacceptable to India".
- According to indian govt., the panel's findings are unreasoned and not supported by the WTO rules. The panel has also evaded key issues which it was obliged to determine. Similarly, the panel's findings on alleged export subsidies undermine logic and rationale.
- The measures in contention were within its obligations under the WTO agreements, and that there would be no impact on the country's existing policy measures in the sector.
- India appealed that the panel "grossly errs" in holding that the MAEQ were of the "same essence" as other alleged export subsidies. "India considers that the panel has cherry-picked a few broad similarities while ignoring the differences between MAEQ and other alleged exports subsidy measures.
- Further, it contended that FRP and state-advised prices do not constitute 'applied administrative prices', that is, prices for agricultural products determined by administrative actions of the government and not market forces.

Sugar production & Export in India

- India is not considering sugar exports until at least the first half of the next season.
- Because the government was worried that El Nino weather pattern could reduce rainfall and dent production.
- India had allowed exports of 6.1 million tonnes for the ongoing season. With the quota exhausted, it is presently not exporting sugar.
- Industry body Indian Sugar Mills Association (ISMA) lowered its production estimates to 32.8 million tonnes for the ongoing sugar season, owing to an output drop in Maharashtra and a marginal increase in Uttar Pradesh.
- Annual domestic consumption is pegged at 27.5 million tonnes.
- For comparison, India had exported 11 million tonnes in the year-ago period. The production stood at 35.9 million tonnes.
- These situations translate to potential grounds for price uncertainty domestically and outside; especially since more demand for sugar rises during summer for producing aerated beverages and ice creams.

- It was before the consultations that India had argued that market price support could only exist when the government or its agents pay or procure the product.

- Thus, it would be incorrect to conclude that India provided any market price support to sugarcane producers.

Concerns about the WTO ruling

- It may potentially spiral on two fronts—
    - Agricultural subsidies in the broader ecosystem and
    - Potential uncertainty about its prices in lieu of expected lower production.
- Interestingly, the appellate body of the WTO is not functioning because of differences among member countries to appoint members in this body. Several disputes are already pending with the appellate body. The US has been blocking the appointment of the members.

Way forward

- Bilateral consultation is the first step to resolve a dispute. Hence, Indian govt. should organise bilateral talk related to sugar production and export with the concerned nations.
- All the WTO member should work together for the appointment of WTO appellate body so that appeal can be resolved.

Dr. M.S. Swaminathan Contributions

News excerpt:

Renowned agricultural scientist M.S. Swaminathan, known as the father of India's Green Revolution, recently passed away at the age of 98.

Born in then Madras, now Tamil Nadu , in 1925, Swaminathan studied Zoology but shifted to Agriculture after taking stock of India's wartime food shortages and the Bengal famine, both of which affected him deeply.

Contributions of MS Swaminathan:

- **Green Revolution**: He was instrumental in spreading high-yielding varieties of rice and wheat, which transformed India from being dependent on food imports to being self-sufficient by the mid-1970s.
- **Advocacy:** He advocated policies to support the adoption of modern agricultural practices and influenced policy discussions at both the **national and international levels**.

Benefits of Green Revolution:

Employment generation
Doubling of Production
Food Security
High Yield Seeds availability leads to better food buffer
Poverty Alleviation
Economic development

- **Educating and training farmers**: He understood the importance of educating and training farmers in **modern agricultural techniques**.
    - For this, he established Agricultural Extension Programs to disseminate knowledge about improved farming practices and the use of HYV seeds.
- **Conserving agricultural biodiversity:** He advocated for conserving agricultural biodiversity through the **preservation of traditional crop varieties and the sustainable use of genetic resources** to ensure long-term food security.
- **Reducing hunger:** His work contributed significantly **to reducing hunger and improving food security in India**. The increased agricultural productivity resulting from the Green Revolution helped to feed a rapidly growing population.

Contribution as an Institution Builder:

- **Modernizing ICAR**: He worked on strengthening and modernizing the Indian Council of Agricultural Research (ICAR) and its affiliated institutions, making them more **research-oriented and responsive to the needs of farmers.**
- **National Commission on Farmers**: In November 2004, the Union government made Dr Swaminathan chairman of the National Commission on Farmers. Popularly known as the **Swaminathan Commission**, the panel submitted five reports in two years to the Centre. Its main recommendation was that the Minimum Support Price should be at least 50% more than the weighted average cost of production.
- **Research and Education** in Agriculture:
    - He played a role in and promoting the setting up of the **International Crop Research Institute for the Semi-Arid Tropics** in Hyderabad, India; the **International Board for Plant Genetic Resources (now known as Bioversity International)** in Italy and the **International Council for Research in Agro-Forestry** in Kenya.
- He helped to build and develop several institutions and provided research support in **China, Vietnam, Myanmar, Thailand, Sri Lanka, Pakistan, Iran, and Cambodia.**

Today, the world is talking about **millet (shree anna)** as a superfood. But Swaminathan had encouraged discourse around millets since the 1990s.

Dr. Swaminathan has left a **lasting legacy with his leadership and advocacy in agricultural research and farmer empowerment** which were pivotal in the **success of the Green Revolution** in India and its subsequent impact on global agriculture.

Rise in Horticulture Output

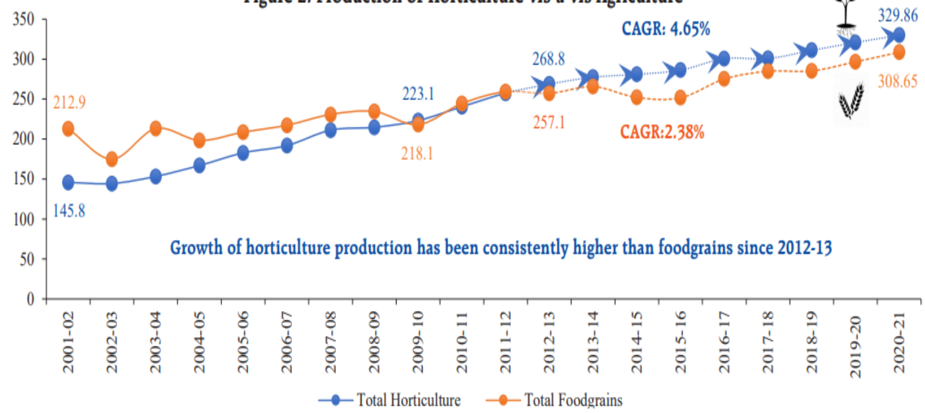
News Excerpt:

India's horticulture production is estimated to have risen annually by 1.37 % to 351.92 million tonnes in 2022-23 due to better productivity.

Status of Horticulture in India:

- It contributes around **30.4%** to GDP while using only **13.1%** of the gross **cropped area**, making it a significant player in India's agricultural growth.
- The productivity of horticulture has increased significantly from **8.8 tonnes per hectare (TPH)** in 2001-02 to **12.1** TPH in 2020-21.
- India has emerged as a **world leader** in producing various fruits like mango, banana, guava, and papaya. It is the second-largest producer of fruits and vegetables.
- Among the new crops, kiwi, gherkins, kinnow, date palm, and oil palm have been successfully introduced **for commercial cultivation in the country.**
- Bangladesh, UAE, Nepal, Netherlands, Malaysia, Sri Lanka, the UK, Oman, and Qatar are India's major export destinations for fresh fruits and vegetables.

Figure 2: Production of Horticulture *vis-a-vis* Agriculture



What is Horticulture?

- Horticulture is a field of plant agriculture focusing on garden crops such as fruits, vegetables, and ornamental plants.
- This encompasses the growth of a wide range of items, such as fruits, vegetables, nuts, seeds, herbs, sprouts, mushrooms, algae, flowers, seaweeds, and non-edible plants like grass, ornamental trees, and decorative plants.
- Additionally, horticulture **extends to activities like plant preservation and the restoration of landscapes,** as well as **arboriculture**, which focuses on the care of ornamental trees and lawns.

Significance of horticulture in India:

- **Rural development**: It provides a way to generate income and employment, particularly for **women** and the **marginalized sections** of society.
- **Source of foreign exchange:** It is also an important source of foreign exchange for India, with a significant portion of the country's horticultural produce being exported to other countries.
- **Food and nutrition security**: Horticultural crops, such as vitamins and minerals, play a vital role in providing food and nutritional security.

Challenges:

- **Post-harvest losses**: The post-harvest period refers to the time from when the food is harvested until it reaches retail markets for consumption. This time lag leads to significant losses in the quantity and quality of the produce. In 2022, India lost **about 5–13% of its fruits and vegetables** between harvesting and consumption.
- **Logistical issues**: India's inadequate cold storage & warehousing, rail, road, and logistics infrastructure impacts the transport and storage of horticultural products.
- **Market Access:** Lack of **efficient marketing** channels challenges reaching consumers and **export markets**.
- **Biotic Stress**: The states in India face pest and disease challenges due to their unique agro-ecological conditions. E.g.- Pests like the **Assam tea mosquito bug** and diseases like **blister blight** affect tea and other horticultural crops.
- **Shifting Climatic patterns and water crisis:** The horticultural crops are susceptible to climate conditions. **Erratic monsoons**, extreme weather events, and water crises in **west, central,** and parts of **peninsular India** result in crop failures and reduced yields.

Way Forward:

Enhancing horticulture in India necessitates a comprehensive strategy encompassing government initiatives, technological progress, farmer involvement, and private sector engagement. Further, prioritizing sustainability, product quality, and market accessibility is crucial for unleashing horticultural crop potential.

- Diversification of Crops
- Export Promotion
- Invest in Research
- Develop Infrastructure
- Financial Support
- Promote Contract Farming

Agricultural losses due to extreme weather events

News Excerpt:

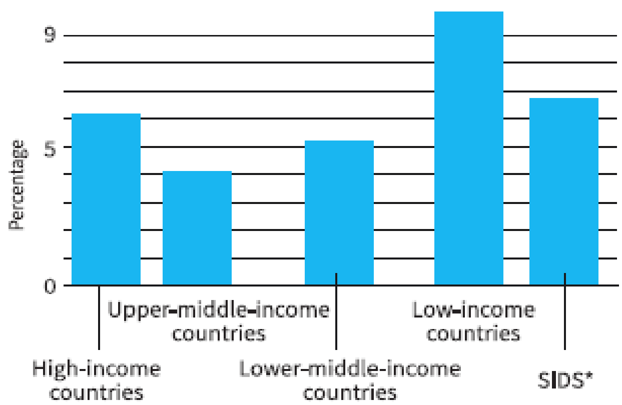
A report by **the Food and Agriculture Organization (FAO)** found that the frequency of extreme disaster events has risen significantly over the past 50 years.

Details from the report:

- The report titled **'The Impact of Disaster on Agriculture and Food Security'** found that disaster events are becoming more **frequent** and **severe**, and their **impact** is also expected to worsen.
- The year **2023** ended the **warmest decade** on record, marked by unprecedented extreme **weather events** and **large-scale** disasters.
- Ongoing **conflicts** and the **COVID-19** pandemic worsened these catastrophes.
- The **1970s** saw approximately **100** disaster events per year. In the last 20 years, that number has increased to about **400** globally.

Impact of extreme weather events on world agriculture:

The chart shows total agricultural losses as a share of agricultural GDP by country groups (1991-2021)



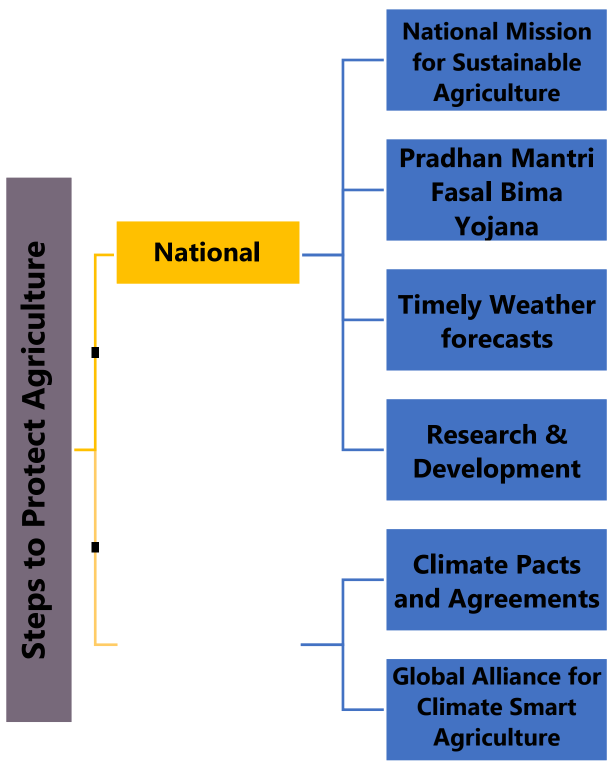
- Agricultural activities and livelihoods rely heavily on environmental conditions, natural resources, and ecosystems. Globally, the agriculture sector faces growing threats from hazards such as **flooding, drought, and environmental degradation**.
- For instance, in **Pakistan**, exceptional monsoon rainfalls in 2022 led to **nearly $4 billion in damages** to the agricultural sector.
- In the **U.S.**, the National Oceanic and Atmospheric Administration **estimated over $21.4 billion** in crop and rangeland **losses in 2022.**
- **Data from 88 Post Disaster Needs Assessments surveys (PDNAs)** conducted from 2007 to 2022 in 60 countries indicated that agricultural losses constituted an average of **23%** of the overall impact of disasters across all sectors.
- PDNAs revealed that more **than 65% of losses** attributed to drought affected the agricultural sector, while **floods**, **storms, cyclones, and volcanic activities** each accounted for **roughly 20%.**

Region-wise impact: **Asia** bore the largest share of economic losses **(45%),** while **Africa, Europe**, and the **Americas** displayed similar orders of magnitude. **Oceania** experienced the lowest total losses.

- In absolute terms, **high-income, lower-middle-income,** and **upper-middle-income countries** reported higher losses, while low-income countries and **Small Island Developing States** experienced lower levels.
- However, when considering **losses relative to agricultural value added,** low-income countries suffered losses more than double those of upper-middle-income countries on average.

Impact on Indian agriculture:

- **Loss of cropping areas**: In the last six years, the country lost **33.9 million hectares** of cropped area due to **floods** and excess rains and **35 million hectares** due to **drought.**
- **The threat of mass hunger**: The **IFPRI Global Food Policy 2022**, climate change and food systems, India's food production **could drop by 16 per cent**, and the number of those at risk of hunger could be **increased by 23 percent** due to climate change.
- **Drop in yield of crops**: Coastal regions are prone to cyclones and flooding, which destroys **rice** and **jute** crops in regions such as **West Bengal.** Also, unpredictable monsoons have caused fluctuations in crop yields, particularly in cash crops like **cotton and sugarcane**.



- **Effects on Water Availability:** Reduced monsoon rainfall, cold waves, and prolonged dry spells have affected the water availability for irrigation in **UP, Bihar, Punjab, and Haryana**, impacting crops like **wheat and rice**.
- **Landslides and glacial melting:** In states such as **Himachal Pradesh and Uttarakhand,** climate change-induced glacial melting and increased landslides affect **apples** and other **horticultural** produce.

Way forward:

- **Sustainable farming practices**:
  - **Crop diversification:** To **reduce dependence on a few staples**, lessening extreme weather risks.
  - **Resilient crop varieties**: Promote crops resistant to extreme weather like drought and heat.
  - **Climate change mitigation**: Prioritize adaptation and tackle climate change at its source by reducing greenhouse gas emissions through energy efficiency and renewables.
- **International collaboration**: Cooperate globally for climate adaptation and agriculture best practice sharing for food security.
- **Water management**: Allocate resources to enhance irrigation and water management for efficient water use, minimizing crop loss from drought.

Nutrient-based subsidy

News Excerpt:

Cabinet approved nutrient-based fertilizer subsidy for the **Rabi** season 2023-24

About

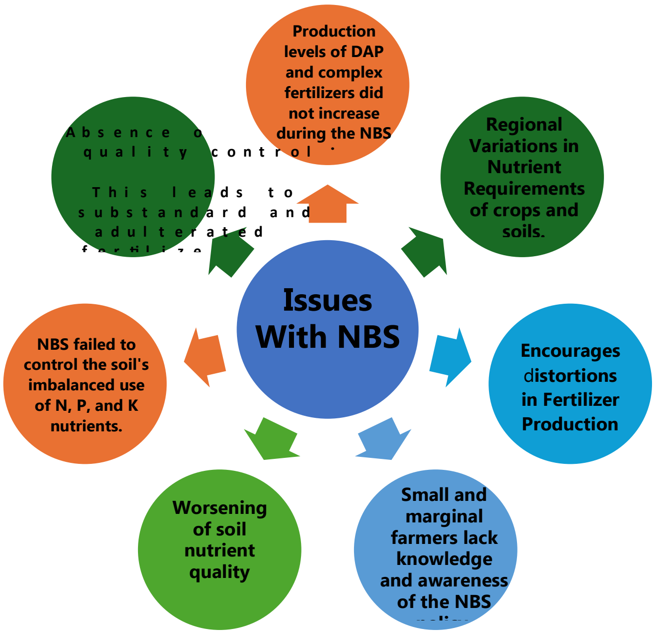
- The Union Cabinet approved Rs. 22,303 crore subsidies on **P&K (Phosphorus and Potassium) fertilizers** for the current Rabi season to ensure farmers continue to get soil nutrients at reasonable rates despite **high global prices.**
- The Centre will provide farmers with **25 grades/types** of P&K fertilizers at subsidized prices through fertilizer manufacturers/importers.
  - The current NBS Policy covers 25 grades of P&K fertilizers, namely **DAP, MAP, TSP, MOP, Ammonium Sulphate, SSP, PDM, and other 18 grades of NPKS** complex fertilizers.
- The revised rates are lower than what was approved for the **kharif season**. The Union Cabinet had approved a Rs 1.08 lakh crore fertilizer subsidy for the 2023-24 Kharif season.
- The Nutrient-Based Subsidy Scheme govern**s the subsidy on P&K fertilize**rs.

Fertilizer industry in India:

- **India's Fertilizer Market** was valued at INR 990.40 Bn. in 2022 and is expected to reach INR 1459.95 Bn. by 2029, at a **CAGR of 5.7%.**
- **Types of Fertilizers**: The Indian fertilizer industry primarily **produces Nitrogen, phosphorus, and potassium (NPK)**. Nitrogenous fertilizers are the most widely used, followed by phosphatic and potassic fertilizers.
- **Fertilizer Subsidy**: The Indian government provides subsidies to make fertilizers affordable for farmers. This subsidy is a significant financial burden on the government and ensures farmers can access reasonably priced fertilisers.
- In May **2015**, the Centre made it mandatory to coat all indigenously manufactured and imported **urea with neem oil**. This was followed by replacing 50-kg bags with 45-kg ones in March 2018 and the launch of liquid '**Nano Urea'** by the Indian Farmers' Fertiliser Cooperative (IFFCO) in June 2021.

What is Nutrient-based subsidy (NBS)?

- The **NBS** Policy implied that subsidies would be fixed for each fertiliser nutrient. It has been instrumental in ensuring the availability of essential nutrients to farmers at subsidized prices since 1 April **2010**.
- Based on the **nutrients (N, P, K&S),** the fertilizers are provided to the farmers at the subsidized rate under NBS.
- The government has now approved the revision in NBS rates to provide 25 grades of P&K fertilizers to farmers during the rabi and kharif seasons.
- It will ensure the availability of **diammonium phosphate DAP** and other P&K fertilizers to farmers at subsidized, affordable, and reasonable prices during the Kharif season.
- This will enable farmers to access essential fertilizers necessary for their agricultural activities.



- The decision rationalizes the subsidy on P&K fertilizers, ensuring effective and efficient utilization of government resources.

The objective of NBS:

- To ensure the balanced application of fertilizers
- To improve the growth of the indigenous fertilizer industry
- To contain the subsidy bill
- To leave open MRP to be fixed by fertilizer manufacturers/importers at a reasonable level.

Way Forward:

- **Price Rationalization**: To reduce the overuse of certain fertilizers and encourage the use of more sustainable and environment-friendly alternatives.
- **Soil Health:**
    - **Crop diversification** to reduce the need for certain nutrients.
    - **Promote soil health cards** to provide farmers with information about the specific nutrient requirements of their soil.
- **Promote organic farming practices:** To reduce the reliance on chemical fertilizers.
- **Strengthen regulation:** To prevent adulteration and ensure the quality of fertilizers.
- **Implement targeted subsidies**: To ensure that they benefit small and marginalized farmers more effectively.

Basic Animal Husbandry Statistics 2023

News Excerpt:

Basic Animal Husbandry Statistics Report 2023 comprising Milk, Egg, Meat, and Wool production was released by the **Ministry of Fisheries, Animal Husbandry & Dairying.**

> **Animal Husbandry:**
> It is the branch of agriculture that deals with animals raised for meat, fibre, milk, or other products. It includes day-to-day care, selective breeding, and the raising of livestock.

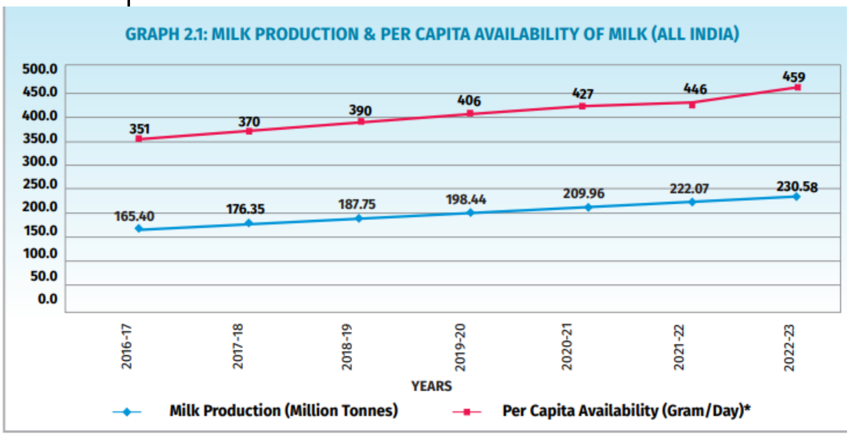
About the report:

- Livestock production is estimated **annually** based on the Integrated Sample Survey (ISS) outcomes, whose survey methodology is designed by ICAR- Indian Agricultural Statistics Research Institute (ICAR-IASRI).
- Integrated Sample Survey is the **only scheme** through which considerable data, particularly on the production estimate of **Major Livestock Products (MLPs) viz. Milk, Eggs, Meat, and Wool** are being generated for policy formulation in the livestock sector.
- **This survey is conducted from March to February. The entire period of one year is divided into three Seasons of 4 months. These Seasons are:**
- The 2023 report is based on the data from 1st March 2022 to 28th February 2023.

The **estimates of 4 products, i.e. Milk, Egg, Meat, and Wool, for the year 2022-23** are summarized below:

1. **Milk Production:**

- The total milk production in the country is estimated at 230.58 million tonnes (2022-23), an increase of 3.83% over the previous year.
    - According to production data from the Food and Agriculture Organization Corporate Statistical Database (FAOSTAT), **India ranks 1st in the world in terms of total milk production.** Milk production in India has registered a fifty-one per cent increase during the last eight years.



*Based on Projected Human Population according to Population Census-2011

Top Milk Producing States:

In terms of Production, Uttar Pradesh (15.72 %)>Rajasthan (14.44 %)>Madhya Pradesh (8.73 %)>Gujarat (7.49 %) > Andhra Pradesh (6.70 %). **Together, they contribute 53.08% of the total milk production in the country.**

2. **Egg Production:**

    - The total Egg production in the country has been estimated to be 138.38 billion during 2022-23, an annual increase of 6.77% from the previous year.
    - **India ranks 3rd in the world in terms of total Egg production (Source: FAO).**

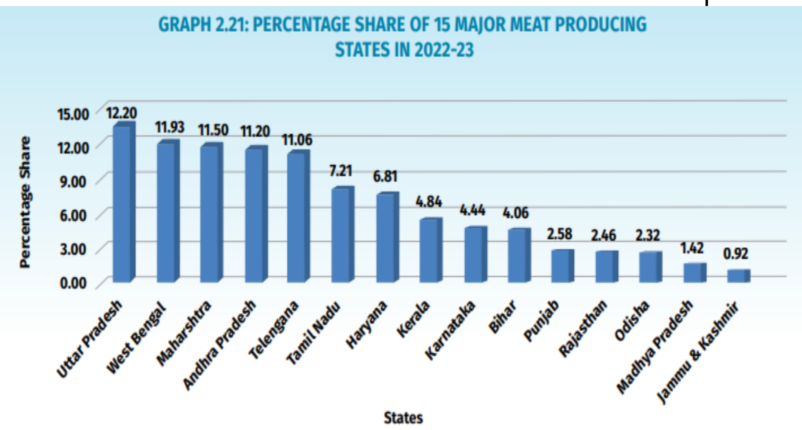
Top Egg Producing State: In terms of **Production:** Andhra Pradesh (20.13 %)> Tamil Nadu (15.58 %)> Telangana (12.77 %)> West Bengal (9.94%) > Karnataka (6.51 %). **Together, they contribute 64.93% of the total egg production in the country.**

3. **Meat Production:**

    - The total Meat production in the country is estimated at **9.77 million tonnes, an annual increase of 5.13% over the previous year.**
    - **India ranks 8th in the world in terms of total Meat production (Source: FAO).**

Top Meat Producing States:

In terms of **production:** Uttar Pradesh (12.20 %) >West Bengal (11.93 %)> Maharashtra (11.50 %)> Andhra Pradesh (11.20 %) > Telangana (11.06 %).

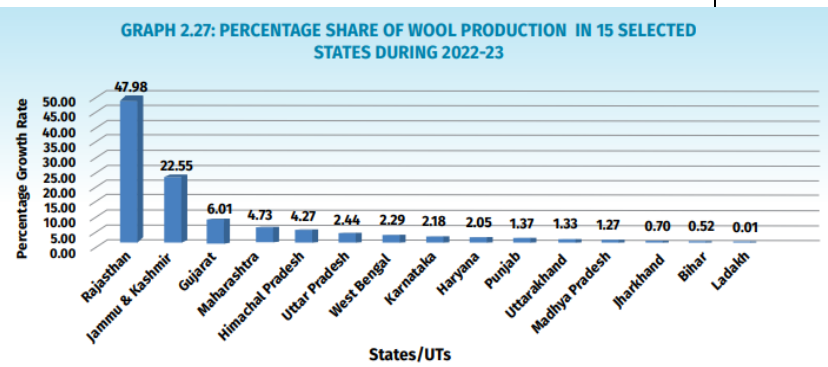


4. Wool Production:

The total Wool production in the country is estimated at 33.61 million kg, with an annual increase of 2.12% over the previous year.

Top Wool-Producing States:

In terms of **Production:** Rajasthan (47.98%)>Jammu & Kashmir (22.55%)> Gujarat (6.01%),>Maharashtra (4.73%) >Himachal Pradesh (4.27%). **They contribute 85.54% of total wool production in the country.**



Way Forward:

- This survey fulfils the need for the **timely availability of reliable and updated data** relating to various livestock indicators, which will further help in evolving, monitoring, and evaluating various **developmental schemes** in this sector.
- It also contributes to the **stock of time series data** on the production of milk, meat, egg, and wool, which may be used in **research and policy-making.**

Farming's impact on the environment

News Excerpt:

The increasing **demand** for **agricultural products** is causing significant **social** and **environmental impacts** worldwide.

Current scenario - Impact of agriculture:

- The expansion of international trade has created **global supply chains**, leading to impacts like **carbon emissions**, **biodiversity loss**, **freshwater depletion**, **soil degradation**, and **labour rights issues**.
  - **India**, a global anchor of agricultural trade, has experienced significant social and economic **development**, leading to an increasing demand and supply of these products.
  - India's **vast land areas** are used to service domestic and international demand for **grains**, **fruits**, and **vegetables**, putting pressure on national soil and water resources.

  Food-based impact accounting:
  - Addressing **demand-supply dynamics** is crucial for international environmental governance and achieving the **U.N. Sustainable Development Goals** and other **climate action** and **biodiversity conservation** goals.
- The **current approach, production-based accounting,** has limitations in managing **leaks**, **accountability,** and ensuring **equity** and **justice** among producers and consumers.
  - **Consumption-based accounting** has emerged as an **alternative**.

Consumption-based accounting:

- It is a method that accounts for the social and environmental impacts of **production** and **trade**, directing responsibility to the final products and consumers.
- It encourages **sustainable consumption practices** as a form of environmental action and impact coverage.

Demand perspective of Consumption-based accounting:

- This approach focuses on the **responsibility** of consumers for the consequences of production processes in developed economies.
- This approach **decouples population and emissions** by shifting substantial impacts from emerging markets like India to less-populous, economically developed countries.
- It highlights the responsibility of industrialized states to mitigate the impact and the rights of developing economies not to carry an excessive burden.
- It also accounts for the growing element of international trade, **trilateral supply chains**, where products are produced, processed, and consumed in multiple countries.

Supply perspective of Consumption-based accounting:

- This approach can encourage **cleaner production** by encouraging producer countries to reduce their exports' **environmental footprint**.

- This also boosts **living standards** in agricultural supply chains, ensuring access to foreign markets.
- The approach can also address production system leaks, where production is often transferred to **less stringent jurisdictions** like **India**, thereby improving the overall environmental impact.

Consumption-based accounting vis-a-vis Sustainable development:

- Consumption-based accounting is used to **estimate carbon emissions** and **virtual water use**, but it has only recently gained traction in policy-making.
    - For ex., the **European Commission** has taken steps to ensure products consumed in the EU do not contribute to deforestation in their country of origin, which is expected to reduce carbon emissions and biodiversity loss.
- **India,** a major consumer of agricultural and forestry products, has a unique situation.
    - Major developed economies have an environmental footprint in India due to their consumption of Indian agricultural produce.
    - Conversely, India's own **deforestation footprint** outside its borders has increased over the last two decades and is rapidly growing. However, it remains below that of several **G-20 countries** on a per-capita basis.

Way Forward:

- Consumption-based emissions accounting can identify the impact of domestic and foreign agricultural demand, **facilitating an agreement** on global environmental action by involving producers and consumers.
- This approach allows **developed economies to take responsibility** for some of the impact, promoting **coordinated action** and allowing **developing economies** like India to **improve their agricultural systems.**
- It also helps **diagnose impact-intensive consumption patterns**.

India's Demand and Supply for Agricultural Commodities Towards 2030

News Excerpt:

According to agricultural economists, **India** is **expected** to face continued output **shortfalls** in **key protein sources**, edible oils, and fruits in the **next seven years.**

About the Report:

- Demand and Supply projections are crucial for **formulating** farsighted agricultural and **food policies** to sustain **food production**, ensure **food security** and for the efficient functioning of food systems while controlling for external factors such as changing **consumption basket**, **taste**, and **preferences**, changing **population growth** and **income growth**.
- The report was **published by** the National Bank for Agriculture and Rural Development **(NABARD)** and the Indian Council for Research on International Economic Relations **(ICRIER).**

Key findings of The Report:

- Commodities like **oilseed, pulses and fruits** will experience a **supply and demand gap** in the coming years.
    - Therefore, there is a **need** to increase the level of **production and productivity of oilseeds, pulses, and fruits** since their demand in the future shows an increasing trend. "
- As **per capita incomes rise,** people's consumption baskets tend to diversify towards nutritious and high-valued commodities, including fruits, vegetables, and dairy products, and away from staples such as rice and cereals.
    - Demand growth for **non-cereals and high-valued commodities** is expected to exceed the population growth rate and cereal commodities' growth in coming years.

Report on the commodities:

Food Items	Gap=supply – Demand		
	2020-21	**2025-26**	**2030-31**
Rice	15.8	22.5	37.7
Wheat	7.6	15.4	25.5
Coarse Cereals	0.5	3.2	6.4
Cereals	23.9	44.2	69.6
Pulses	-3.9	-2.1	0.4
Foodgrains	20.0	42.0	70.0
Oilseeds	-0.1	-3.0	-6.0
Milk	2.5	31.7	76.2
Fruits	-0.3	4.0	10.6
Vegetables	1.6	8.3	18.4

Demand Projections of Agricultural Commodities up to 2030–31:

In this section, There is an exercise to project ex-ante demand for rice, wheat, coarse cereals, cereals, pulses, foodgrains, sugar, oilseeds, fruits, vegetables, milk, and meat till 2019-20 to ascertain the accuracy of the methodology used in generating the forecast in the future.

- The base year for ex-ante prediction of fruits and vegetables **was revised** as there has been a substantial increase in production of horticulture commodities after 2005-06, particularly after the implementation of the **National Horticulture Mission (NHM) 2005-06.**
- **Similarly, the base year for meat and milk** was revised due to a significant increase in the value of

livestock output during the **11th FYP,** which was primarily driven by the demand for protein food.

- In addition, the Government of India launched the **National Livestock Mission during the 12th FYP to encourage the growth of the livestock sector (Department of Animal Husbandry, Dairying and Fisheries, Annual Report 2019-20).**

- **Cereal demand** will increase by the end of 2030-31 from **253.97 MT in the base year** to **260.6 MT under 4.1% PCY growth** and **254.7 MT under 6.1**% PCY growth.
- The projections for **pulses** during 2030-31 range **between 33.7-35.3 MT** under the alternative PCY growth scenarios.
- The **livestock product** is estimated at **283-327.6 MT for milk** and **11-12.9 MT for mea**t in **2030-31.**
- **Demand for fruits and vegetables will increase from 289.32 MT** in the **base year (2019-20)** to **431.1 MT** under the assumption of **4.1% Per Capita Income (PCY)** growth and **501.8 MT under 6.1% PCY growth** by the end of **2030-31.**

Supply projections of Agricultural Commodities up to 2030–31:

Like demand forecasts, various studies have forecasted the supply of agricultural commodities to compute if the country's food balance sheet will be in deficit/surplus in the near future, medium-term and long term.

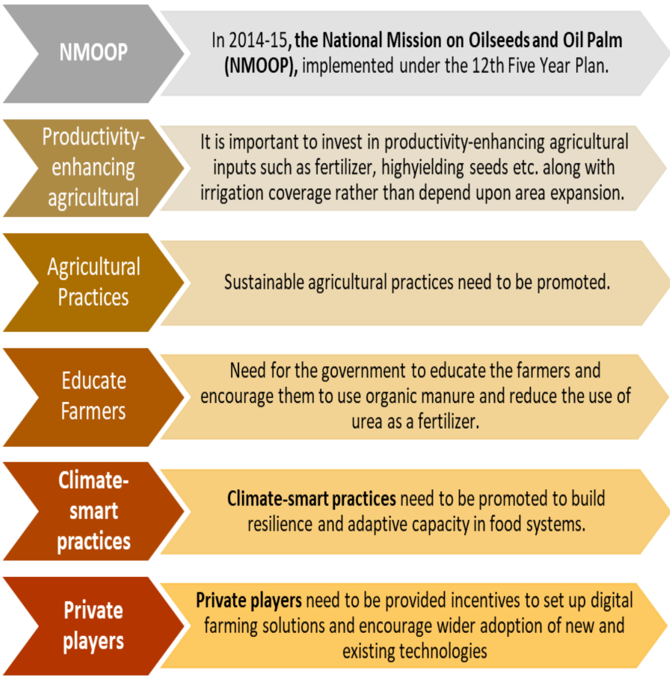
- For estimating the supply projection of agricultural commodities such as **rice, wheat, coarse cereals, cereals, pulses, foodgrains, oilseeds, fruits, and vegetables for the period between 2020-21 and 2030-31**, we use the base-level production and the past trend of average annual growth rates of actual output.
- The **cereals and foodgrain** supply is estimated to increase to 356.8 MT and 396.0 MT by 2030-31.
- If supply growth follows the last 15 years' trend, the pulse production will grow **to 39.2 million tonnes by 2030- 31.**
- The **milk production** between 2020-21 and 2030-31 is expected to increase from **197.9 MT in 2020-21 to 340.5 MT in 2030-31** and **from 197.3 to 328.8 MT** during the same period.
- If we consider that the **horticulture commodities** will follow the last 15 years, fruit production will increase to 150.9 MT, and vegetables will increase **to 282.5 MT by 2030-31.**

Demand and Supply Gap: A Concern

The gap between projected demand and supply of agricultural commodities, or in other words, a deficit in the food balance sheet, would result in higher imports to meet the domestic demand, which, in turn, leads to a huge import bill in the long run.

- Therefore, there is a **need to increase the level of production and productivity of oilseeds, pulses, and fruits** since their demand in the future shows an increasing trend.

Further steps for Reducing the Demand and Supply Gap:



Way Forward:

The report has called for policy attention to ensure a balance between domestic production and the absorption of these commodities, diversification towards high-value commodities that require major investments in market infrastructure, processing, and cold storage and warehousing facilities to build an efficient and reliable value chain. Such measures can significantly reduce food wastage, they underlined.

India's Great Grain Mystery

News Excerpt:

The economists and authors Jean Drèze and Christian Oldiges explore the perplexing factors contributing to the significant discrepancy between India's annual cereal production and consumption numbers.

Production-Consumption Discrepancy:

- According to the official Foodgrains Bulletin, cereal **production** (mainly rice and wheat) crossed **300 million tonnes** for the first time in 2022-23, reaching 304 million tonnes.
- The three-year average of annual **production** in the most recent years for which data are available (2020-21 to 2022-23) comes to 292 million tonnes — close to 300 million.

- Combining the second **India Human Development Survey (IHDS-2) and National Sample Survey (NSS)** data, the **consumption** requirements are only about **200 million tonnes.**
- The authors tried to account for the **difference of about 100 million tonnes** between production and consumption.

Indian Human Development Survey-II	National Sample Survey (NSS)
• The India Human Development Survey-II (IHDS-II), 2011-12 is a **nationally representative, multi-topic survey** of 42,152 households in 1,503 villages and 971 urban neighbourhoods across India. • These data are primarily **re-interviews of households** interviewed for IHDS-I in 2004-05. • Each **household's interviews covered health, education, employment, economic status, marriage, fertility, gender relations, social capital, village infrastructure, wage levels, and panchayat composition.** • The goal of IHDS is to document changes in the **daily lives of Indian households** in an era of **rapid transformation.**	• The National Sample Survey Office (NSSO), headed by a Director General, is responsible for conducting **large-scale sample surveys in diverse fields on an All-India basis.** • Primarily, data are collected through **nationwide household surveys** on various socio-economic subjects, etc. • NSSO also collects **data on rural and urban prices** and plays a significant role in improving crop statistics through supervision of the area enumeration and **crop estimation surveys** of the state agencies. • It also maintains a frame of **urban area units** for use in sample surveys in urban areas.

Per Capita Cereal Consumption (PCCC) Trends:

- The PCCC trends in India reveal a perplexing scenario. The latest estimates from 2011-12 indicate figures of 11.6 kg per month (**India Human Development Survey-2)** and 10.7 kg per month (**National Sample Survey**).
- All data indicate a **steady decline in monthly PCCC** from the late 1970s onwards.
- The declining PCCC trend **challenges assumptions of rising poverty as the primary cause.** Instead, urbanization, increasing education levels, diversification of food intake, and potential reductions in activity levels are identified as factors contributing to this decline among **better-off sections of the population**.
- The evolving consumption patterns underscore the complexity of addressing the production-consumption gap in India's cereal economy.

Economic Survey's Estimates and SFW Allowance:

- The Economic Survey's "**Net Availability"** estimates are inflated by an insufficient **seed, feed, and wastage (SFW)** allowance. The traditional allowance of 12.5% consists of 5% for seed, 5% for feed, and 2.5% for wastage.
- Independent experts have argued for some time that the 5% norm for feed is too low.
- Doubling the feed allowance from 5% to 10% of gross production would reduce the cereal gap by 15 million tonnes or so. **A large gap would still remain.**

Other Uses of Cereals:

- Cereals are not solely consumed by households; they serve other purposes like **seed, animal feed, and industrial uses.**
- The mystery deepens whether cereal consumption is increasing due to the expansion of the public distribution system or if animal feed and industrial uses have surged, contributing to the gap.

Way Forward:

Reducing India's cereal gap offers a chance for comprehensive policy reform to promote **strategic agricultural output** diversification. To ensure sustainable practices and match production with changing consumption patterns, this challenge has the potential to spark creative solutions that will ultimately improve the food security and economic health of the country.

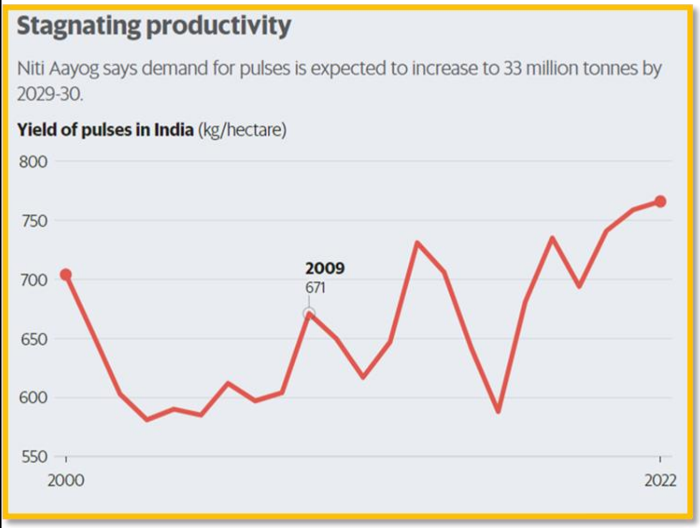
Can India become self-sufficient in producing dal?

News Excerpt:

The government has launched a portal to boost pulse production, targeting **self-sufficiency by 2027** through farmer support and trade policies.

Launch of the new portal:

- The government launched a new portal where farmers growing pulses can register and sell their produce directly to central agencies at the **minimum support price (MSP).**



- The promise of assured purchase through the portal addresses farmers' concerns about uncertain market conditions, encouraging increased cultivation.
- Economic benefits through direct sales at MSP may incentivize farmers to prioritize pulse cultivation over other crops. The move follows a spike in consumer prices, which were **18% higher year-on-year in November 2023.**
- Under the initiative, the produce of farmers who get themselves registered even before the production of toor dal will be procured by the **National Agricultural Cooperative Marketing Federation of India Ltd (NAFED)** and **National Cooperative Consumers' Federation of India (NCCF).**
- A similar facility will also be unveiled for other pulses such as urad (black gram) and masoor (lentil).
- The government's clear goal of becoming a **net exporter of pulses by 2027** demonstrates a commitment to reducing import dependency.

Pulses as Climate Smart Crop:

- Pulses are vital in developing sustainable food systems and are key players in food security and nutrition in India.
- The Global Pulse Confederation (GPC) emphasizes their significance in **developing sustainable food systems, addressing food security, and promoting nutrition.**
- Pulses are crucial in **reducing greenhouse gas emissions** and are adaptable to arid conditions, **requiring less water for cultivation.**
- As a superfood, pulses offer a **nutritious and healthy dietary choice.** Their **ability to fix nitrogen in the soil enhances soil fertility**, making them environmentally friendly.

Challenges in Making India self-sufficient in Pulses

Current Supply Gap and Import Dependency:

- **Production and Imports:** In the past few years production of pulses was estimated at 27-28 million tonnes. Imports were 2.5 million tonnes in 2022-23.
- **Shortfall Impact in some varieties:** The shortfall is mainly in varieties like Arhar (pigeon pea), where lower production led to a surge in prices and imports. Other than pigeon peas, India also imports black gram and lentils.
- **Government Intervention and Duty-Free Import:** To increase domestic availability and cool retail prices, the government has allowed the duty-free import of pigeon peas, black gram, and lentils till March 2025.
- **Balancing Act:** While a higher supply of imported pulses can help reduce local prices, it can also dissuade farmers from increasing the area under cultivation.
- **Projected Demand Surge:** The Niti Aayog says demand for pulses is expected to increase to 33 million tonnes by 2029-30.
- **Global seed giants:** The lack of interest from global seed giants in pulses indicates a potential hurdle, requiring India to invest more in public research for high-yielding varieties.

Yield Challenges & Farmer Preference for Other Crops:

- **MSP Influence on Crop Choice**: Farmers often hesitate to grow pulses due to their preference for crops like rice and wheat, which government agencies procure for the food security scheme at MSP.
- **Economic Incentives and Profitability Concerns:** Convincing farmers to shift from traditional crops to pulses may require addressing economic incentives and ensuring profitability.
- **Challenges with Specific Pulses:** Some pulses, like Arhar, are low-yield, long-duration crops, posing challenges to meeting the growing demand.

Related: Global Meet on Pulses:

- India will host a global meet on pulses in Delhi after 18 years. The 2023 convention was held in Sydney.
- The conference will feature discussions on global best practices of pulse production, processing and trade.
- Jointly organized by the National Agricultural Cooperative Marketing Federation of India Ltd. (NAFED) and the Global Pulse Confederation (GPC), the conference will see experts in the field sharing their views and experiences with various stakeholders and policymakers.

Recommendations of Arvind Subramanian on pulses

- In his 2016 report on incentivizing pulse production, Chief Economic Advisor **Dr. Arvind Subramanian** emphasized the need to boost domestic production to meet the rising demand.
- The report outlined key recommendations, including **increased procurement efforts for pulses like moong, toor, and urad at Minimum Support Prices (MSPs) and allocating additional funds for procurement agencies.**
- Efficient disposal policies, removal of stock limits and export bans, and revising MSPs for pulses were also proposed. Subramanian called for a review of the **Essential Commodities Act** to enhance market competitiveness.
- Additionally, he suggested establishing a **new institutional arrangement** for pulses, owned by the government and private players, to facilitate trading operations for various crops.

Way forward:

- **Promotion of portal:** The newly launched portal for direct procurement at minimum support prices should be widely promoted to encourage more farmers to cultivate pulses.
- **Encourage farmers:** Incentivizing pulse cultivation through subsidies on seeds, fertilizers, and other inputs can further motivate farmers.

- **Better varieties and trade policy**: Some pulses like Arhar are low-yield, long-duration crops. So, the farmers will also need high-yielding, climate-resilient varieties and a favourable trade policy.
- **Investment in R&D:** The government should invest in research and development to create high-yielding and climate-resilient pulse varieties.
- **Farmer's economic security:** Ensuring a stable MSP and establishing direct procurement mechanisms can provide economic security to farmers.

Crop Residue Management Guidelines 2023-24

News Excerpt:

The Government of India released Crop Residue Management (CRM) operational guidelines 2023-24 for **Uttar Pradesh, Haryana, Punjab, Madhya Pradesh, and the national capital territory (NCT) of Delhi** in July 2023.

Aim of the CRM guidelines:

- Objectives: To **reduce the amount of pollution generated when stubble is burnt** and to **encourage more industry-farmer participation in the agri-residue supply chain to support bioenergy plants**.
- Burning one tonne of paddy straw releases 3 kilograms of particulate matter, 60 kg CO, 1,460 kg CO_2, 199 kg ash, and 2 kg SO_2 into the environment.

Key highlights of the guidelines:

- Under the scheme, the **machinery required for biomass aggregation** includes **tractors, balers, and rakers,** which would need a **65% investment from the government, 25% from the industry** and the remaining **10% from the Farmer-Producer Organization (FPO).**
- According to the guidelines, the **indicative expenditure for setting up the paddy straw supply chain machinery** comes up to around **Rs 1 crore (for 3,000 tonnes of paddy straw per season)** and **Rs 1.8 crore (for 4,500 tonnes of paddy straw per season)**, out of which the **government will give subsidy** on the rounded off amount of **Rs 1.5 crore.**
- The **Department of Agriculture & Farmers Welfare (DA&FW)** and **State Agricultural Departments** have been chosen as the **central regulatory bodies for this scheme.**
- The scheme **aims to collect 1.5 million tonnes of paddy straw in the next three years** by establishing **333 collection centres** with a total financial assistance of Rs 600 crore.
- Centre has approved **financial assistance of Rs 564.75 crore from FY 2023-24 to FY 2026-27 for compressed biogas producers to buy biomass machinery** aiding biomass collection, with a **subsidy cap of 50% on the procurement cost.**
    - The scheme is expected to **support 100 CBG plants in the first phase.**

Significance of the guideline:

- The CRM initiative can help **avoid pollution** through the **establishment** of an **agri-residue biomass supply chain** from the farmers to the bioenergy industry like **power generation units, compressed biogas (CBG) plants, 2G ethanol factories**, which could strengthen their feedstock supply chain and benefit the biofuel industry as a whole.
- The **farmers** and the **industry both benefit from this scheme,** as it becomes an **extra source of income for the farmers** and provides the **industry with feedstock suppliers.**
- The supply chain thus formed will **assist farmers and industry in recognizing one another and collaborating while profiting financially.**
    - This also **contributes** to the **production of green energy**.

Challenges in the CRM guidelines:

- The farmers or the FPO will get their **subsidized amounts through direct beneficiary transfer**, but there **isn't any clarity on** -
    - **Whether the transfer will happen to the equipment supplier** after deducting the subsidy amount.
    - **Or if the farmers will have to pay the entire required amount** to the equipment supplier in advance and then avail themselves of the subsidy amount.
- **If farmers have to pay the total amount in advance, it might be difficult for them** to procure machinery even while contributing only 10% of the share.
    - **The required machinery will be expensive** and could be out of budget for most farmers intending to participate.
- The **farmers or FPOs** are also **directed** to independently identify and **bargain** with the **industry.**
    - This would **require the farmers to have adequate knowledge of the bioenergy industry** in their area and the correct market price for their produce.
    - Since the industry is just taking off, assuming that the farmers would have this information is unfair.
    - Putting this much onus on the farmers might hinder the scheme's process, as this would require a substantial amount of time and energy from the farmers.
- The **equipment** purchased by beneficiaries (FPOs) and the industry **will only be used for 3 months out of 12.**
- Its utilization and revenue-sharing model for the remaining nine months and the responsibilities of the industry and the beneficiaries, respectively, must be clearly laid out in the guidelines document.

CRM 2023-24 v/s CRM 2020-21 document:

The 2020-21 document focused solely on managing crop residue through custom hiring centres, while the 2023-24 document talked extensively about using this biomass in the bioenergy industry.

CRM 2023-24	CRM 2020-21
This includes **Madhya Pradesh** in addition to **Uttar Pradesh, Haryana, Punjab, and Delhi's NCT.**	Did not include Madhya Pradesh
The **central and state governments** are **dividing the funding 60:40**, apart from the NCT of Delhi (for which it remains 100:0)	The Centre was funding these projects completely with no funding requirements from the state governments.
The **finances in this year's guidelines are divided on a public-private partnership (PPP) basis**. The government, industry and the farmers divide the capital costs, with the government contributing 65%, industry 25% and farmers (through FPOs, SHGs, etc) 10%.	The farmers and the government bear the capital costs. The government provides subsidies to farmers of 50% in the case of individual farmers and 80% in the case of custom hiring centres.

Way Forward:

- The scheme **overall is a positive step in the direction of adopting bioenergy in India.**
- The aspect of **decentralization and involvement of all stakeholders** will make it easier to make decisions and implement them on the ground level when one is not left waiting for approvals from the Centre.
- This change also **benefits the farmers directly financially** and in terms of capacity building.
- The early stages of the intervention may be a challenge, but this can bear **good results in the long term.**

Voluntary carbon markets in agriculture

News Excerpt:

The **Ministry of Agriculture and Farmers' Welfare** launched the '**Framework for Voluntary Carbon Market in Agriculture Sector and Accreditation Protocol of Agroforestry Nurseries'.**

More on the news:

- The Accreditation Protocol of Agroforestry Nurseries will strengthen the **institutional arrangements** for large-scale planting material production and certification to promote agroforestry in the country.
- The Ministry has directed all the stakeholders to adopt it so that quality planting material can provide assured returns and the objectives and goals of the **National Agroforestry Policy** can be achieved.
- The government asked the **Indian Institute of Agricultural Research (ICAR)** to play an active role in this direction.
- The Ministry also urged cooperation from the **related ministries** of the Centre and the states and other organizations to promote the carbon market in the interest of farmers.

Challenges with voluntary carbon markets in agriculture:

- **Lack of Robust Monitoring**: This hinders the accurate assessment of emission reductions and the overall impact of sustainable agricultural practices.
- **Overestimation of Emission Reduction**: In 2023, an investigation by the **Centre for Science and Environment revealed** a tendency to overestimate emission reductions. This challenges the credibility of carbon credits as an effective measure in mitigating climate change and its accuracy.
- **Ownership Issues:** The investigation highlights problems with the ownership of carbon credits, indicating a lack of clarity and accountability in the distribution and utilization of credits.
- **Implementation Shortcomings:** The implementation challenges like insufficient training in sustainable agricultural practices, a lack of follow-up from companies after enrollment, and non-receipt of promised payments, contribute to the discontinuation of sustainable practices.
- **Awareness and Education**: Farmers are not aware of the contract terms and the benefits of participating in carbon credit projects.

Recent measures by the government:

- The **Energy Conservation (Amendment) Act 2022** has been enacted in India to develop domestic carbon markets, avoid carbon debt risks, and position the country as the world's largest exporter of carbon credits.
    - This initiative can promote the **adoption of sustainable farming practices**, establish a regulated ecosystem for voluntary carbon markets, and ultimately enhance agricultural output, farmer income, and environmental sustainability.
- In line with these efforts, the Uttar Pradesh **Government** initiated an agroforestry project in collaboration with **The Energy and Resource Institute (TERI)** in April 2023.
    - The project aims to integrate **nature-based systems** into agriculture, leveraging carbon sequestration to mitigate climate change and generate additional income opportunities for farmers.

Way Forward:

- **Stakeholder collaboration**: Foster collaboration among central and state ministries, organizations, and farmers to create a unified and cooperative ecosystem essential for the success of voluntary carbon markets.

- **Technology Integration for Measurement, Reporting, and Verification (MRV)**: Develop and implement scalable technological solutions for MRV to enhance accuracy, streamline processes, and facilitate efficient tracking of carbon credits.
- **Clear Ownership Framework**: Design transparent mechanisms for ownership and distribution of carbon credits, addressing issues highlighted in the investigation and ensuring fair compensation for farmers.
- **Financial Support and Training**: Provide upfront payments to farmers for carbon credits sold to address concerns about non-receipt of payments. Also, it offers training programs and support for sustainable practices, strengthening the foundation for successful implementation.

Carbon market:

- It is seen as one of the most effective market-based mechanisms to price greenhouse gas (GHG) emissions and achieve climate goals.
- The carbon market, which had been operational since the launch of the **Clean Development Mechanism (CDM)** by the United Nations in 2006, has evolved into its new version.
- There are two types of carbon markets:
- **The compliance market**- mainly driven by **emission trading systems (ETSs)**, resulting from legal and regulatory requirements.
- **The voluntary carbon market (VCM)** resulting from voluntary climate commitments
- **Corporations and industries** lead the VCM in the hard-to-abate sectors that rely on carbon credits to achieve their ambitious 'voluntary' climate goals.
- Its differentiating factor is premium pricing, which is attributed to projects that generate co-benefits such as **biodiversity conservation**, gender, and community economic development.
- The launch of VCM in agriculture can significantly benefit **small and marginal farmers** in India by offering additional income through the sale of carbon credits.

Illegal aquaculture farming

News Excerpt:

The Madras High Court has ordered the closure of all illegal aquaculture farms in the state of Tamil Nadu within six months.

Key Points:

- The court ordered the prosecution and punishment of all offenders under the **Coastal Aquaculture Authority Act, 2005,** which prescribes punitive measures for carrying on coastal aquaculture without registration.

Aquaculture: It is the **breeding, raising, and harvesting of fish, shellfish, and aquatic plants.**
India's aquaculture sector:
India is the **third largest fish producer in the world.**

- **In 2022-23, 16.25 million metric tonnes (MMT)** of fish and seafood were **produced** in the country.
- Out of the total fish produced in India, **fish production from aquaculture (or fish farming) alone was 12.12 MMT in 2021-22.**

- In the absence of adequate regulation of the aquaculture subsector, **its rapid growth endangers not only our environment but also public health.** Several studies have shown a crucial link between how fish in aquaculture are reared and their impacts on human health.
- This order is a step **towards acknowledging the environmental damage** that results from illegal aquaculture.

Risks to human health:

- Frequent disease outbreaks **(Bacterial, fungal, parasitic, and viral) affecting fish in Indian aquaculture have been reported repeatedly, with almost no attention given to them.**
    - For instance, in October 2023, **India's first tilapia parvovirus (TiPV) was reported in the Ranipet district of Tamil Nadu, making India the third country to report the occurrence of TiPV after China and Thailand.**
- Antimicrobials are used indiscriminately to deal with frequent disease outbreaks.
    - As a result, there is a **severe risk of Antimicrobial Resistance (AMR)** in fish consumers, a problem increasingly recognized by many health experts in India.

Inadequacies of the current regulatory framework:

- Even as the **National Surveillance Programme for Aquatic Animal Diseases,** a program for early detection of diseases, entered its second phase in 2023, the more comprehensive **Aquatic Animal Disease and Health Management Bill 2019** has been in limbo for years.
- Since **'fisheries' is a state subject,** the onus of enacting regulation also lies on the respective state fisheries departments. However, most states have not mandated any **quality parameters.**
- Additionally, **existing regulations are woefully inadequate in preventing and dealing with disease outbreaks** as they fail to mandate and enforce global best practices within the Indian aquaculture industry.
    - The stocking densities and water quality parameters of commonly exported fish such as **tilapia, shrimp, sea bass, and pangasius** are better regulated to ensure compliance with the stringent norms of the importing countries.

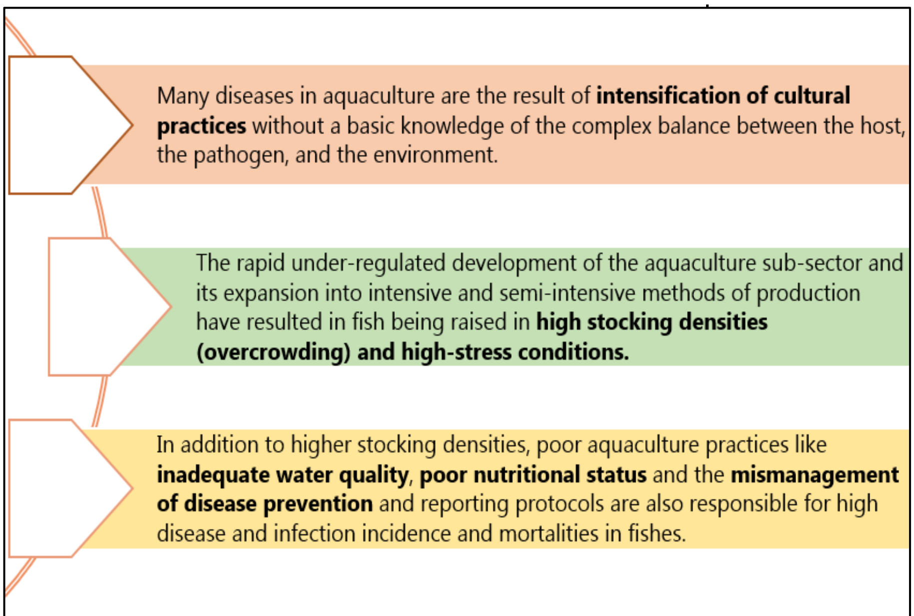


Figure: What causes frequent disease outbreaks?

Way Forward:

- **Enacting the Aquatic Animal Disease and Health Management Bill 2019** into law would be a major step forward.
- Laws and policies regulating aquaculture must incorporate **the spirit of One Health (achieving optimal health for people, animals, and our environment)** and ensure that fish health forms the bedrock of sustainable, humane, and safe aquaculture practices.
- **For the mitigation of health risks from aquaculture, better monitoring of the entire value chain, regular farm inspections and surveillance, and building the capacity of farmers to ensure prompt disease reporting are needed**.
- While keeping the species and production system in mind, **mandating stocking densities for the most domestically produced and consumed fish could be a good** first step in protecting the health of fish and, therefore, the health of consumers by keeping AMR in check.

World’s largest grain storage plan

News Excerpt:

The government announced a plan to set up the “world’s largest grain storage plan” in the cooperative sector.

About the news:

- Under the largest grain storage plan, a pilot project has been inaugurated in **11 Primary Agricultural Credit Societies (PACS)** in **11 states**.
- The government plans to set up a storage infrastructure of **700 lakh metric tons** over the next five years at **Rs 1.25 lakh crore**.
  - This will enable farmers to store their produce and sell it at the right time according to their needs. It will also help them to obtain loans from banks.
- The government also laid the foundation stone for an additional **500 PACS** for the construction of godowns and other Agri infrastructure.
- A project to computerize **18,000 PACS across** the country has been inaugurated, aligning farming with cutting-edge technology and shifting to fully digital payments.

Objectives of the plan:

- **Create 100% storage capacity:** The grain storage scheme aims to create storage capacity for **storing 100%** of India's grain production.
- **Integrate PACS godowns with the food grain supply chain:** It aims to seamlessly integrate **PACS godowns** with the food grain supply chain, with a collaborative effort of NABARD and spearheaded by the National Cooperative Development Corporation (NCDC).
- **Convergence of various existing schemes**: The initiative is being implemented through the convergence of various existing schemes, such as the **Agriculture Infrastructure Fund (AIF), Agriculture Marketing Infrastructure (AMI),** etc., to enable PACS participating in the project to avail of subsidies and interest subvention benefits for undertaking infrastructure development.

Primary Agricultural Credit Societies (PACS)

- Primary Agricultural Credit Societies are the **grassroots-level** arms of the short-term cooperative credit structure.
- PACS deals **directly with rural (agricultural) borrowers**, gives those loans, collects repayments of loans given, and also undertakes distribution and marketing functions.
- It serves as the **final link between the ultimate borrowers on the one hand and the higher financing agencies,** namely the Scheduled Commercial Banks, and the RBI/NABARD on the other hand.

Rejuvenating the cooperative sector:

- **Empowering small and marginal farmers**: The vision of Sahakar se Samriddhi (Prosperity through Cooperatives) is to rejuvenate the cooperative sector and empower small and marginal farmers.
- **Target to increase FPO**: Farmers today export their produce through Farmer Producer Organizations (FPO).

8000 FPOs are already functional. The government's target is to set up 10,000 FPOs.

- **Tax Reforms:** The government reduced the minimum alternate tax on cooperative societies—bringing it at par with the corporate sector—and raised the slab for tax to be deducted at source on income above Rs 3 crore.
- **Establishment of the Ministry**: The creation of a full-fledged Ministry of Cooperation and routing of non-basmati rice and sugar exports on government account through the newly registered National Cooperative Exports Ltd point to the importance the government is placing on cooperatives.
- The government seems to be increasingly emphasizing the role of cooperatives in agricultural marketing and storage, as **opposed to government-owned entities** such as the **Food Corporation of India (FCI)** and **Central Warehousing Corporation**.
- The new storage plan aims to add another **700 lakh tonnes of capacity** over the next five years through cooperatives, in effect doubling the existing capacity.

Way Forward:

The launch of the "world's largest agri storage plan" with a Rs 1.25 lakh crore outlay over five years is a significant step toward empowering farmers, ensuring better storage infrastructure, promoting cooperative growth in agriculture, fostering self-reliance and prosperity.

Cocoa Production in West Africa

News Excerpt:

A shortage of cocoa beans has led to a near shutdown of processing plants in **Ivory Coast and Ghana**, the two countries responsible for **60% of global production.**

Demand & Supply of Cocoa Production:

- The global market for chocolate and chocolate products is on the rise. It is projected to **grow faster than 4% annually** over the next few years.
- This growing demand for cocoa underscores the urgency of **addressing the intertwined issues that relate to the industry's sustainability**.
- Three factors are at play.
- **Environmental factor**: The impact of **the El Nino** weather phenomenon has caused drier weather in West Africa. It has contributed to problems on farms, such as the swollen shoot virus disease. As a result, Ghana has lost harvests from nearly 500,000 hectares of land in recent years.
- **The economic cycle of cocoa production** refers to the inherent **patterns of expansion and contraction in cocoa farming**. For example, as cocoa trees age, they become susceptible to diseases, requiring high maintenance costs.
    - Historically, farmers have tended to abandon old farms and start anew in fresh forests.
    - Unfortunately, finding new forests is now increasingly difficult. Perhaps the most severe issue of all is the **lack of fair compensation** for sustainable cocoa production.
- **The human factor** includes challenges such as **illegal mining**, which has overtaken numerous farms in Ghana. Sometimes, farmers lease their land to illegal miners in exchange for payment. These mining activities **degrade the quality of the land**, making it unsuitable for cocoa cultivation.

About Cocoa:

- Cocoa is the **dried and partially fermented fatty seed** of the cacao tree from which **chocolate** is made.
- The word cocoa is also used to refer to **cocoa powder,** the dry powder made by grinding cocoa seeds and removing the cocoa butter from the dark, bitter cocoa solids.
- While bean products are known by different names, typically, cocoa is considered the solids of the **cacao seed (bean),** cocoa butter is the fat component, and chocolate is the combination of the solids and the fat.

Condition of Production for Cocoa:

- Cocoa can be grown up to **300 m** above mean sea level.
- It requires a minimum of **90-100 mm rainfall** per month, with an annual rainfall of **1500-2000 mm.**
- The plants need an equitable climate with well-distributed rainfall. If dry periods are prolonged, irrigation scheduling is necessary.
- The temperature range of **15°-39°C** with an optimum of **25°C** is considered ideal.

Soil for Cocoa:

- Cocoa requires deep and well-drained soils.
- The majority of the area under Cocoa cultivation is on clay loam and sandy loam soil.
- It grows well in the **pH range of 6.5 to 7.0.**

Shade Requirement:

- Cocoa evolved as an under-storey crop in the Amazonian forests.
- Commercial cultivation of cocoa can be done on plantations where 50 per cent of light is ideally available.

Major producing Region:

- Africa is the world's leading producer of cocoa, with **Côte d'Ivoire and Ghana** being the top two producers.
- Other major producing regions include:
    - **Africa:** Cameroon, Nigeria
    - **Southeast Asia**: Indonesia, Malaysia
    - **Latin America:** Ecuador, Brazil, Peru
- In India, Cocoa is being cultivated in the States of **Kerala, Karnataka, Andhra Pradesh and Tamil Nadu**. **Andhra Pradesh** ranks first in area with 39,714 ha and production of 10,903 MT.

How have cocoa farmers and cocoa-producing countries' economies been affected?

- **At the farm level,** although the rise in prices may initially appear **beneficial to farmers but, a decrease in output leads** to fewer harvests on average, which means that, overall, farmers are not earning more.

- This issue is compounded by **recent economic challenges in West Africa,** such as **high inflation and currency devaluation,** particularly in Ghana. **These factors have resulted in farmers becoming poorer.**
- Another impact of the output decline is a **reduction in** local **processing.**
    - Major African processing facilities in Ivory Coast and Ghana have either ceased operations or reduced their processing capacity because they cannot afford to purchase beans.
- This likely means that **chocolate prices worldwide will surge.** This, in turn, adversely affects the local production units that have been emerging in recent years.
- However, the bargaining power of West African cocoa-producing countries seems to have increased.

Way Forward:

- Continuing to cultivate cocoa under current conditions is **unsustainable**.
- Some companies produce **cocoa-free chocolate, using technology to transform ingredients such as oats and sunflower seeds** into substitutes for cocoa mass and butter.
- Overall, this is **beneficial** for everyone.
    - The demand for cocoa has resulted in mass deforestation and significant carbon emissions, issues that are likely to worsen due **to climate change.**
    - Moreover, the push for cultivation has led to various forms **of labour abuses**.
- **Exploring cocoa alternatives is certainly part of the solution.**

Paira Rice Cropping System

News Excerpt:

Odisha is capitalizing on the Paira Rice Cropping technique to promote climate-resilient agriculture and nutrition sensitivity in the state.

What is the Paira Rice Cropping System?

- Traditionally, coastal areas of the state have practised the Paira cropping system, where pulse crops were sown in standing paddy fields prior to harvest, utilizing available moisture and requiring minimal **intervention and cost.** However, climate change has dwindled this conservation agricultural practice in recent years.
- This practice **saves time and money (to be spent on land preparation, etc.) and utilizes residual fertility.** This practice is common in both upland and lowland rice cultures. It is also known as **Relay or Utera cropping**.

The case of Odisha:

- Odisha has a cultivable area of over 6.18 million hectares and is endowed with 10 agro-climatic zones. The state **predominantly relies on rice cultivation** to meet the food demands of its population.
- The area under rice crops accounts for about **60 per cent** of the total sown area during the **Kharif season.** On the other hand, pulse crops cover about **50 per cent of the total area during the Rabi season.**
- However, **limited irrigation facilities** during the Rabi season have constrained the expansion of crop production.
- Cultivation of **short-duration pulse, oilseed crops in rice fallow** is helping maximize land use efficiency, boost farmers' income, and promote regenerative agriculture.
- The **residual moisture** left in the soil at rice harvest is often sufficient to raise short-duration pulses and oilseed crops. This is an efficient way of utilizing resources for **sustainable crop intensification and boosting land productivity.**
- **Rice fallow, or uncropped land left after harvest, is a major agricultural issue in eastern India.** However, introducing technologies and crops with tailored agronomy based on landscape suitability helps turn it into an opportunity. It also helps **farm income and ensures food and nutritional security**.
- The state government implemented the comprehensive project on rice fallow management for the first time during the 2022-23 Rabi season, achieving about **70,000 hectares.**
    - Taking a cue from its success, during the 2023-24 Rabi season, the programme has been scaled up to **382,000 hectares** against the target of 400,000. The scheme is being implemented in all 30 districts of the state.
- **Eight crops, including green gram, black gram, field pea, Bengal gram, grass pea, lentil, mustard and sesamum, have been targeted under the scheme**. Local varieties of green gram have shown great potential.

Promoting rice fallow management:

- The rice fallow management initiative is a simple and effective scientific approach that can potentially improve **soil health and climate resilience** of agri-food systems.
- The rice fallow management approach helps enhance crop coverage, reduce soil degradation, increase soil nutrients through a crop systems approach, improv**e nutrition security through the consumption of pulses** and other crops, and, above all, **effectively use the region's natural resources**.
- Rice fallow management is the **largest regenerative crop demonstration activity** in the entire country. It will set a milestone in regenerative agriculture and a precedent for sustainable crop management practices nationwide.

Access to eco-friendly inputs:

- Central to the success of the rice fallow initiative is incorporating a diverse range of eco-friendly agri-inputs, **including bio-fertilizers, bio-pesticides and integrated pest management techniques** such as light traps, pheromone traps and blue and yellow sticky traps. These measures promote **natural pest control**, reduce reliance on chemical pesticides and enhance overall ecosystem health.

- In addition to **pest management strategies**, the programme emphasizes the importance of balanced nutrient management by applying micronutrients.
- Addressing the **issue of soil acidity,** which is a major stumbling block to improving the productivity of non-paddy crops, **dolomitic limestone** is being provided to farmers for the amelioration of acid soils.

CDP-SURAKSHA

News Excerpt:

The government launched a new platform that will allow instant disbursal of subsidies to **horticulture farmers** in their bank accounts by utilizing the **e-RUPI voucher** as part of the **Cluster Development Programme (CDP)**.

About CDP-SURAKSHA

- CDP-SURAKSHA, a digital platform, stands for **"System for Unified Resource Allocation, Knowledge, and Secure Horticulture Assistance."**
- It facilitates the instantaneous transfer of subsidies to farmers' bank accounts using **e-RUPI vouchers from the National Payments Corporation of India (NPCI)**.
- This platform integrates various features, including database linkage **with PM-KISAN, cloud-based server space provided by NIC, UIDAI validation, eRUPI integration, local government directory (LGD),** content management system, geotagging, and geo-fencing.
- This initiative aims to **boost the growth of India's horticulture sector**, which accounts for nearly **one-third of the agricultural gross value addition (GVA)** and significantly contributes to the economy.
- Over the years, the **total production** of horticulture crops has considerably increased, from **240.53 million tonnes in 2010-11 to 334.60 million tonnes in 2020-21**.

How does the CDP-SURAKSHA work:

- The platform **provides access to farmers, vendors, implementing agencies (IA), cluster development agencies (CDAs), and officials of the National Horticulture Board (NHB).**
- A **farmer can log in using their mobile number and place an order** for planting materials such as seeds, seedlings, and plants based on their requirements.
- Once the **farmer submits their demand, the system prompts them to contribute their share of the planting material cost.**
- The **government subsidy amount is automatically displayed on the screen.** Upon the **farmer's payment, an e-RUPI voucher is generated**, which the vendor receives to supply the requested planting material.
- **Upon delivery, the farmer verifies receipt through geotagged photos and videos of their field**. Only after verification does the IA release payment to the vendor against the e-RUPI voucher.
- The **vendor uploads the invoice on the platform. The IA collects all documents and shares them with the CDA for subsidy release**, after which the subsidy is disbursed to the IA.
- It's worth noting that the farmer can avail of the subsidy at the initial stage when placing the order for planting material through the platform.

About e-RUPI:

- The CDP-SURAKSHA platform utilizes **e-RUPI vouchers provided by the NPCI, which are one-time payment mechanisms redeemable without the need for cards, digital payment apps, or Internet banking access.**
    - These vouchers **can be shared with beneficiaries via SMS or QR code** for specific purposes or activities.
- The new system **differs from the old one in that, previously, farmers had to purchase planting materials themselves and then approach officials for subsidy release. With CDP-SURAKSHA, subsidies are provided upfront to farmers when they purchase planting material.** Vendors supplying the material only receive payment after farmers verify delivery.

What is the Cluster Development Program (CDP)?

- It is a **key component of the central sector scheme managed by the National Horticulture Board (**NHB**)**.
    - Its primary objective is to **capitalize on the geographical specialization of horticulture clusters and promote integrated, market-led development across various stages of production.**
- Currently, **55 horticulture clusters have been identified, with 12 selected for pilot projects.** These clusters are at different developmental stages. Additionally, plans are underway for four more clusters, including **a floriculture cluster in West Bengal, coconut clusters in Kerala and Tamil Nadu, and white onion clusters in Gujarat.**
- Each cluster will **have both an implementing agency and a cluster development agency (CDA).**
- The government aims to cover approximately 9 lakh hectares of area across all 55 clusters, benefiting around 10 lakh farmers.
- The initiative is expected to **attract private investment** of Rs 8,250 crore, **supplemented by government assistance** tailored to the cluster's size. This assistance ranges up to Rs 25 crore for mini clusters (up to 5,000

ha), up to Rs 50 crore for medium clusters (5,000 to 15,000 ha), and up to Rs 100 crore for mega clusters (over 15,000 ha).

Way Forward:

- The CDP-SURAKSHA platform and the Cluster Development Program **represent a transformative effort to modernize and revitalize** India's horticulture sector.
- India needs to combine **digital innovation, targeted subsidy disbursement, and strategic partnerships** to unlock the sector's vast potential and drive economic prosperity and sustainable agricultural development.

The poultry industry needs urgent reforms

News Excerpt:

The current **outbreak of H5N1** is a result of unsafe conditions in **industrial livestock production**, which emphasizes the need for urgent poultry reforms.

The scale of the biosecurity issue:

- The **first H5N1 infection** spilt directly from chickens to humans in **Hong Kong** in 1997. **In India, the first H5N1** patient was reported in **Maharashtra** in 2006. An outbreak in December 2020 and early 2021 spread across **15 States.**
- This pathogen has **crossed** many **species barriers**, killing **polar bears** in the Arctic and **seals** and **seagulls** in **Antarctica**.
- With humans, the **World Health Organization (WHO)** estimates the **fatality rate for H5N1 at 52%**, based on the 463 deaths recorded since 2003 among the 888 people diagnosed with the virus.

The interconnectedness of human, animal, and environmental health:

- Almost all cases of human infection with avian influenza A (H5N1) have been linked to **close contact** with **infected birds** or **contaminated environments**.
    - In high densities, these contaminated environments are created by cramming chickens in **wired cages**, or **'battery cages'**. Animals are heavily stocked in **unsanitary conditions**.
    - Not only does this have a **detrimental effect** on the welfare of **animals** and the health of those who **consume the food** derived from it, but it also affects the **people working** at these facilities and **residing** in the vicinity.
- Local **farmers** periodically collect the **faecal matter** generated at these facilities for use as **fertilizer.** The amount of piled-up manure **exceeds the land's carrying capacity** and becomes a **pollutant**.
- **Residents** are compelled to adopt measures such as **spraying insecticides** inside their homes, which leads to **breathlessness** and a **nauseating smell**.
- Hence, the impact of the emissions in the atmosphere, effluents in the water systems, and solid wastes in the soil generated by these industries is felt by humans, other animals, and the environment.

Challenges faced by poultry farmers:

- Due to **contract farming**, large debts, and a very **specialized skill set**, poultry farmers often find it **difficult to exit** the industry **despite losses**. However, the myriad problems they face often **push them out of business.**
- Farmers suffer due to **market volatility** and **prevalent practices** pushed by industry giants. **For instance, antibiotics** are regularly given to birds as **prophylactics** and **growth promoters** so that more animals can be grown for greater profit.
- Furthermore, several antibiotics classified as **critically important** and highly important by the **WHO** are widely sold to farmers for **preventative use.**

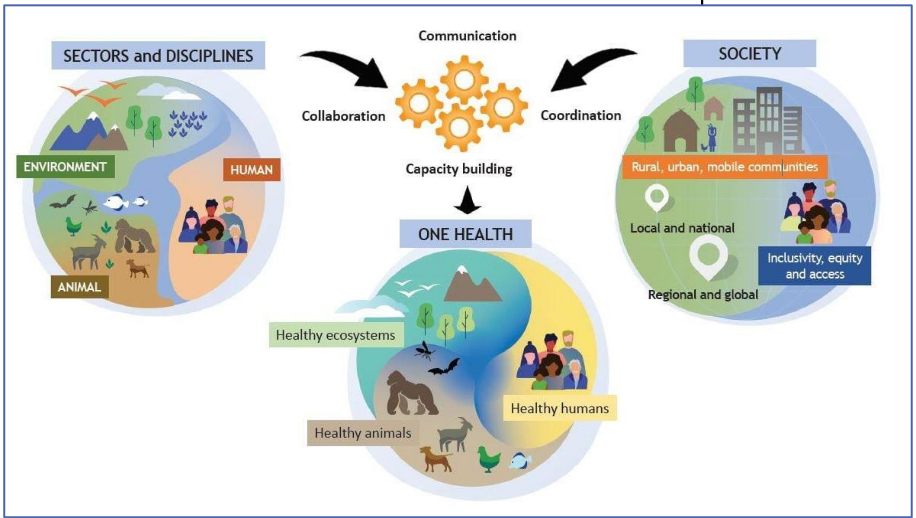
Regulatory Compliance:

- The **Central Pollution Control Board (CPCB)** has classified poultry units with **more than 5,000 birds** as a polluting **industry** that requires compliance and regulatory consent to establish and operate.
- Keeping animals in **intensive confinement** constitutes a **crime** under the provisions of the **Prevention of Cruelty to Animals (PCA) Act, 1960.**
    - Moreover, the operational activities at these industrial facilities cause **unnecessary pain and suffering** to the animals because of mutilation, starvation, thirst, overcrowding, and other ill-treatment, which is also a violation of the PCA Act.

Way Forward:

- **269th Law Commission of India report:**
    - The Law Commission in **2017** placed on record a representation by the **Tata Memorial Centre** that contained **evidence** that **non-therapeutic antibiotics** given to poultry cause **antibiotic resistance** since living conditions are unhygienic.
    - It further said that more **open, cleaner, and ventilated living spaces** make animals less likely to need constant antibiotics, making their **eggs and meat safer** for consumption.
    - Finally, it made recommendations for **two draft rules** on the welfare of chickens in the meat and egg industries, noting that improved animal welfare results in better and safer food.
        - These rules laid down **guidelines** based on existing laws and international best practices for animal care, waste management, and antibiotic use, among other things.
        - However, the **Draft Rules** for the egg industry released by the Ministry of Agriculture and Farmers' Welfare in **2019** are **weak and tokenistic.** They must meet the recommendations of the Law Commission.

- Given the CPCB's **reclassification of the poultry industry** as a highly polluting **'orange category'** industry, strict oversight of compliance and enforcement of environmental regulations is needed. Addressing the situation in light of the **bird flu** public health crisis and the climate emergency is crucial.
- India's environmental laws and regulations must reflect the interconnectedness of animal welfare with public health, ecosystem health, and biodiversity conservation, as demonstrated by the **One Health principle.**



What is "One Health"?

- One Health is an **integrated, unifying approach** to balance and optimize the health of **people, animals, and the environment.** It is particularly important to **prevent, predict, detect, and respond** to global **health threats** such as the COVID-19 pandemic.
- The approach mobilizes **multiple sectors, disciplines, and communities** at varying levels of society to work together. This way, new and better ideas are developed that **address root causes** and create **long-term,** sustainable **solutions**.
- The One Health approach is particularly **relevant** for **food and water safety, nutrition, the control of zoonoses,** pollution management, and combatting antimicrobial resistance (the emergence of microbes that are resistant to antibiotic therapy).

Why agriculture may need a new export-import policy

News Excerpt:

In the fiscal year ending March 31, 2024, **India's agricultural exports declined 8.2%**, attributed to restrictions on various commodities such as cereals, sugar, and onions.

About the News:

- According to data from the **Department of Commerce, farm exports were $48.82 billion**, down from the record $53.15 billion in 2022-23 and $50.24 billion in the previous fiscal year.
- During the **initial years** of the NDA government, agricultural exports experienced a **decline from $43.25 billion in 2013-14 to $35.60 billion in 2019-20**, while **imports rose from $15.53 billion to $21.86 billion.**
- This trend was largely due to a **decline in global agricultural commodity prices,** as indicated by the **UN Food and Agriculture Organization's (FAO) food price index dropping from an average of 119.1 to 96.5 points between 2013-14 and 2019-20.** The decrease in international prices made India's exports less competitive while increasing vulnerability to imports.
- However, the **global price recovery** following the **COVID-19 pandemic and Russia's invasion of Ukraine** led to a **surge in India's agricultural exports** and imports to all-time highs in 2022-23, with the FAO index reaching 140.8.

Drivers of Export:

- **Current Decline:** Export declines, **notably in sugar and non-basmati rice**, were significant contributors to the overall decrease, driven by governmental restrictions. During the current production year starting from **October 2023, no sugar exports were permitted**, resulting in a decrease to $2.82 billion in 2023-24 from previous highs of $5.77 billion and $4.60 billion.
- **Domestic Reasons:**
  - Concerns regarding **domestic availability and food inflation** prompted a ban on **white non-basmati rice** exports in July 2023. Currently, only parboiled grain shipments are allowed within this segment, subject to a 20% duty.
  - **Wheat & Onion:** Wheat and onion exports also faced restrictions **due to domestic shortages and rising prices**.
- **Other Items:** While most other major agricultural export items experienced growth, a few, such as **buffalo meat, oil meals, and raw cotton**, fell short of their previous record levels achieved in earlier years.

Drivers of Import:

- **Trend:** The notable trend in imports is a **7.9% decrease in overall agricultural imports during the fiscal year 2023-24**, primarily attributed to a significant decline in imports of edible oils.
- **Vegetable Oil:** In 2022-23, India's imports of **vegetable fats exceeded $20 billion,** coinciding with the aftermath of the Russia-Ukraine conflict when the FAO index and the vegetable oil sub-index averaged 140.8 points and 168.5 points, respectively.
  - However, in **2023-24**, the average **FAO index dropped to 121.6 points** and the **vegetable oil**

sub-index to 123.4 points, resulting in **lower global prices** and reducing the vegetable oil import bill to below $15 billion for the fiscal year.

- Despite the **decrease in spending on cooking oil imports, imports of pulses nearly doubled to $3.75 billion in 2023-24,** reaching levels not seen since 2015-16 and 2016-17, when they were at $3.90 billion and $4.24 billion, respectively.

Way Forward:

- **Farmers** and agricultural traders, much like any other business operators, **seek stability and predictability in policies**.
- When governments **opt to ban or restrict agricultural exports**, including products like de-oiled rice bran (a byproduct of paddy milling used in animal feed), they **typically prioritize consumer interests over those of producers.** Such measures can have a more significant impact when implemented suddenly, as seen with the abrupt ban on wheat exports.
- Establishing export markets requires considerable time and effort. Many economists advocate for a **more predictable and rules-based approach to policy-making**. For example, implementing temporary tariffs instead of outright bans or quantitative restrictions.
- Similarly, the approach to imports also warrants attention. The Union government has eliminated import duties on most pulses and maintained a 5.5% duty on crude palm, soybean, and sunflower oil.
- However, these minimal tariffs contradict **government's goal of promoting crop diversification,** aiming to shift farmers away from water-intensive crops like rice, wheat, and sugarcane towards pulses and oilseeds, which are also significantly imported.

Dal imports have hit a seven-year high

News Excerpt:

The **Food inflation pressures** have **reversed the relative self-sufficiency that the country has achieved in pulses**, leading to a rise in the import of pulses.

Retail food inflation:

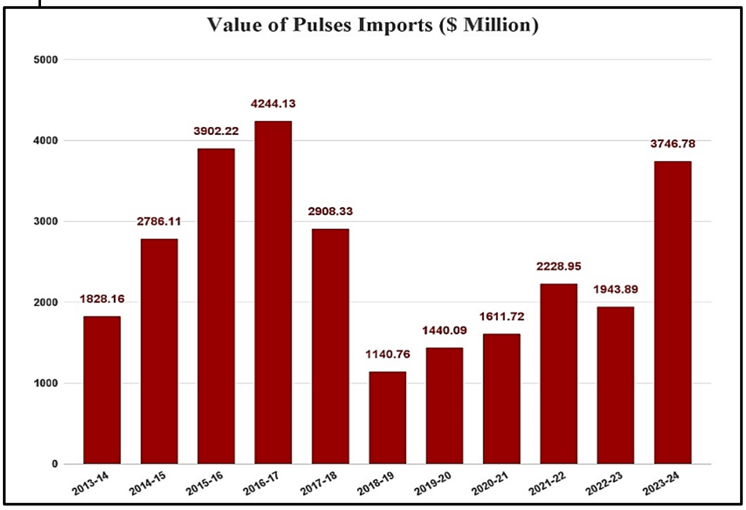
- In April 2024, the **Consumer Price Index** (**CPI**) for **cereals was 8.63%** higher than that in April 2023.
  - The government's food security scheme, which **provides rice and wheat** to 813.5 million people, may have mitigated the impact of rising cereal prices.
- The same cannot be said about **pulses,** which posted an **annual retail inflation** of **16.84% in April 2024** — nearly **twice that for cereals.**
- According to the **Department of Consumer Affairs,** the average all-India modal (most-quoted) price of **chana (chickpea) — the cheapest available dal —** was Rs 85 per kg on May 23, as against Rs 70 a year ago.
- The corresponding price rise has been even more for **arhar/tur** (from Rs 120 to Rs 160 per kg) but less (from Rs 110 to Rs 120 per kg) for both **urad (black gram) and moong** (green gram). The modal retail price **of masoor or red lentil** has actually eased from Rs 95 to Rs 90 per kg.

Causes of the drop in Pulses production:

- The main reason is the **El Niño-induced patchy monsoon and winter rain**, causing a **decline in domestic pulses production.**
- The two pulses to register the highest inflation have both seen sharp output falls: **Chana** (from 13.54 mt in 2021-22 to 12.16 mt in 2023-34) and **Arhar/tur** (from 4.22 mt to 3.34 mt).
- Experts say the decline in domestic output is also because of **erratic climate conditions** in key producing regions.
  - The **poor crops** — especially in **Karnataka, Maharashtra, Andhra Pradesh** and **Telangana,** where farmers also **planted less area due to irregular/deficient rainfall** has also caused shooting up of Dal prices.

Government actions amid declining pulse production:

- **Renewed food inflation pressures** have forced the central government to phase out **tariffs and quantitative restrictions (QR)** on imports of most pulses.
  - In May 2021, the **annual QRs on Arhar/tur, urad & moong imports**, along with a **10% basic customs duty, were lifted**.
  - In July 2021, the **duty on imports of masoor was slashed from 10% to nil.**
  - **Yellow/white pea imports**, till quite recently, were subject to a **yearly QR of 0.1 mt,** in addition to a **50% duty** and a **minimum price of Rs 200/kg,** below which no consignment was cleared.



- **All these curbs were removed in December, 2023**. On May 3 this year, the 60% import duty on desi (small-sized) chana was done away with.

Increase in import of pulses:

- **India's pulses imports were valued at $3.75 billion in 2023-24** (April-March), the **highest since the record $3.90 billion and $4.24 billion in 2015-16 and 2016-17.**
- In quantity terms, **the import of major pulses totalled 4.54 mt in 2023-24,** up **from 2.37 mt and 2.52 mt in the preceding two fiscals.**
  - Although it was lower than the all-time highs of 5.58 mt, 6.36 mt and 5.41 mt in 2015-16, 2016-17 and 2017-18, respectively.
- **Imports of masoor,** mainly from **Australia and Canada,** touched a record 1.7 mt in 2023-24.
- **Yellow/white pea imports** — from **Canada, Russia and Turkey** — surged from virtually nothing to 1.2 mt.
- **Chana imports (mostly from Tanzania, Sudan and Australia) rose as well.**
- On the other hand, **imports of arhar/tur (from Mozambique, Tanzania, Malawi and Myanmar)** and **urad (predominantly from Myanmar) have been flat.**

Past Government initiatives to increase pulse production:

- The resurgence in imports marks a **reversal of the relative self-sufficiency** achieved by the country, with **domestic pulse production increasing from 16.32 mt to 27.30 mt between 2015-16 and 2021-22.**
- The increase in production was enabled by government policy measures incentivizing farmers to grow pulses.
  - These included **MSP-based procurement** and **levying of duties** leading to a **near stoppage of imports,** particularly of **yellow/white peas (matar)** and **chana, by 2022-23.**
- **Domestic production got a further boost with the breeding of short-duration chana** and **moong varieties**, making it possible to cultivate these with little or no irrigation, using the residual soil moisture left by the previous crops.
  - The **50–75-day varieties of moong now allow the planting of as many as four crops a year: kharif (post-monsoon), rabi (winter), spring and summer.**

Way Forward:

- Dal inflation in the coming months would largely depend on the **southwest monsoon.**
  - **Global climate models are pointing to El Niño transitioning to a "neutral" phase next month.**
  - There could even be **La Niña —** associated with **good rainfall activity** in the subcontinent — by the second half of the four-month season (June-September).
- But the **precarious domestic supply position** (government agencies have procured barely any chana from this year's crop, compared to 2.13 mt in 2023 and 2.11 mt in 2022) and monsoon uncertainties make higher imports inevitable.
- The government has already permitted **duty-free imports of Arhar/tur, urad, masoor and desi chana till March 31, 2025.**
  - It **may have to extend the same for yellow/white peas imports, too — beyond October 31, 2024 now.**
- Yellow/white peas, being imported at Rs 40-41/kg, are **a cheaper substitute** for chana, just as masoor dal is replacing arhar/tur for making sambar in many restaurants and canteens.
- It is imports of these pulses — grown in Canada, Australia and Russia — that are likely to go up more than arhar/tur and urad shipped from East Africa and Myanmar.

Policy changes tether ethanol blending

News Excerpt:

The **slowdown** in **ethanol output** has consequences, putting the **20% ethanol-blended petrol** (EBP) **target by 2025-26** out of range and leaving India dependent on more polluting, expensive fossil fuel imports.

More about News:

- In the first half of the November 2023 - October 2024 ethanol supply year (ESY), the ethanol blending ratio averaged **12.1%**, the **same as the entire ESY 2022-23**.
  - This contrasts with the previous years, which saw a 1.9 percentage point increase in 2021-22 from 2020-21 and a 2.1 percentage point increase in 2022-23 from the preceding ESY.

Challenges in achieving Ethanol goals:

- **Policy and Pricing Issues:** India's ambitious plans for an agri-derived ethanol-fuelled transport sector rest on **remunerative rates for ethanol** and **improved agricultural yields.**
  - The current pricing structure for ethanol made from **sugarcane juice/B-heavy molasses** does not adequately reflect the production costs and investments made by the sugar industry.
  - The **minimum support price** for sugar has remained unchanged for more than five years,
- The **revenue share ratio (of sugar) for Indian cane farmers** is **75%**, which is far higher, as opposed to 70% in other important cane-growing countries.
- **Industry and Agricultural Constraints:**
  - The lack of **remunerative pricing** has prompted some major industry players to review their investment plans, further accentuating the **shortfall in ethanol production capacity.**

- The sugar industry is capable of meeting the ethanol supply for the **20% blending** target, but it is **contingent on stable policy, investment in sugarcane production, and farmer support.**

- **Government Policy Considerations and Production Targets:**
  - The government has pushed for **aggressive ethanol blending targets** without considering factors like **weather vagaries, low crop yields, and increasing sugar consumption.**
  - Such an aggressive expansion of ethanol capabilities needs better agricultural management.
- India requires 29 million tonnes (mt) of sugar annually, which is increasing by 1.5–2% per year.
  - A 20% blending target requires close to **10 bl of ethanol**, of which 5.5 bl has to come from **sugarcane;** 1.32 bl will go towards alcohol for industrial and portable purposes in 2024-25,
- **Weather Challenges and Prioritization**
  - **Inclement weather and lower yields** forced the government to divert more of the crop to sugar in an election season while placing restrictions on ethanol production for blending.
  - The government to prioritize sugar production against ethanol production for the ethanol blending programme in a situation of **limited availability of sugarcane.**

Fair and Remunerative Price (FRP):

It is the **minimum price that mills have to pay** to sugarcane growers.

The sugarcane growers are offered FRP by the government under the **Sugarcane (Control) Order of 1966.**

The **Commission of Agriculture Costs and Prices (CACP)** annually formulates recommendations for FRP, encompassing various agricultural commodities, including sugarcane. The government **evaluates the recommendations before they are approved**.

Way forward:

- It's important to **fix** the **minimum support price** and **ethanol prices** along with **FRP** every year to establish financial viability.
- **Sugarcane production** needs to be enhanced from the **current productivity of** 76 tonnes per hectare to **83 tonnes per hectare** in the **next five years**, and the **cane production area** must increase from **5.7** million hectares (mha) to **6.2 mha.**

Beej Utsav

News Excerpt:

A series of Beej Utsavs, or seed festivals, were held in the tribal belt at the tri-junction of Rajasthan, Madhya Pradesh, and Gujarat.

About Beej Utsavs:

- It is a unique initiative where practising farmers **exchange their knowledge** of Indigenous seed varieties.
- The aims of the festival include the **conservation of indigenous seeds, farming systems, and enhancing crop diversity, to improve food and nutrition security.**
- The tribals were encouraged to protect their **rich heritage of biodiversity** through farm practices handed down through several generations.

- **Farmers' willingness in the propagation of indigenous varieties.**
- **Identifying the farmers with traditional knowledge of crop cultivation.**
- **Encouraging the farmers with large landholdings to cultivate indigenous crops.**
- **Awareness among the consumers and stakeholders about the ecological and health benefits of indigenous varieties.**
- **Support of the government to the farmers for the propagation of these crops in small and large scale.**
- **Development of mechanization suitable for processing indigenous crops.**

Benefits of Indigenous seed varieties:

- **Less dependency on Hybrid seeds:**
  - Even marginalized farmers started depending upon hybrid seeds amidst the misconception that they give more yield than indigenous seeds, which affected their overall health and budget.
- **Environmentally sustainable:**
  - Indigenous seed varieties were "inherently compatible" with the local farming conditions, are pest-resistant and require very limited use of chemical pesticides.
- **Economically feasible:**
  - Because of the hybrid seeds, the expenditure on irrigation, fertilizers, and pesticides is constantly increasing and turning agriculture into a loss-making activity.
- **Better for health:**
  - The Food and Agriculture Organization (FAO) in its first ever report on the state of biodiversity has noted that loss of biodiversity in agriculture and excessive use of fertilizer for cultivation are the foremost reasons for malnutrition.

- Local and endemic crops that have evolved over time are a rich source of nutrition. Rapid commercialization of agriculture has led to the cultivation of a few commercial crops at the expense of local crops, resulting in the virtual extinction of nutritional biodiversity.
- **Empowering women peasants:**
  - Earlier, in remote villages, women had the knowledge of conservation and storage of seeds and this empowered them at home as well as in the community.

Challenges in reviving Indigenous varieties:

The primary factors that contribute to the revival of indigenous crops include the **passion of farmers, administrative measures initiated by the stakeholders, and the marketing strategies of vendors.**

Way Forward:

- In remote villages, **the seed bank concept** needs to be encouraged and women peasants should be taught conservation, preservation and storage of seeds. It would help **in exchange of seeds, improve nutrients in soil** and have a positive impact on agricultural biodiversity.
- **Ecological farming practices** need to be strengthened, and if farmers follow proper procedures in selecting indigenous seeds and practice organic farming, it will increase productivity and have a positive impact on soil health, biodiversity and human health.
- Additionally, knowledge about the health benefits of indigenous crops may **prevent their extinction** and ensure the availability of these foods in local markets.
- **The concept of Seed festivals** should also be rightly promoted.

Makhana Cultivation in Bihar

News Excerpt:

Foxnuts, popularly known as '**makhana**,' have gained traction as a '**super snack**,' with their **prices skyrocketing** in both domestic and international markets **since 2019**.

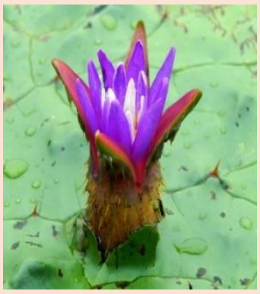
Soaring Price of Makhana

- Makhana prices have soared in the **international wholesale market**, reaching around **₹8,000 per kg**, up from ₹1,000 a decade ago.
- **In India**, **wholesale prices** have increased from ₹250 per kg to **₹1,400**.
- However, farmers in **Bihar's Mithila region**, which is the main producer of this crop in India, receive only a **fraction of the revenue** from this **healthy food** despite the **labour-intensive process** involved.

Production of Makhana

- The **Indian Council of Agricultural Research (ICAR)** reports that **Bihar** produces 10,000 tonnes of makhana annually, about **90% of India's total**. India meets **80% of the global demand** for foxnuts.
- Senior scientists at **ICAR** highlight makhana's nutritional benefits, including its **protein content** and **flavonoids** that protect against **diabetes and obesity**.

Prickly Water Lily



- Also known as the **Gorgon Plant**, it is a **floating plant** characterized by its **large, round, and deeply veined leaves**, which can reach **4 to 5 feet** in diameter.
- These **flat, "quilted" leaves** are covered in thorns on both the surface and the **royal purple** underside.
- The plant's **day-blooming, cup-shaped flowers** usually open underwater but occasionally emerge above the surface.
- These flowers are **deep violet** with an outer row of **white petals**. **Sharp spines** cover the sepals, stems, and both sides of the leaves.

- The **prickly water lily**, from which makhana seeds are harvested, covers over 15,000 hectares in Bihar.

Cultivation Process

- The cultivation process, which involves **sowing in December-January**, **transplantation in February-March**, and **harvesting in July-October**, is **labour-intensive**.
- The **seeds** are collected from **pond bottoms**, **graded**, **dried**, **roasted**, and **shelled** by women in the community.

Government Incentive

- The **Bihar government** offers a **75% subsidy** on the **Suvarna Vaidehi variety** of seeds under the **Makhana Development Scheme**.
- Additionally, makhana is part of the Union government's **One District One Product scheme**, providing subsidies to food processors for branding, marketing, and infrastructure development.
- However, the **harvesters**, primarily **traditional boatmen** and **fisherfolk**, receive minimal government support and are advocating for a **minimum support price (MSP)** to sustain cultivation.

Role of Mallah Family

- About **500,000 families**, mainly from the **Mallah community**, are involved in its processing across **nine districts** in the **Mithila region**.

- Despite the **hard work** and **cultural significance**, the Mallahs face challenges such as **inadequate government support**.
- Many **migrate to Assam and Bengal** for better opportunities.
- The introduction of **popping machines** is feared to threaten the livelihoods of Mallah women.

Way Forward:

- Efforts are underway to **cultivate the lily in managed ponds** for better **hygiene** and **organic production**.
- The government needs to provide an **MSP to support small-scale traders and farmers**, ensuring the sustainability and growth of makhana cultivation in Bihar.

Draft National Programme for Organic Production

News Excerpt:

The **Agricultural and Processed Food Products Export Development Authority** (APEDA) **issued the draft National Programme for Organic Production (NPOP) in 2024**.

Agricultural and Processed Food Products Export Development Authority (APEDA)

- **APEDA** was established by the Government of India through the **Agricultural and Processed Food Products Export Development Authority Act, 1985.**
- It was **created in 1986** and operates under the **Ministry of Commerce and Trade**.
- It was designed to **promote the export** of **agricultural goods** and **processed food products**.
- APEDA also acts as the **Secretariat** to the **National Accreditation Board (NAB)** for implementing the **accreditation of Certification Bodies** under the **National Programme for Organic Production (NPOP)** for **organic exports**.
- It is **headquartered in New Delhi** and has established **15 regional offices**.

More About the News:

- **APEDA** stated that the policy has been revised **to align with international standards**.
- It also proposes **increased penalties** by **accredited certifying bodies** for violations and non-compliance with the norms.

Unique ID for Farmers

- The draft suggests introducing a **unique identification (ID)** for farmers interested in **organic farming**.
- Regarding the unique ID, the draft stipulates that **farmers must register** with the **Ministry of Agriculture and Farmers Welfare** to receive their **unique ID**.
- This ID can then be submitted to the **Internal Control System** of a grower group for registration **under NPOP**.
- The **draft NPOP** allows growers to **switch to another farmer group** if they face issues or prefer not to continue with their current group.

Penalties for Violation

- The proposed penalties include a fine of **₹10 lakh for providing false information**, up from ₹5 lakh, along with the **termination of accreditation**.
- **Non-compliance with NPOP norms** will incur a **fine of ₹50 lakh**, previously nil, and **failing to update and verify data** on Tracenet-Organic will result in a **₹25 lakh fine**, up from ₹3 lakh.
- For refusing to disclose information, the penalty is ₹5 lakh, while for non-conformities established for the presence of residues in prohibited substances in a certified organic product, the fine is ₹25 lakh.

Way Forward:

- The trade analyst noted the **absence of organic textile standards** in the **draft NPOP**. The **National Accreditation Body (NAB)**, which operates under APEDA, has a comprehensive mandate and **should include these standards**.
- The expert stressed that **fraud in organic food** could impact human health and called for the NPOP to include **traceability from farm to fork**, **imprisonment clauses**, and **heavier fines** rather than merely pecuniary penalties.
- The expert highlighted that the presence of the APEDA Chairman in NAB is a **"conflict of interest".**
- The most important missing aspect in the draft is the lack of a proposal to imprison the defaulters, as in countries like the US. These issues should be considered for better and nonpartisan implementation.

PM releases climate-resilient seed varieties

News Excerpt:

The Prime Minister unveiled **109 high-yielding, climate-resilient,** and **biofortified seed varieties** for agricultural and horticultural crops**.**

More details about News:

- Developed by the **Indian Council of Agricultural Research (ICAR)**, these seeds cover **61 different crops**, including **34 field crops** and **27 horticultural crops**, and are designed to improve farm productivity and increase farmers' income.
- Among the field crops, the varieties include **cereals, millets, forage crops, oilseeds, pulses, sugarcane, cotton, and fibre crops.**
- In horticulture, the Prime Minister released new varieties of **fruits, vegetables, plantation crops, tubers, spices, flowers, and medicinal plants.**

CR Dhan 416 Rice variety: One of the newly released seed varieties is **CR Dhan 416**, a **rice variety** specifically designed for **coastal saline regions**.

- It yields an impressive **48.97 quintals per hectare** and reaches maturity within **125-130 days**. This variety is moderately **resistant to several diseases**, including brown spots, neck blasts, sheath rot, rice tungro disease, and glume discolouration. Additionally, it offers complete resistance to **brown plant hoppers, grasshoppers, and stem borers**.

New Durum Wheat variety: A new **durum wheat variety** was also introduced that is particularly suitable for the regions of **Maharashtra, Karnataka,** and the **plains of Tamil Nadu.** This variety, adapted for irrigated conditions, has an average grain yield of **30.2 quintals per hectare**.

Variety of Pulses: A total of **11 new pulse varieties** have been introduced, including chickpea, pigeon pea, lentil, field pea, faba bean, and mung bean.

- The chickpea varieties, ideal for timely sown, rainfed, or irrigated conditions during the Rabi season in the **North East Plain Zone (NEPZ)**, yield **17.79 quintals per hectare** and mature within **130 days**.
- These varieties are moderately resistant to **wilt, collar rot, and stunt**, and are tolerant to **pod damage**.

Oilseed Varieties: In addition, **seven new oilseed varieties**, such as **safflower, soybean, groundnut**, and **sesame**, along with **seven forage crops**, including forage pearl millet, berseem, oats, forage maize, and forage sorghum, were also released.

Sugarcane Varieties: The Prime Minister further introduced **four new sugarcane varieties**, **six fiber crops** including **cotton and jute**, and **11 potential crops** such as buckwheat, amaranth, winged bean, adzuki bean, pillipesara, kalingda, and perilla.

Horticultural Crop Varieties: According to the Ministry, **40 new horticultural crop varieties** have also been introduced, covering fruits, vegetables, tuber crops, spices, plantation crops, flowers, and medicinal plants.

Pusa 2002 Millet variety: Millet variety 'Pusa 2002,' matures in just **70 days**, compared to the usual 110 days required by other varieties.

Girnar 6 Groundnut variety: Groundnut variety 'Girnar 6' is known for its **high oil content** and encouraged efforts to enhance the oil content in other crop varieties to improve their **nutritional and economic value**.

Biofortified Seeds for Enhancing Nutrition and Food Security

- India is advancing the development of **biofortified seeds for pulses, wheat, mustard, millets, fruits, and vegetables** to enhance their **nutritional content and address food security** concerns.
- This initiative aims to improve India's position on the **Global Hunger Index**, which highlights not a lack of food but the **low nutritional quality** of existing crops contributing to malnutrition among newborns and women. (**India's Global Hunger Index** ranking **dropped to 111 out of 125 countries** in 2023)
- Biofortified seeds with increased **iron content** will produce crops like **red potatoes and red okra**, as well as **bananas** with **higher zinc levels**.
- The goal is to **replace the entire seed stock** within **four to five years**, with new seeds being distributed through government channels.

Nitrogen-Use Efficiency Among Indian Rice Varieties

News Excerpt:

A recent study has uncovered a wide variation in **nitrogen-use efficiency (NUE)** among popular rice varieties in India.

What is Nitrogen-Use Efficiency?

- Nitrogen-use efficiency (NUE) refers to the **amount of crop yield produced relative to the nitrogen available to the crop,** whether from natural or artificial sources.
- High NUE means that a **crop can produce more yield with less nitrogen**, making it more efficient and environmentally friendly.
- Improving NUE is **crucial for reducing fertilizer waste** and minimizing the environmental impact of agricultural practices.

Key findings of the study:

- The study, conducted by biotechnologists at **Guru Gobind Singh Indraprastha University (GGU) in New Delhi**, revealed that the NUE of the **best-performing rice varieties** was up to five times higher than that of the least efficient ones.
- This variation highlights the potential for selecting and breeding rice varieties that are more nitrogen-efficient.
- However, it was noted that **a high NUE does not always correspond to the highest yields.**
- Historically, the focus of Indian agriculture has been on **maximizing yield, particularly during the Green Revolution.**
  - This emphasis led to increased use of **synthetic fertilizers, resulting in significant waste and pollution.**
  - **Currently, Cereal consumes two-thirds of Urea in India, which is led by rice cultivation.**
- The study suggests that a broader approach is necessary to identify and develop new crops that **combine high NUE with desirable yields.**

Implications for Agriculture and the Environment

- This discovery could pave the way for developing new rice strains that require **less nitrogen while maintaining high yields,** potentially **reducing the country's reliance on imported fertilizers and decreasing nitrogen-related environmental pollution.**
- Improving NUE is not only beneficial for crop production but also crucial for **environmental sustainability.**

Way Forward:

- The study recommends **large-scale screening of all Indian rice varieties to identify more NUE cultivars** that are suited to different agro climatic conditions and markets.
- In addition to improving crop varieties, the study suggests that **enhancements in fertilizer formulations, legume-based crop rotations,** and crop management practices could also contribute to better NUE.
- However, the most significant gains are likely to come from **advancements in biotechnology,** which can be used to develop rice strains that are both nitrogen-efficient and high-yielding.

Strategy For the Development of Seaweed Value Chain

News Excerpt:

NITI Aayog published a report titled **"Strategy for the development of Seaweed Value Chain".**

About Seaweed:

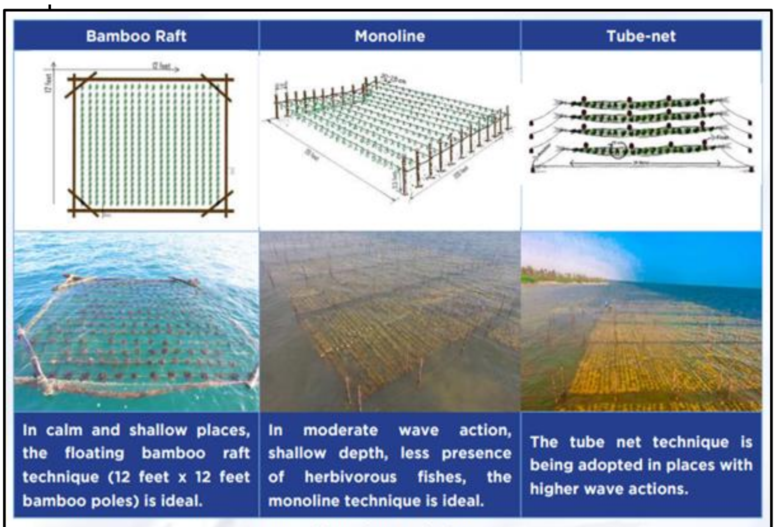
- Numerous types of marine plants and macroalgae that thrive in rivers, lakes, and other bodies of water are together referred to as "seaweed".
- Over ten thousand seaweed species are found all over the world and can be broadly classified into three groups: **green (Chlorophyta), brown (Phaeophyta), and red (Rhodophyta) seaweeds**.
- Seaweeds are prized commercially for their bioactive metabolites, manure, and fodder, as well as for their cell wall polysaccharides, which include **agar, algin, and carrageenan.**

Uses:

- They are used in the **food, pharmaceutical, cosmetic, and mining industries** for a wide range of commercial purposes.
- Apart from their usage as raw materials in the extraction of **marine chemicals and bioactive compounds,** some species of seaweed are also becoming more and more important as **nutritious foods** for human consumption.

The Need for a Targeted Strategy:

- India's potential stands very much **under-tapped** regarding seaweed production (less than one percent) and trade.



Seaweed farming techniques

- Coastal communities in India are currently **grappling with the adverse impacts of climate change, including extreme temperatures, changing precipitation patterns, rising sea-levels, coastal flooding, erosion, and heightened risks of drought.** These challenges have significantly affected the productivity of fisheries, coastal agriculture and aquaculture.
- Besides, another major challenge is **lack of quality seeds.** The hurdles in importing germplasm and wet seed materials are among the major challenges in promoting seaweed cultivation.

Importance of Seaweed:

- **Ecological Imperative: Enhancing Climate Change Resilience:**
  - Seaweed farming represents a climate-resilient form of aquaculture that offers numerous benefits. Seaweed cultivation is advantageous as it requires **no land, freshwater, or fertilizers.**
  - It provides sustainable and diverse livelihood options along with employment generation to coastal communities.
  - Moreover, seaweed farming **mitigates the adverse effects of oceanic eutrophication and acidification** while promoting a healthy ecosystem by oxygenating seawater and plays a role in carbon sequestration.
- **Economic Imperative:**
  - Seaweed cultivation diversifies **marine production, doubles fish farmer's income, reduces reliance on traditional fishing,** and **diversifies coastal communities' livelihoods.**
    - Á **For example,** Kappaphycus alvarezii farming has a crop duration of 45-60 days, allowing for multiple harvests per year.
  - Besides, the trade of seaweed and its products can also be good for India's forex accounts. Demand for seaweed-derived products, including **biofuels,**

fertilizers, and food additives, presents income diversification and expansion opportunities.

- **Nutritional Imperative:**
  - Seaweeds, provide vital minerals like **calcium, phosphorus, sodium, and potassium along with a wide range of vitamins like A, B1, B12, C, D, E, niacin, folic acid, pantothenic acid, and riboflavin**.
  - They also contain essential **amino acids** that are needed for metabolism and general health.
  - Seaweeds are particularly valuable as they provide approximately **54 trace elements** crucial for the proper physiological functioning of the human body.
  - Seaweeds contain biologically active compounds like **carotenoids, phlorotannin, fucoidan, and alginic acid,** associated with preventive effects against various diseases, including **inflammation, cancer, diabetes, arthritis, hypertension, and cardiovascular ailments.**

India and world standings:

- India is a fortunate nation with an **Exclusive Economic Zone (EEZ) spanning** more than 2 million square kilometres and an enormous 8,118-kilometer coastline, supporting the livelihoods of about 4 million people.
- **Seaweed farming in India** at 33,345 tonnes wet weight of seaweeds per year produces **less than 1 percent of global seaweed production.**
- The total global exports of seaweed and seaweed-based **hydrocolloids amount to USD 2.65 billion across 98 countries.** Few countries dominate the trade balance, viz. **China, Indonesia, the Philippines, the Republic of Korea, and Malaysia.**

Recommendation for the development of the seaweed value chain:

- **Regulatory and governance:**
  - Amendment in the **Allocation of Business Rules, 1961**, to include seaweed cultivation and its value chain under the allocation of business rules of the Department of Fisheries, Ministry of Fisheries, Animal Husbandry & Dairying, GoI. **Similarly, Exports and certification of seaweed and its products are allocated to MPEDA (The Marine Products Export Development Authority).**
  - **Constitution of a National Steering Committee** for untapping the seaweed potential, and effectively managing associated environmental, economic, and interstate issues.
  - **Constitution of the national-level technical committee** for the import of seaweed seeds and planting material.
  - **Inclusion of seaweed related credit in Priority Sector Lending (PSL)** by RBI as seaweed is a tool to combat and deal with climate change.
- **Social security and financial support:**
  - Comprehensive risk cover through **insurance for crop,** seaweed infrastructure and life of seaweed farmers.
  - **Financial support for seaweed cultivation** may be provided by broadening the ambit of PMFBY, PM-KISAN and Kisan Credit Card (KCC).
  - **Mobilization of seaweed farmers** through SHGs, FFPOs, JLGs, etc., to strengthen their ability to access institutional credit facilities.
- **Infrastructure and institutions:**
  - **Establish seed banks** in all the maritime states and UTs to ensure the availability of quality seed material immediately after the end of the monsoon season.
  - **Setting up of Centres of Excellence (CoE) for seaweed** to support coastal states/UTs from capacity building of farmers, enterprenuers and startups, seed availability, multiplication, cultivation, harvesting, post-harvest handling, processing, marketing, domestic and international trading of seaweed.

Conclusion:

- The strategy for seaweed cultivation is guided by the **3Es: Ecology, Economy, and Equity.** It prioritizes ecological considerations to ensure the sustainable management of seaweed resources and protect marine ecosystems.
- Finally, **social equity should be a key objective** to provide equal opportunities and benefits for all stakeholders involved in seaweed cultivation, including coastal communities and marginalized groups.

India's Attempt at New Rice-Wheat Cropping System

News Excerpt:

The joint venture (JV) named **Paryan Alliance Pvt. Ltd** aims to introduce advanced technologies for **direct-seeded rice (DSR)** and **zero-tillage (ZT) wheat**.

More About the venture:

- This is the first time in India that two major private sector seed companies have joined forces to enhance the sustainability and climate resilience of India's rice-wheat cropping system.
- The technologies at the heart of this initiative include a proprietary **DSR cropping solution known as 'FullPage' and a ZT technology called 'FreeHit.'**
- These innovations are designed to allow farmers to grow rice and wheat without the need for traditional transplanting and soil preparation, which typically involve **extensive water use and stubble burning.**

The objective of the Partnership:

- The partnership's goal is not only to boost rice and wheat production but also to significantly reduce water, labor, and fuel consumption.

- The **DSR method,** in particular, saves approximately **30% of water by eliminating the need for puddling, transplanting,** and **maintaining flooded fields.**

Direct Seeded Rice

- Direct-seeded rice (DSR) is a method of rice cultivation where seeds are sown directly into the field, rather than transplanting seedlings from a nursery. This technique can be done through dry seeding or wet seeding.

Key Features and Benefits of DSR:

- **Water Savings**: DSR generally requires less water compared to the traditional transplanting method, as it eliminates the need for puddling and standing water.
- **Labour Savings**: The method reduces labour costs since it does not involve the labour-intensive process of transplanting seedlings.
- **Early Maturity**: Rice grown through DSR often matures earlier than transplanted rice, which can be advantageous in areas with limited water availability or where farmers wish to plant a subsequent crop.
- **Lower Greenhouse Gas Emissions**: Because DSR fields are not continuously flooded, methane emissions are typically lower, making it a more environmentally friendly option.
- **Improved Soil Health**: By avoiding puddling, the soil structure is better preserved, which can enhance soil health over time.

Challenges of DSR:

- **Weed Management**: DSR fields are more prone to weed infestations, requiring effective weed management strategies.
- **Nutrient Management**: Proper nutrient management is critical, as nutrient availability can differ compared to traditional methods.
- **Pest and Disease Control**: The lack of water in the fields can sometimes lead to increased vulnerability to certain pests and diseases.
- **Seed Quality and Sowing Techniques**: High-quality seeds and precise sowing techniques are essential to ensure good crop establishment and uniform growth.

Innovation to Achieve the Objective:

- The **rice hybrids** developed are specifically bred for **DSR**, featuring strong roots and stalks that **support higher plant populations** per square meter compared to conventional transplanting methods.
- The hybrid herbicide-tolerance trait has been introduced through mutation breeding, avoiding the use of genetically modified (GM) methods, which involve foreign genes.
- It allows the use of **Imazethapyr, a herbicide that effectively controls weeds without harming the crop**.
- For **wheat**, the JV's ZT technology allows for the direct sowing of seeds **without the need for burning the stubble** of the previous paddy crop or extensive land preparation.
- This process is facilitated by using a **Super Seeder machine** that incorporates the paddy stubble into the soil, followed by planting the wheat seeds with a standard **seed-cum-fertilizer drill.**

Progress so far:

- During the **current kharif season, the rice hybrids were tested** on thousands of acres across several states, including Punjab, Haryana, Madhya Pradesh, Chhattisgarh, and western Uttar Pradesh.
- The JV is now awaiting regulatory approval to launch the **'FreeHit' ZT wheat technology in the upcoming rabi season.**

Conclusion:

This initiative represents a significant shift in India's agricultural landscape, introducing sustainable practices that could transform how staple crops are cultivated, making them more resilient to climate change and less resource intensive.

The Green Revolution in Maize

News Excerpt:

Maize production in India has more than tripled over the last two decades.

More about the news:

- The **Green Revolution** was largely about wheat and rice. India became self-sufficient, if not surplus, in these two cereal grains, thanks to high-yielding varieties bred by institutions such as the Mexico-based **CIMMYT (International Maize and Wheat Improvement Center)** and the **Indian Agricultural Research Institute (IARI) in New Delhi,** under the leadership of scientists like Norman Borlaug and M S Swaminathan.
- There is, however, another less celebrated revolution that has taken place in India — in maize. Between 1999-2000 and 2023-24, its annual output has more than **tripled**.

Uses of Maize in Economy:

- Maize, unlike rice and wheat, isn't much of a food grain. Hardly a **fifth of India's maize production** is used for direct human consumption. An estimated **60%** goes as feed for poultry birds and livestock.
- **Food and feed** apart, 14-15% of India's maize utilization is for industrial purposes. Maize grains have 68-72% starch, and 1-3% of other simple carbohydrates (sucrose, glucose and fructose). Starch has applications in the textile, paper, pharmaceutical, food and beverage industries.
- More recently, maize has emerged as a feedstock for **ethanol** that is used for blending with petrol.

Green Revolution in Maize:

- The Green Revolution in maize has been, and continues to be, a **private sector-led one.**
- Maize has **cross-pollinating nature** (the male and female parts are located in different areas of the plant) which makes hybrid breeding commercially viable.

- **IARI** has bred India's first **"waxy" maize hybrid** with **high amylopectin starch content**, making it better suited for ethanol production. The starch in maize is a mixture of two polymers, comprising glucose molecules bonded together in a straight chain (amylose) and in branched form (amylopectin).
- Normal maize starch has 30% amylose and 70% amylopectin. The starch from **IARI's waxy maize hybrid (AQWH-4)** has 93.9% amylopectin. Amylose starch imparts hardness in the grain, while amylopectin causes softness. That, in turn, affects starch recovery and fermentation rates.
- The IARI-developed hybrid, having an average grain yield of **7.3 tonnes per hectare** and a potential of **8.8 tonnes,** has been identified for release under the All-India Coordinated Research Project on Maize.
- Meanwhile, **CIMMYT** has opened a maize **doubled haploid (DH)** facility at Kunigal in Karnataka. It produces 100% homozygous (i.e. having two identical copies of a single gene), and genetically pure inbred lines of maize that can be used as parents for further crossing and breeding of hybrids.

Role of the Private Sector:

- Private sector-bred hybrids account for **more than 80%** of the 10 million hectares-plus area planted to maize in India.
- Their higher yields, from crossing two genetically dissimilar inbred plants, are limited to the first generation.
- The issue is that farmers cannot harvest the same yields if they save the grains from these and reuse them as seeds.

Malaysia Offers Palm Oil Partnership to India

News Excerpt:

India and Malaysia have decided to strengthen their cooperation in the edible oil sector, focusing on the **cultivation of oil palm** and the **production** and **trade of palm oil**.

More details about the news:

- Malaysia supplies three million metric tonnes of palm oil out of the **9.7 million tonnes imported by India each year**.

Palm Oil Import in India

- India is the **world's biggest buyer of palm oil**.
- **In 2020-21**, India **imported 8.4 million metric tonnes of palm oil**, which is about **18% of all the palm oil bought globally**.
- As the **third largest user of edible oil** in the world, India relies a lot on imports.
- In 2020-21, **62% of the oil India used was imported**, and most of this was palm oil.
- **Indonesia and Malaysia** are the main countries that supply palm oil to India, with **Indonesia providing 61%** of the imports and **Malaysia 32%** of the imports in 2020.

The International Maize and Wheat Improvement Center (CIMMYT):

- CIMMYT is a cutting-edge, **non-profit**, international organization dedicated to solving tomorrow's problems today.
- It is entrusted with fostering improved quantity, quality, and dependability of production systems and basic cereals such as maize, wheat, triticale, sorghum, millets, and associated crops through applied agricultural science, particularly in the **Global South**, through building strong partnerships.
- This combination enhances the livelihood trajectories and resilience of millions of resource-poor farmers while working towards a more productive, inclusive, and resilient agrifood system within planetary boundaries.

Challenges associated with Oil Palm plantation in India:

- **The long gestation period (4-5 years)** makes the plantation difficult for small farmers.
- The high-water **footprint** for growing palm is 243 m3/ton, which increases stress on water resources in certain regions.
- Oil palm expansion is a major driver of **deforestation** and **degradation of natural habitats** in parts of tropical Asia and Central and South America, behind cattle ranching and local and subsistence agriculture.
- In southern states like **Andhra Pradesh and Telangana**, water scarcity and small landholdings hinder production.
- Farmers have **abandoned palm oil** due to high costs and low returns.
- **In the northeast**, issues include hilly terrain, small landholdings, and poor infrastructure.
- **Mizoram's farmers** struggle with low prices and transporting produce to distant factories.

National Mission on Edible Oils – Oil Palm (NMEO-OP)

- **NMEO-OP** is a new **Centrally Sponsored Scheme** aimed at boosting the **cultivation and productivity** of **oilseeds and oil palm**, with a particular emphasis on the **North East region** and the **Andaman and Nicobar Islands**.
- The scheme has a **financial outlay of Rs. 11,040 crore**, with Rs. 8,844 crore contributed by the Government of India and Rs. 2,196 crore by the states, which includes funding to cover viability gaps.
- This initiative replaced the **National Food Security Mission-Oil Palm programme**.
- It aims to bring an **additional 6.5 lakh hectares** under oil palm cultivation **by 2025-26**, with the ultimate goal of **covering 10 lakh hectares**.
- **By 2025-26**, the **production of Crude Palm Oil (CPO)** is expected to reach **11.20 lakh tonnes**, and by **2029-30**, it is projected to rise to **28 lakh tonnes**.

Environmental Impact of Oil Palm Plantations:

- **Biodiversity Loss: Converting tropical forests** to oil palm plantations devastates many plant and **animal species**. **Destroys habitats** that often contain rare and endangered species or serve as wildlife corridors.
- **Air Pollution: Burning forests** for clearing vegetation releases smoke and carbon dioxide, contributing to climate change. **Fires in peat areas** are hard to extinguish, causing smoke and haze that affect health throughout Southeast Asia.
- **Soil and Water Pollution:** Palm oil mills produce **2.5 metric tons of effluent per metric ton of oil**, polluting freshwater and affecting biodiversity and people downstream. Indiscriminate use of **pesticides and fertilizers** can contaminate surface and groundwater.
- **Soil Erosion: Forest clearing** and **improper planting** arrangements cause soil erosion. **Planting on steep slopes** increases erosion, leading to flooding and silt deposits in rivers and ports.
- **Climate Change:** Draining and **converting tropical peat forests**, which are major carbon sinks, is particularly harmful. **Forest fires** for clearing land release carbon dioxide, contributing significantly to climate change. **Indonesia**, with its high deforestation rate, is the third-largest emitter of greenhouse gasses globally.

Ethanol Production from Damaged Foodgrains Surpasses Sugar

News Excerpt:

For the first time, **more than half of India's ethanol production** now comes from **cereal grains** such as **maize** and **damaged foodgrains**, rather than **sugarcane**.

More details about the news:

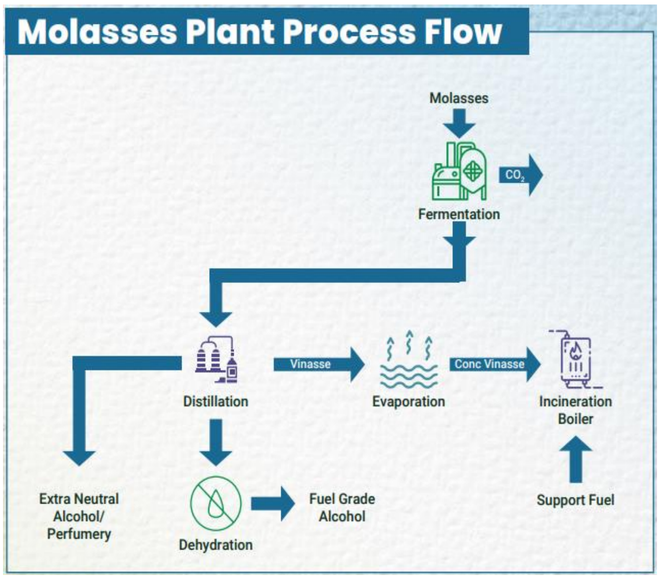
- This marks a significant shift in **feedstock sources for ethanol used** in **blending with petrol**.
- In the supply year from **November 2023 to October 2024**, sugar mills and distilleries supplied **401 crore litres of ethanol** to oil marketing companies up until June 30.
- Out of this, **211 crore litres (52.7%)** were produced using **maize and damaged foodgrains**, with the remaining 190 crore litres derived from sugarcane-based feedstocks like molasses and whole juice/syrup.

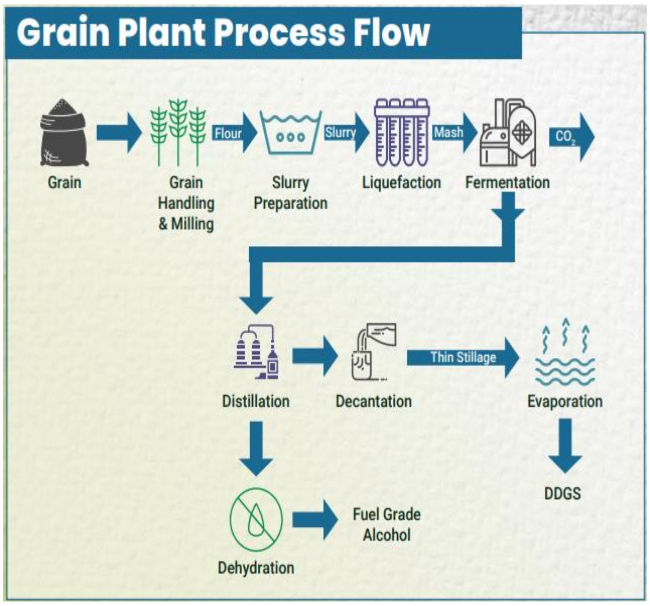
Historical Context:

- This is the first time **grain-based ethanol production** has **exceeded 50%**, showing a significant increase from **27.1% in 2022-23**, **13.6% in 2020-21**, and **zero in 2017-18**.

Ethanol Blending Targets: Ethanol is 99.9% pure alcohol suitable for blending with petrol. The government aims for **20% ethanol blending in petrol by 2025**.

- The **national average blending ratio** for the **current supply year** until June was **13%**, compared to **10% in 2021-22**, and only **1.6% in 2013-14**.





C-heavy molasses:

- It is the **final by-product** of the **sugar refining process**, containing **minimal sugar content** compared to **B-type molasses** and **sugarcane juice**.

Production Process:

- Ethanol production involves **fermenting sugar with yeast**. For **cane juice or molasses**, sucrose is broken down into glucose and fructose.
- **Grains,** however, contain starch, which must first be converted into sucrose and simpler sugars before **fermentation, distillation, and dehydration** into ethanol.

Program Evolution:

- **Until 2017-18**, ethanol was produced only from **C-heavy molasses**.
- The **Ethanol Blended Petrol (EBP)** program saw a boost **in 2018-19** when production from **B-heavy molasses** and **whole cane juice/syrup** was allowed, providing mills with higher prices to offset reduced sugar production.
- The introduction of **multi-feedstock distilleries** further propelled the program, allowing for **the production of both molasses** during the crushing season and grains during the off-season.

Shift to Maize:

- With the government's recent **restrictions on the use of Food Corporation of India (FCI) rice** and **B-heavy molasses** due to inflation concerns, **maize** has become the dominant feedstock.
- The **government has incentivized** this shift by setting an ex-distillery price of **Rs 71.86 per litre for maize-based ethanol**, higher than for other feedstocks.

Industry Response:

- While **maize farmers in states** like **Karnataka, Madhya Pradesh, Maharashtra, and Bihar** benefit from the increased demand, the **poultry and livestock feed industries** have raised concerns about a domestic maize shortage.
- They estimate **production at 36 million tonnes** (mt) versus a **requirement of 41 mt**, including for ethanol blending.
- To address this, the **government has allowed 0.5 mt of maize imports** at a **15% concessional duty**, though the industry has requested up to 5 mt of imports at zero duty.

Integrated Nutrient Management for Soil Health

News Excerpt:

ICAR study highlights the benefits of **Integrated Nutrient Management** for Soil Health.

More about the News:

- The **Indian Council of Agricultural Research (ICAR)** has revealed significant findings from its long-term fertilizer experiment conducted in Ludhiana.
- The study indicates that integrated nutrient management practices, including organic carbon, available nitrogen, phosphorus, and potassium, are effective in maintaining soil fertility while improving biological activity.
- In contrast, the imbalanced use of chemical fertilizers has been shown to decrease soil fertility.

Findings of the Study:

- **ICAR** also provided insights into nitrogen use efficiency, noting that it ranges between 30-50% depending on soil type and crop.
- The remaining nitrogen is lost primarily through nitrate leaching, which can lead to groundwater contamination if nitrate levels exceed permissible limits (10 mg NO3-N/L).
- Specifically, research on the rice-wheat system in Punjab, which spanned 30 years, demonstrated no adverse effects on soil organic carbon, available nitrogen (N), and phosphorus (P) when integrated nutrient management practices were used.
- This underscores that fertilizers do not harm soil fertility when applied in a balanced and judicious manner. However, soil fertility can be compromised due to the imbalanced use of chemical fertilizers combined with insufficient organic manure.
- To address these issues, **ICAR** recommends adopting soil test-based balanced and integrated nutrient management practices.

Integrated Nutrient Management:

- Integrated Nutrient Management refers to the **maintenance of soil fertility and of plant nutrient supply at an optimum level for sustaining the desired productivity** through optimization of the benefits from all possible sources of organic, inorganic and biological components in an integrated manner.
- The **aim** of **Integrated Nutrient Management (INM)** is to integrate the use of natural and man-made soil nutrients to increase crop productivity and preserve soil productivity for future generations. Rather than focusing nutrition management practices on one crop, INM aims at optimal use of nutrient sources on a cropping-system or crop-rotation basis. This encourages farmers to focus on long-term planning and make greater consideration for environmental impacts.

Key components of the INM approach include:

Testing procedures to determine nutrient availability and deficiencies in plants and soils. These are:

Plant symptom analysis – visual clues can provide indications of specific nutrient deficiencies. For example, nitrogen deficient plants appear stunted, and pale compared to healthy plants.

Tissue analysis and soil testing – where symptoms are not visible, post-harvest tissue and soil samples can be analyzed in a laboratory and compared with a reference sample from a healthy plant.

- Assessment of productivity and sustainability of farming systems. Different climates, soil types, crops, farming practices, and technologies dictate the correct balance of nutrients necessary. Once these factors are understood, appropriate INM technologies can be selected.
- This includes the combined use of inorganic and organic sources such as compost, bio-fertilizers, and green manure. Additionally, practices like split application and placement of nitrogenous fertilizers, use of slow-release N-fertilizers, nitrification inhibitors, and neem-coated urea are advised to minimize nutrient loss.

Government initiatives:

- The Indian Government supports these practices through dedicated schemes promoting organic farming, such as the **Paramparagat Krishi Vikas Yojana (PKVY)** and the **Mission Organic Value Chain Development in the NorthEast Region (MOVCDNER)**.
- Additionally, the Government has approved **Market Development Assistance (MDA**) of ₹1,500 per metric ton to promote organic fertilizers produced under the **GOBARdhan initiative**.
- This initiative, which supports various **biogas/CBG programs**, has a total outlay of ₹1,451.84 crore for FY 2023-24 to 2025-26, including a ₹360 crore allocation for research gap funding.
- The **PM-PRANAM initiative** further complements these efforts by encouraging sustainable and balanced fertilizer use, promoting alternative fertilizers, and supporting organic and natural farming practices.

By increasing soil fertility and improving plant health, INM can have positive effects on crops in the following ways:

- A good supply of phosphorus, nitrogen and potassium has been shown to exert a considerable influence on the susceptibility or resistance of plants towards many types of pests and diseases.
- A crop receiving balanced nutrition is able to explore a larger volume of soil in order to access water and nutrients. In addition, improved root development enables the plant to access water from deeper soil layers. With a well-developed root system, crops are less susceptible to drought.
- With appropriate potassium fertilization, the freezing point of the cell sap is lowered, thus improving tolerance to colder conditions.