



Monthly Editorial Consolidation



01st July to 31st July 2023

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Liquidity Management Dilemma

This editorial is based on RBI's liquidity management dilemma which was published in The Hindu Businessline on 28/06/2023. It talks about challenges of maintaining growth and inflation.

Tag: Indian Economy, GS Paper-3, Banking Sector & NBFCs, Statutory Bodies, Monetary Policy, Growth & Development

The **Reserve Bank of India (RBI)** faces a **twin challenge of managing inflation and supporting growth** in the context of the **Covid-19 pandemic** and its aftermath. RBI's job involves **balancing short-term as well as long-term growth**, ensuring **economic growth while meeting the inflation targets**. However, issues pertaining to the incomplete transmission of monetary policy and inherent weakness of inflation targeting approach, are some of the challenges faced by RBI.

The RBI's monetary policy stance and liquidity management framework are the key instruments to address this challenge. **Managing liquidity and financing the fiscal deficit** are crucial in balancing the inflation-growth dynamic.

The **liquidity management dilemma adds complexity to the RBI's task**, requiring careful navigation of liquidity conditions to support growth while managing inflation.

What is the RBI's

Liquidity Management Dilemma?

The **RBI's (Reserve Bank of India)** liquidity management dilemma is the challenge of balancing its objectives of price stability, growth and financial stability while dealing with the surplus liquidity situation and the government's borrowing requirements. Some of the aspects of this dilemma are:

- **The Trade-off Between Inflation and Growth:**
 - The RBI **has to maintain an appropriate level of liquidity** in the banking system **to support the economic recovery and credit growth**, while also **keeping inflation within its target range**.
 - The RBI has to use its policy tools, such as the **repo rate, the reverse repo rate, the marginal standing facility, the cash reserve ratio and the statutory liquidity ratio**, to influence the cost and availability of money in the economy.
 - However, these **tools may have different effects** on inflation and growth, **depending on the prevailing economic conditions** and expectations.

➤ The Coordination with Fiscal Policy:

- The RBI **has to support the financing of the fiscal deficit** in the context of **higher capital expenditure (3.32% of GDP)** provisioned in the **Union Budget**, which aims to boost public investment and support economic recovery.
- The RBI **has to manage the government's debt and cash balances**, conduct **open market operations**, and **participate in the primary and secondary markets for government securities**.
- However, these activities **may have implications for liquidity management**, monetary policy transmission, market stability and central bank independence.
- The RBI and the government need to coordinate and cooperate on their respective policies and operations to ensure consistency and effectiveness.

➤ The Development of Financial Markets:

- The RBI has to use market-oriented instruments, such as **variable rate reverse repo auctions, open market sales and central bank debt securities**, to absorb surplus liquidity from the banking system.
- These instruments **require a well-developed and liquid financial market to function effectively**.
- However, the financial **markets may be underdeveloped, fragmented or volatile**, which **may limit the scope and effectiveness** of market-oriented instruments.

How can RBI Overcome

the Liquidity Management Dilemma?

➤ Active Use of **Standing Deposit Facility (SDF)**:

- The RBI can **actively use the standing deposit facility to absorb surplus liquidity** from the banking system.
- By doing so, the RBI can prevent excess money supply, which could lead to inflationary pressures in the economy.

➤ Use of Instruments:

- The RBI can **utilize various instruments to manage liquidity effectively** which includes **variable rate reverse repo (VRRR)** auctions, open market sales, and adjustments to the standing deposit facility.
- These tools can be **employed to absorb excess liquidity** from the system and maintain a balance between inflation and growth objectives.

➤ Monitoring Cash Balances:

- The RBI should **closely monitor the cash balances** of the government with the central bank.

- This involves analyzing the **patterns of government cash flows**, deposits, investments, and the use of **ways and means advances** (WMA).
- By monitoring these factors, the RBI can identify any imbalances and take appropriate measures to manage liquidity effectively.

➤ **Strengthening Cash Management:**

- The government needs to improve its cash management practices to avoid prolonged surplus or deficit cash positions with the RBI.
- This includes ensuring that WMA is used for temporary cash flow mismatches rather than as a resource for financing the fiscal deficit.
- By strengthening cash management, the government can reduce the impact on RBI's liquidity management and overall monetary management.

What are the Challenges of Using Market-Oriented Instruments for Liquidity Management?

➤ **Depend on the Availability and Depth of the Financial Markets:**

- Market-oriented instruments, such as variable rate repo/reverse repo auctions, open market sales and central bank debt securities, require a well-developed and liquid financial market to function effectively.

➤ **Expose the Central Bank and the Financial Institutions to Market Risks:**

- Market-oriented instruments, involve transactions in financial assets that are subject to price fluctuations due to changes in market conditions, such as interest rates, exchange rates, credit ratings and market sentiments.
- These fluctuations may affect the value and returns of the assets and create losses or gains for the central bank and the financial institutions.

➤ **Require a Robust Regulatory and Supervisory Framework:**

- Market-oriented instruments, require a clear and consistent regulatory and supervisory framework to ensure transparency, accountability, compliance and risk management.
- The central bank and the financial institutions need to have adequate policies, procedures, systems and controls to monitor and manage their liquidity positions and risks.
- The regulators and supervisors need to have adequate powers, tools and resources to oversee and enforce the rules and standards.

What is Liquidity Management by RBI?

➤ **About:**

- Liquidity management is one of the key functions of the Reserve Bank of India (RBI) to ensure smooth functioning of the financial system and effective transmission of monetary policy.
- Liquidity management involves three aspects: the **operating framework, the drivers of liquidity, and the management of liquidity.**

➤ **The Operating Framework:**

- The operating framework of liquidity management by RBI is guided by the Liquidity Adjustment Facility (LAF) corridor, which is a set of policy instruments that influence the overnight interest rates in the money market.

➤ **The LAF corridor consists of three rates:**

- The policy repo rate (PRR), which is the key policy rate at which RBI lends to banks;
- The marginal standing facility (MSF) rate, which is the ceiling rate at which banks can borrow from RBI against government securities; and
- The standing deposit facility (SDF) rate, which is the floor rate at which banks can deposit their excess funds with RBI without any collateral.

➤ **Objective:**

- The objective of the LAF corridor is to keep the weighted average call rate (WACR), which is the operating target of RBI's monetary policy, in sync with the PRR.
- The WACR is the average interest rate at which banks lend and borrow from each other in the overnight interbank market.
- The PRR signals the stance of monetary policy and influences the cost and availability of money in the economy.

➤ **The Drivers of Liquidity:**

➤ **Currency in circulation:**

- This refers to the amount of cash held by the public outside banks. When people withdraw cash from banks or spend less cash, currency in circulation increases and reduces bank deposits and reserves.
- This creates a liquidity deficit in the banking system.
- When people deposit cash into banks or spend more cash, currency in circulation decreases and increases bank deposits and reserves.
- This creates a liquidity surplus in the banking system.

➤ **Net foreign exchange purchases/sales by RBI:**

- This refers to the net amount of foreign currency that RBI buys or sells from/to the market.
- When RBI buys foreign currency from exporters or other sources, it pays them in rupees and increases bank reserves and liquidity.
- When RBI sells foreign currency to importers or other sources, it receives rupees and reduces bank reserves and liquidity.

➤ **Government cash balances with RBI:**

- This refers to the amount of money that the government has deposited with RBI for its expenditure and revenue purposes.
- When the government spends more than it collects in taxes or other receipts, it draws down its cash balances with RBI and injects liquidity into the banking system.
- When the government collects more than it spends, it accumulates its cash balances with RBI and drains liquidity from the banking system.

➤ **Excess reserves maintained with RBI:**

- This refers to the amount of money that banks voluntarily keep with RBI over and above the statutory requirement of cash reserve ratio (CRR). CRR is the percentage of deposits that banks have to mandatorily maintain with RBI as a prudential measure.
- When banks keep more excess reserves with RBI, they reduce the availability of funds for lending and create a liquidity deficit in the banking system.
- When banks keep fewer excess reserves with RBI, they increase the availability of funds for lending and create a liquidity surplus in the banking system.

What Should be the Way Forward?

➤ **Monitoring Liquidity Position and Fiscal Deficit Financing:**

- The RBI needs to remain agile and flexible in managing liquidity through two-way operations.
- A closer watch on liquidity management and fiscal deficit financing will help strike a balance between inflation and growth objectives.

➤ **Strengthening the Monetary-Fiscal Interface:**

- Strict monitoring of the liquidity position by the RBI and financing pattern of the fiscal deficit by the government is essential.
- Addressing the issues of over-borrowing and improper cash management will improve the monetary-fiscal interface.

➤ **Evaluating Liquidity Management Instruments:**

- The RBI should continuously evaluate the effectiveness of liquidity management instruments like VRRR and SDF to ensure stability.

➤ **Coordination Between Fiscal Policy and Monetary Policy:**

- If the government truly wants to reduce lending rates in India in a meaningful and sustained manner, it would be far better served to focus on bringing down its own fiscal deficit.
- Separating debt management from monetary management in order to make the central bank more independent would be a good move.



Unleashing the Potential of Electronics Manufacturing

*This editorial is based on “**Electronic manufacturing in India needs rapid charging**” which was published in Financial Express on 28/06/2023. It talks about the scope of India becoming self-reliant and export-oriented in the electronics manufacturing sector and the challenges associated.*

Tag: Economy, GS Paper 2, Government Policies & Interventions, GS Paper 3, Growth & Development, Industrial Growth

India has mobilised itself to become **one of the fastest-developing economies in the world**. The **electronic manufacturing** narrative, in this context, is of particular significance. Companies over the world are beginning to look at the **Indian market as their next electronics manufacturing destination** to cater to the burgeoning domestic demand for electronic goods.

Realising the sector's potential for growth and its capability to provide large-scale employment, the **Indian government is enthusiastically pursuing the ‘Make in India’ program** as a core policy initiative to support and speed up the country's manufacturing sector including electronics.

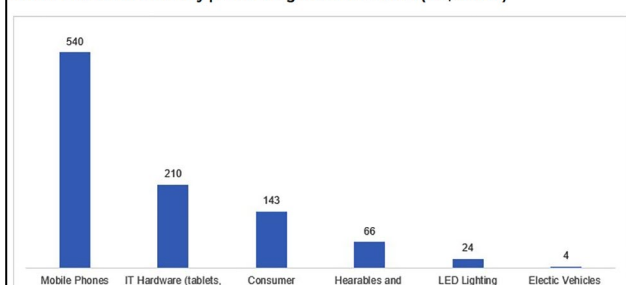
What is the Current Scenario of Electronics Production in India?

➤ **Opening Opportunities for India:**

- **Electronics is the largest manufactured and traded category globally**, valued at over USD 2 trillion. Out of this, **China supplies almost over 50%**.
 - However, the **rising wage cost in China is pushing buyers to diversify and de-risk their supply chains**, presenting a unique opportunity for India.

- India is one of the leading contenders for alternate solutions for global electronics companies and the electronics sector has the potential to become one of the top exports of India in the next 3-5 years.
- India is expected to become a USD 1 Trillion digital economy by FY26.
- **India's Production Scenario:** The electronics manufacturing industry grew from USD 37.1 billion in 2015-16 to **USD 67.3 billion in 2020-21** and **India targets to make it USD 300 billion by 2026 (domestic production)**.
 - As per **MeitY's Vision Document 2.0** - India can reach this target provided, specific product segments with high potential for scale are shortlisted and catered to by way of incentives and policy measures.
 - **Exports of USD 120-140 billion** are critical to reach the USD 300 billion mark for electronics manufacturing.
- **Schemes for Electronics Manufacturing:**
 - In order to position India as a global hub for **Electronics System Design and Manufacturing (ESDM)**, following schemes have been introduced:
 - The **PLI Schemes** for (a) **Large Scale Electronics Manufacturing** and (b) **IT Hardware**
 - **Scheme for Promotion of Manufacturing of Electronic Components and Semiconductors (SPECs)** and
 - **Modified Electronics Manufacturing Clusters Scheme (EMC 2.0)**
 - Additionally, **India's Semiconductor Mission** with an incentive outlay of ~USD 10 bn was launched with the vision to develop a sustainable semiconductor and display ecosystem in the country.
 - **100% FDI is allowed** for electronics under the automatic route, however, **in the case of defence electronics, FDI up to 49% is allowed** through automatic route (beyond 49% govt approval is required).

Global market share of key product segments in 2020-21 (US\$ billion)



Source: Vision Document on Electronics Manufacturing

What are the Challenges in Making India an Electronics Hub?

- **Duties as a Double-Edged Sword:**
 - **High import duties and strict localisation norms** are often imposed to promote local manufacturing. While they do succeed to an extent in ensuring local manufacturing, they also **negatively impact a country's global competitiveness**.
 - This is **particularly true in electronics where supply chains are globally intertwined**.
 - Countries like **Vietnam and China have more favourable subsidy structures** than India does in areas like **machinery** used for manufacturing, and research & development.
- **Lack of Component Ecosystem:**
 - Another challenge is **India lacking a robust ecosystem of companies locally manufacturing components** required for electronic products.
 - In the absence of a full-fledged component ecosystem in India, **these components are required to be imported**, resulting in increased costs and lead time for the manufacturers.
 - An active policy support to promote local manufacturing, including through domestic players, appears to be missing at present.
- **Skill Development:**
 - There is a **shortage of skilled labour in the electronics manufacturing sector**. To become a global hub, India needs to **invest in developing a highly skilled workforce** with expertise in areas such as electronics engineering, research and development, and advanced manufacturing technologies.
- **Regulatory Environment:**
 - The regulatory framework and bureaucratic procedures in India can be **complex and time-consuming**.
 - Streamlining regulations and reducing **bureaucratic red tape** would enhance the ease of doing business, attract investments, and foster a conducive environment for electronics manufacturing.
- **Environmental Sustainability:**
 - Electronics manufacturing often generates **electronic waste**, which poses environmental challenges.
 - **Absence of effective implementation of sustainable practices** like e-waste management and promotion of environmentally friendly manufacturing processes can do more harm to the environment than the intended good.

What Steps can be Taken to Improve India's Electronics Sector?

- **Increasing Scalability:**
 - Electronics manufacturing prospers in large clusters which provide requisite economies of scale.

However, India hasn't envisaged its manufacturing clusters at requisite scale.

- **India currently has almost 400 SEZs** across the country to drive exports, which even if put together, account for half the exports when compared to the **Shenzen SEZ in China**.
- **India must double down on creating mega, global scale electronics clusters** in a couple of locations across the country. **UP (Noida), Tamil Nadu, and Telangana are already emerging as front runners** and time has come to bet big to create electronics clusters of global scale.
- **Limiting High Exports Duty:**
 - In order to gain a fair share of the global electronics market, there needs to be a **complete overhaul in our thinking, especially for taxation**, labour laws and worker housing.
 - India is now **shifting from being an import-substitution electronics economy to an export-led economy**.
 - Complex duty structure with high and constantly changing rates serve as major barriers to making India an assembly hub for global OEMs and thus require a revisit.
- **Private-Government Collaboration:**
 - While India has been a leading manufacturer of mobile phones in the past few years, it has largely been in the low technology category. Now, Indian manufacturers can work towards becoming a part of the global value chains.
 - **Public-private collaboration, supportive policies and legal framework are key to driving this growth**.
 - The government's aim to create a **10 million-strong skilled IT workforce in the next three years**, roll out the semiconductor design-linked incentive policy, etc. - all these initiatives work towards building a robust electronic manufacturing ecosystem.
- **Looking for Cooperation amid Tensions:**
 - Some of the biggest electronics companies globally today are Chinese in addition, thousands of Chinese electronics components suppliers.
 - **Difficulties in cooperation arising due to border tensions** between India and China severely limits India's ability to attract large scale manufacturing investment.
 - In this context, the **China-Taiwan example can be emulated where**, despite being on the verge of war, **over 4,000 Taiwanese companies operate in China** including Foxconn, one of the biggest employers in China.

- **Finding a way to do business with China in India's enlightened self-interest** despite political tensions will be critical for success in electronics manufacturing.

➤ **Increasing Flexibility:**

- In 2008, Vietnam removed local content requirements on its FDI which encouraged Samsung to move its manufacturing base from South Korea to Vietnam, and **today, 60% of all Samsung smartphones are manufactured in Vietnam**.
- Other tech giants like LG, Apple, Nintendo, and several others have also transferred large parts of manufacturing to Vietnam.
- As a result, Vietnam has climbed from the **47th position in global electronics exports ranking in 2001 to the 7th position in 2021**.
- **Similar incentives regarding flexibility should be provided to Indian manufacturers** to utilise the workforce in line with practices in competing countries.

Conclusion

Emerging technologies such as **AI, ML, IoT, Augmented Reality (AR), Virtual Reality (VR)** and **Robotics** are transforming the industry while driving up demand for new electronics products. India is already a recognized global player in software development and by strengthening its hardware manufacturing capabilities, **India has the potential to emerge as a leading force in the electronics space as well**.

It is important to note that the **vision of a 'Self-Reliant India'** will only be realised 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.

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Comparing India and China's Economic Growth

*This editorial is based on **No Leapfrogging in sight** which was published in The Indian Express on 03/07/2023. It talks about the comparison of India's economy to that of China in 2007 and the emerging differences.*

Tag: Indian Economy, GS Paper-3, Growth & Development, Industrial Policy, Industrial Growth

India's **current economic situation is similar to China's in 2007**. According to Moody's, India's economy

has recently surpassed USD 3.5 trillion and is expected to exceed USD 3.7 trillion in 2023, similar to China's comparable economic size in the past. In terms of **per capita income**, China had USD 2,694 in 2007, while the **International Monetary Fund (IMF)** projects India's per capita income to rise from USD 2,379 in 2022 to USD 2,601 in 2023.

While there are some similarities between India's current economic situation and China's in 2007, the differences between them are more significant and have important consequences for India's growth path. These differences affect how India's economy develops in the future.

What are the Differences Between the Economies of India and China?

- **The Gap in Investment Ratios:** China's investment to Gross Domestic Product (GDP) ratio has been consistently high, averaging around 40% from 2003 to 2011, while India's investment ratio during its high growth phase was around 33%, lower than China's.
 - This suggests that **China has been allocating a large proportion of its economic resources toward investment**, which has contributed to its rapid economic growth.
 - From 2012 to 2021, the **gap between China and India widened even more**, with China's investment ratio averaging almost 43% while India's fell to around 29%.
- **Twin Balance Sheet Issue in India:** India's investment landscape encountered a significant slowdown, predominantly triggered by the **twin balance sheet problem**.
 - The twin deficit problem (**Current Account Deficit (CAD)** and **Fiscal Deficit**), especially the worsening current account deficit, may **compound the effect of costlier imports, and weaken the value of the rupee** thereby further aggravating external imbalances.
- **Disparity in the Composition of Exports and Imports:** In fiscal year 2022-23, India's exports of goods and services reached over USD 770 billion, while imports were around USD 890 billion. However, **in 2007 when China's economy was of a similar size, China's exports had already exceeded USD 1.2 trillion**, primarily driven by the export of goods rather than services.
 - Additionally, China's imports were USD 950 billion, indicating a higher level of integration into the global economy.
- **Difference in Tariff Rates:** China has successfully positioned itself as a central hub for global supply chains, **partly due to its consistent reduction in**

tariff rates. From 2003 to 2007, China's average tariff rate decreased from 10.69% to 8.93% and further declined to 5.32% in 2020. **This reduction in tariffs has facilitated China's integration into global trade and attracted foreign investments.**

- In contrast, India's tariff rate dropped from 25.63% in 2003 to 8.88% in 2017, indicating progress in trade liberalisation. However, **since then, India's tariff rate has been increasing, which may hamper its ability to attract investment and fully integrate into global supply chains.**
- **Labour Force Participation:** China has consistently maintained a high labour force participation rate over the years. In 2007, **China's labour force participation rate was almost 73%** (for individuals aged 15 and above, according to estimates by the **International Labour Organisation (ILO)**). However, this rate has gradually declined and currently stands at around 67%.
 - On the other hand, **India's labour force participation rate is estimated to be around 50% in 2022**, which suggests a lower proportion of the population actively participating in the workforce compared to China.
- **Lack of Employment Generation:** While a significant number of jobs have been created in construction and services such as trade and transport in India, **formal manufacturing is much more productive in terms of output per worker**.
 - According to the **economic survey**, **formal manufacturing is twice as productive as transport, 2.5 times more productive than trade, and 3.75 times more productive than construction.**
 - However, the challenge lies in the limited job opportunities being generated in the formal manufacturing sector, which **hampers India's economic growth potential.**
- **Participation of Women:** The difference in labor force participation between China and India is mainly attributed to the **participation of women**. In China, **the female labor force participation rate was 66% in 2007, but it has declined to 61% in 2022**. In India, the female participation rate was much lower at **30% in 2007, and it has further decreased to 24% in 2022**.
 - This means that a **smaller percentage of women in India are actively engaged in the labor force compared to China.**

What are the Similarities Between India's Current Economic Situation and China's in 2007?

- **Sectoral Distribution of the Labour Force:** In 2007, **41% of China's labour force worked in agriculture, 27% in industry (including construction), and 32% in**

services. In comparison, for India in 2021, the figures were 44% in agriculture, 25% in industry, and 31% in services. It's important to note that the actual number of people in each sector differs between the two countries.

- This comparison provides insights into the sectors where a significant number of people are employed.
- **Decline in the Labour Force in Agriculture:** In China, the rate of decline was around 1.5 percentage points per year from 2003 to 2019, while in India, it was around 1 percentage point. The question arises regarding the future employment prospects for those leaving the agricultural sector in India if this trend continues.
- This difference in the transition away from agriculture between India and China reflects the challenges and opportunities each country faces in managing labor market dynamics and ensuring productive employment for their populations.

What can be the Way Forward?

- **Increase Investment Activity:** Encouraging both domestic and foreign investments by creating a favorable business environment, simplifying regulatory procedures, and providing incentives for industries.
- **Boost Exports:** Promoting exports by identifying sectors where India has a comparative advantage, improving infrastructure and logistics, and providing support to exporters.
- **Enhance Female Labour Force Participation:** Taking steps to increase the participation of women in the workforce through gender equality measures, access to education and skill development etc.
- **Generate Employment Opportunities in Formal Manufacturing:** Focusing on creating more job opportunities in the formal manufacturing sector for low- and semi-skilled workers. This can be achieved through policies that promote the growth and productivity of the manufacturing sector, adoption of advanced technologies, and skill development programs.
- **Maintain a Conducive Investment Climate:** Continuously improving ease of doing business, reducing bureaucratic hurdles, enhancing transparency, and strengthening governance to attract investments and boost economic growth.
- **Emphasise Education and Skill Development:** Investing in education and skill development programs to equip the workforce with the necessary skills for the evolving job market, fostering innovation and entrepreneurship.

- **Strengthen Infrastructure:** Prioritising infrastructure development, including transportation, logistics, power, and digital connectivity, to support economic activities and facilitate trade and commerce.
- **Foster Regional and International Collaborations:** Actively engaging in regional and international collaborations to expand market access, participate in global value chains, and leverage opportunities for growth and development.

Conclusion

India presents an immensely attractive opportunity for global businesses. With its vast market, abundant labour force, and stable government, it serves as an ideal destination for manufacturing and investment. However, to fully harness its potential, India must take proactive measures to enhance its competitiveness on the global stage. By implementing strategic reforms and creating a favorable business environment, India can solidify its position as a highly enticing hub for businesses worldwide.



Fiscal Health of the States

This editorial is based on A macro view of the fiscal health of States which was published in The Hindu on 05/07/2023. It talks about the fiscal health of Indian States.

Tag: Indian Economy, GS Paper-3, Mobilization of Resources, Fiscal Policy, Government Budgeting

In India, the States mobilize more than a third of total revenue, spend 60% of combined government expenditure, and have a share in government borrowing that is around 40%. Given the size of the fiscal operation of States, an up-to-date understanding of their finances is critical in order to draw evidence-based inferences on the fiscal situation of the country.

However, due to the absence of aggregation of individual State Budget data, a consolidated view of general government finances is not readily available. Every year, this data becomes available only after the publication of the Reserve Bank of India's (RBI) Annual Study on State Finances, which has revealed the fiscal situation of States based on key data from their individual budgets for 2023-24.

The data are from 17 major States that account for more than 90% of the total spending of all States. Therefore, the fiscal issues from their budgets reflect the State finances in India. Indian States have shown remarkable fiscal consolidation after the Covid-19 pandemic, but they still face fiscal challenges in containing their revenue deficits.

How have Indian

States Performed in Fiscal Consolidation?

➤ Fiscal Consolidation:

- Fiscal consolidation refers to the process of reducing fiscal deficits and public debt by adjusting expenditure and revenue policies.
- Indian States have achieved significant fiscal consolidation after the Covid-19 pandemic, reducing their fiscal deficits from 4.1% of GDP (Gross Domestic Product) in 2020-21 to 2.9% of GDP in 2023-24 (BE).

➤ Fiscal Consolidation is Significant:

- States managed to be fiscally prudent despite a contraction in revenues during the peak of Covid-19.
- States coordinated with the Union Government to provide emergency provision for health spending and livelihood during the pandemic.
- States reprioritized expenditure and quickly contained the fiscal deficit.
- States benefited from improved GST (Goods and Services Tax) collection and higher tax devolution due to buoyant central revenues.
- States also witnessed recovery in non-GST revenues after the pandemic.

What are the

Fiscal Challenges Faced by Indian States?

- Despite the reduction in fiscal deficit, Indian States still face fiscal challenges, especially in containing their revenue deficits, which have not declined proportionately with fiscal deficits.
- Revenue deficit refers to the excess of revenue expenditure over revenue income in a financial year.
- Revenue Related Challenges:
 - The impact of the Covid-19 pandemic on the economic activity and tax collection.
 - The uncertainty and volatility of GST revenue and compensation.
 - The dependence on tax devolution from the Union and its formula-based allocation.
 - The erosion of fiscal autonomy due to the subsumption of various taxes under GST.
 - The limited scope for raising non-tax revenues such as user charges, fees, etc.
 - The compliance and administrative issues in collecting own taxes such as property tax, stamp duty, etc.
- Major Revenue Deficit States:

- Out of 17 major States, 13 States have revenue deficits, and seven States have revenue deficits as the main driver of their fiscal deficits.

- These States are Andhra Pradesh, Haryana, Kerala, Punjab, Rajasthan, Tamil Nadu, and West Bengal.
- They also have large debt to GSDP ratios.

➤ Expenditure Related Challenges:

- The rising demand for public health and education services due to the pandemic and demographic factors.
- The need to invest in infrastructure and urban development to support growth and employment.
- The fiscal implications of various welfare schemes and subsidies for the poor and vulnerable sections.
- The burden of pension and salary liabilities for the public sector employees.
- The contingent liabilities arising from guarantees, loans, etc. given to public sector enterprises and other entities.
- The sustainability and servicing of the debt stock accumulated over the years.

What are the Factors

for Re-emergence of Revenue Deficit?

- Pressure on revenue expenditure due to Covid-19 pandemic and other social welfare schemes.
- Slowdown in economic growth and tax revenues due to structural and cyclical factors.
- Inadequate compensation for GST shortfall by the Union Government.
- Rigidities in revenue expenditure due to committed liabilities, such as salaries, pensions, interest payments, etc.

How can Indian

States Reduce their Revenue Deficits?

- Indian States can reduce their revenue deficits by various measures, such as:
 - Reducing public expenditure, especially on non-productive or unnecessary items, such as excessive subsidies, administrative costs, etc.
 - Increasing revenue, especially from tax and non-tax sources, such as improving tax compliance, widening the tax base, rationalizing tax rates, or increasing the income of public sector undertakings, etc.
 - Achieving faster economic growth, which can boost revenue collection and reduce expenditure on social welfare schemes.

- Linking **interest-free loans or grants** from the Union Government to revenue deficit reduction targets, which **can create an incentive** for fiscal discipline.
- Implementing performance incentive **grants for revenue deficit reduction**, based on the approaches suggested by previous **Finance Commissions**.

What are the Benefits of Reducing Revenue Deficits for Indian States?

- Improving the **fiscal health and sustainability** of State finances and reducing their debt burden.
- Enhancing the **quality of expenditure and increasing the share of capital expenditure** in total expenditure.
- Boosting **public investment in infrastructure and human capital**, which can foster economic growth and development.
- Strengthening the credibility and confidence of investors and creditors in State finances.
- Ensuring **macroeconomic stability and coordination** with the Union Government.

What Should be the Way Forward?

- **Adopting a Credible and Sustainable Fiscal Adjustment Plan:**
 - Balance short-term and long-term fiscal objectives
 - Take into account economic and institutional context of each State.
 - Identify and implement cost-cutting and revenue-enhancing measures.
- **Improving Fiscal Transparency and Accountability:**
 - Provide timely and reliable data on budgetary performance and outcomes.
 - Adhere to fiscal rules and targets prescribed by Finance Commissions and FRBM Acts.
 - Monitor and evaluate fiscal performance and outcomes regularly.
- **Enhancing Fiscal Capacity and Autonomy:**
 - Rationalize tax structure and administration
 - Diversify revenue sources
 - Leverage assets and resources
 - Access market borrowings at competitive rates
- **Fostering Fiscal Cooperation and Coordination:**
 - Resolve pending issues related to GST compensation and devolution
 - Harmonize fiscal policies and indicators
 - Participate in intergovernmental forums and mechanisms.
 - Share best practices and experiences

What is FRBM Act?

➤ **About;**

- It was enacted in August 2003.
- It aims to make the Central government responsible for ensuring inter-generational equity in fiscal management and long-term macro-economic stability.
- The Act envisages the setting of limits on the Central government's debt and deficits.
- It limited the fiscal deficit to 3% of the GDP.
- To ensure that the States too are financially prudent, the 12th Finance Commission's recommendations in 2004 linked debt relief to States with their enactment of similar laws.
- The States have since enacted their own respective Financial Responsibility Legislation, which sets the same 3% of Gross State Domestic Product (GSDP) cap on their annual budget deficits.
- It also mandates greater transparency in fiscal operations of the Central government and the conduct of fiscal policy in a medium-term framework.
- The Budget of the Union government includes a Medium-Term Fiscal Policy Statement that specifies the annual revenue and fiscal deficit goals over a three-year horizon.
- The rules for implementing the Act were notified in July 2004. The rules were amended in 2018, and most recently to the setting of a target of 3.1% for March 2023.
- The NK Singh committee (set up in 2016) recommended that the government should target a fiscal deficit of 3% of the GDP in years up to March 31, 2020, cut it to 2.8% in 2020-21 and to 2.5% by 2023.
- **Relaxation under the FRBM Act**
 - **Escape Clause:**
 - Under Section 4(2) of the Act, the Centre can exceed the annual fiscal deficit target citing certain grounds.
 - National security, war
 - National calamity
 - Collapse of agriculture
 - Structural reforms
 - Decline in real output growth of a quarter by at least three percentage points below the average of the previous four quarters.

India's Water Challenges and Har Ghar Jal Scheme

This editorial is based on "Clearing the water: on piped, potable water to rural households" which was published in The Hindu on 04/07/2023. It says that while some success of schemes like the Har Ghar Jal mission, the access to clean tap water remains scarce in rural India; a large portion of the population lacks this fundamental necessity.

Tag: Indian Polity and Governance, GS Paper-2, Government Policies & Interventions

Access to potable tap water is a **fundamental necessity** for every household for ensuring **basic health** and **hygiene**. However, in rural India, a significant portion of the population still lacks this essential amenity.

Out of the approximately **25 crore households** in India, **rural areas** account for around **19.5 crore households**. Unfortunately, the availability of a **tap water connection** that can deliver **55 liters of clean drinking water per person per day** (envisaged under Har Ghar Jal Scheme) is a rarity in rural regions.

This scarcity of access to **potable tap water** has several implications for the rural population. It hampers daily activities such as **cooking, cleaning, and personal hygiene**. Communities often have to rely on alternative sources like **wells, hand pumps, or water from natural sources**, which may not always meet the **necessary standards of cleanliness and safety**.

Effective implementation of the "Har Ghar Jal Mission" is needed to resolve the Challenges of India's Rural Water Connectivity.

What is Har Ghar Jal Scheme?

- **Har Ghar Jal Scheme** is part of the **Jal Jeevan Mission** undertaken by the **Ministry of Jal Shakti** in India. It aims to provide every household in the country with access to **pipled water connections**.
 - The term "**Har Ghar Jal**" translates to "**water in every home**" and reflects the mission's objective.
- The "**Har Ghar Jal**" scheme has resulted in a significant rise in the percentage of households in India that now have access to piped water connections, reaching **64%**, indicating a **substantial progress** since the mission was launched.
- In addition to providing **pipled water connections** to households, the scheme also includes the installation of water connections in **village schools,anganwadis, and community buildings**.

What are the

Achievements of the Har Ghar Jal Scheme?

- Since **2019**, around **nine crore households** have gained exclusive access to **pipled water**.
- Some larger states, such as **Gujarat, Haryana, and Punjab**, have reported **100% compliance** with the "**Har Ghar Jal**" mission.
- According to the information reported by the states, **1,68,157 villages** have been designated as '**Har Ghar Jal**'.
 - Out of the reported '**Har Ghar Jal**' villages, about **35% or 59,000 villages** have been officially '**certified**'.
- By **April 2024**, it is projected that only **75%** of rural households in villages will have **access to taps providing drinking water**.

What are the Challenges

Associated with Har Ghar Jal Scheme?

- **Covid-19 Pandemic:** The global pandemic has had wide-ranging impacts on various sectors, including infrastructure development projects like the "**Har Ghar Jal**" mission.
 - The restrictions have **affected the availability of necessary materials** like pipes and other construction resources resulting in further delays, hindering the pace of implementation.
- **Water Contamination:** Certain regions, such as **West Bengal and Kerala**, face ongoing issues with **water contamination, posing obstacles** in ensuring access to **safe drinking water**.
 - Besides, there is also a shortage of **skilled workers** for **constructing tanks, cisterns, and water connections** of satisfactory quality in various states.
- **Implementation Delay:** In some cases, work on providing tap connections to households under the **JJM** has not even begun, resulting in delays in achieving the targets.
 - Out of the approximately **19.5 crore households** aimed to be covered by the scheme, around **1 crore households (~5% of total)** have yet to commence any work.
- **Certification and Connectivity:** While there has been progress in increasing the number of tap connections in states like **Uttar Pradesh and Rajasthan**, the **certification and full connectivity of villages still remain low**, indicating the need for further efforts.
 - Majority of villages fall short of having **all households fully connected**. Instead, these villages have achieved somewhere between **half or three-fourths** of their households being connected with **pipled water**.

What Steps can be Taken to Make Har Ghar Jal Scheme More Effective?

- **Strengthening Skilled Workforce:** Efforts should be made to **address the shortage of skilled manpower** by providing training programs and **promoting skill development** in the **construction and water management sectors**.
- **Water Quality Monitoring:** Implementing **robust water quality monitoring systems** and measures to **mitigate water contamination issues**, including regular testing and treatment, can ensure the delivery of safe drinking water.
- **Accelerated Implementation:** Expedite the implementation of the **Jal Jeevan Mission** by focusing on the **villages and households** where work has not yet commenced, ensuring **timely execution to meet the targets**.
- **Certification and Connectivity Drive:** Increase the number of **certified and fully connected villages** by streamlining the **certification process**, **promoting awareness among communities**, and providing **necessary infrastructure to enable access to tap water connections**.
- **Monitoring and Verification Processes:** It is crucial to ensure **robust monitoring and verification processes** to ascertain the **accuracy of the reported figures**.
 - **Independent assessments, evaluations, and audits** can be employed to verify the **progress of the mission** and **enhance transparency**.
- **Establishment of Transparent and Reliable Information Mechanism:** The central government should establish a **mechanism** to provide **transparent and reliable information** about the progress of the mission.
 - This would enable stakeholders and the public to have a **clearer understanding** of the **mission's achievements, challenges**, and areas that require further attention.



India's Window of Opportunity

*This editorial is based on **How India can leverage its biggest strength** which was published in The Indian Express on 06/07/2023. It talks about opportunities and challenges associated with demographic dividend.*

Tag: Indian Economy, GS Paper-1, GS Paper-2, Government Policies & Interventions, GS Paper - 3, Growth & Development, Employment

India is the **youngest among the most populous countries** in the world, with an average age of 29 years.

India, with its huge population, is now in a phase in which its **working-age population is rising**, and **India's old-age dependency ratio** will reach **37 per cent in 2075**. The **world is ageing** with an increase in the aged-population and a drastic reduction in **fertility rates**. This gives India a **unique opportunity to reap the benefits** of its favourable demographic composition, which can boost its economic growth and social development. However, to achieve this potential, India **needs to address some key challenges** and implement some strategic reforms in various sectors.

What are the Opportunities for India's Demographic Dividend?

- **Higher Economic Growth:**
 - A large and young working-age population can increase the **labour supply, productivity, savings, and investment in the economy**, leading to higher GDP growth and per capita income.
- **Greater Competitiveness:**
 - A skilled workforce can enhance India's competitiveness in the global market, especially in labour-intensive sectors **such as manufacturing, services, and agriculture**.
 - India can also benefit from the rising demand for its exports in the ageing markets of developed countries.
- **Social Development:**
 - It can contribute to social development by **improving health, education, gender equality, and social cohesion**.
 - An empowered population can also participate more actively in democratic processes and civic engagement.
- **Innovation and Entrepreneurship:**
 - A creative population can foster innovation and entrepreneurship in various fields, such as **science, technology, arts, and culture**.
 - An aspirational population can also create new markets and opportunities for economic diversification.

What are the Key Challenges to Reap Demographic Dividend?

- **Unemployment and Jobless Growth:**
 - Without proper policies, the increase in the working-age population may lead to **rising unemployment, fueling economic and social risks**.
 - Jobless growth is prominent in India, where the existing working-age population is not even absorbed.

- India's unemployment rate was 7.1 percent in Jan 2023, according to the Centre for Monitoring Indian Economy (CMIE).
- **Falling Female Labour Force Participation:**
 - Socio-cultural factors and **rising family incomes have been the main reasons** for the decline in **India's female labour force participation** (FLFP).
 - A significant proportion of qualified women drop out of the workforce for reasons ranging from **no suitable jobs in the locality** particularly in rural areas to family responsibilities and marriage.
- India's FLFP rate is lower than the global average.
 - According to CMIE data, as of December 2021, while the male LFPR was 67.4%, the female LFPR was as low as 9.4%.
- **Lack of Skills and Human Development:**
 - Skilling and reskilling are vital in current times because of the increasing new fields and opportunities.
 - India may not be able to take advantage of the opportunities because of a low **human capital base and less skilled labour force**.
 - According to **ASSOCHAM**, **only 20-30 percent of engineers** find a job suited to their skills. Thus, a low human capital base and **lack of skills is a big challenge**.
 - India ranks **132 out of 191** countries in UNDP's **Human Development Index** (HDI) (2021-22), which is shocking.
 - HDI measures the average achievements in three basic dimensions of human development: **a long and healthy life, access to knowledge, and a decent standard of living**.

How can India Improve its Demographic Dividend?

- **Skilling and Employment Generation:**
 - India has a **huge labour force of about 500 million people**, which is expected to grow further in the coming years.
 - However, most of them are either unskilled or under-skilled, and face low productivity and employability in the changing market scenario.
- **Improve LFPR:**
 - India needs to **improve its labour force participation rate** (LFPR), which is currently **around 50 per cent**, by creating more employment opportunities for the youth who enter the job market every year.
 - This requires a shift from the low-productivity agriculture sector to the higher-productivity manufacturing and services sectors, which can absorb more labour and generate more income.

➤ **Improve Skill Development Programmes:**

- India also needs to enhance the quality and relevance of its skill development programmes, which aim to train and certify millions of workers in various sectors.
- These programmes **should be aligned with the industry demand, global standards and emerging technologies**, and should provide lifelong learning opportunities for the workers.
- However, these **need to be scaled up and improved** further to reach out to more workers, especially those in the **informal sector**.

➤ **Vision 2025:**

- The skill mission has the MSDE (**Ministry of Skill Development and Entrepreneurship**) Vision 2025, which is set to improve linkages between **education and skill, catalyse demand for formal skills** and create a high-skilled ecosystem.

➤ **Health and Wellness:**

- India has made significant progress in improving its **health indicators, such as life expectancy, infant mortality rate and maternal mortality ratio**, over the years.
 - However, it still faces many challenges in ensuring health equity and quality for its large and diverse population.
- India has a **huge burden of communicable and non-communicable diseases**, which affect the health and productivity of its workforce.
 - It also faces a shortage of health infrastructure, human resources and financial resources to provide adequate and affordable health services to all.
- **Invest in Public Health System:**
 - India needs to invest more in its public health system, which caters to about 70 per cent of its population. It also **needs to strengthen its primary health care network**, which is the first point of contact for most people.
- **Ensure Affordability of Drugs:**
 - India is also a **pharmaceutical giant with a \$50 billion industry** and is a global leader in vaccines, accounting for about 60 percent of **DPT, BCG and measles vaccines**.
 - However, it needs to ensure that **these drugs and vaccines are accessible and affordable** for all sections of society.

➤ **Education and Innovation:**

- India has a large pool of young and talented people, who can contribute to its economic growth and social development.

- However, it also has a **high rate of illiteracy, dropout and learning deficit among its children** and youth, which hampers their potential and aspirations.
- **Ensure Universal Access to Education:**
 - India needs to ensure **universal access to quality education at all levels** of school education, from pre-primary to higher secondary.
 - It also needs to improve the learning outcomes of its students by enhancing the **curriculum, pedagogy, assessment and teacher training systems**.
 - It also needs to reduce the disparities in education based on gender, caste, region and socio-economic status.

What are Some of the Key Government Initiatives?

- **For Skilling and Entrepreneurship:**
 - Jan Shikshan Sansthan,
 - Pradhan Mantri Kaushal Vikas Yojana
 - National Apprenticeship Promotion Scheme
 - Skill India,
 - Make in India,
 - Start-up India
- **For Health and Wellness:**
 - Ayushman Bharat
 - Swachh Bharat Mission,
 - Pradhan Mantri Bhartiya Janaushadhi Pariyojana
- For Education and Innovation:
 - Samagra Shiksha programme
 - National Education Policy 2020

What Should be the Way Forward?

- **Pursuing Capability Approach:**
 - Recognize the multidimensional nature of human well-being and development and go beyond narrow indicators such as GDP per capita or poverty headcount ratio.
 - Identify the gaps and inequalities in the capabilities of different groups and regions in India and address them through targeted interventions and empowerment strategies.
 - Enhance the agency and participation of people in shaping their own lives and influencing the decisions that affect them, especially the marginalized and vulnerable sections of society.
 - Promote social justice and human rights as the guiding principles for development policies and practices and ensure accountability and transparency in governance.

- Foster a culture of innovation and creativity that can leverage the talents and aspirations of India's young population for social and economic transformation.
- **Accelerate Manufacturing Activity:**
 - The potential of the manufacturing sector **to create millions of jobs and boost exports needs to be tapped**.
 - Manufacturing can provide employment opportunities for the large and young labour force, especially those with low or medium skills.
 - Manufacturing can **also increase India's competitiveness** in the global market, diversify its export basket, and reduce its trade deficit.
 - Manufacturing can also stimulate innovation and technological upgrading in the economy.
- **Enhancing Business Environment:**
 - India needs to **improve its business environment, infrastructure, logistics, and trade facilitation** to attract more domestic and foreign investment in manufacturing.
- **Promote Labour-intensive Sectors:**
 - India also needs to promote labour-intensive sectors, **such as textiles, garments, leather, footwear, toys, and electronics**, which have high employment elasticity and export potential.
 - India also needs to support micro, small, and medium enterprises (MSMEs), which are the backbone of the manufacturing sector, by providing them access to credit, technology, markets, and skills.
- **Leverage Digital Technologies:**
 - Digital technologies can provide **new opportunities for growth, innovation, and inclusion** in various sectors of the economy.
 - Digital technologies can enable **access to information, services, markets, and finance for millions of people**, especially those in remote or underserved areas.
 - Digital technologies can also enhance efficiency, transparency, accountability, and quality in various domains, such as governance, education, health care, agriculture, retail, and e-commerce.

■■■

Internationalization of Rupee

*This editorial is based on **Internationalizing the rupee without the 'coin tossing** which was published in The Hindu on 07/07/2023. It talks about benefits and challenges of internationalization of rupee.*

Tag: Indian Economy, GS Paper - 3, Banking Sector & NBFCs, Statutory Bodies, Monetary Policy, Growth & Development

The rupee is the official currency of India, **the world's fifth-largest economy** by **nominal GDP** and the **third largest by purchasing power parity**. The rupee is also used as a **legal tender in some of India's neighbouring countries**, such as Bhutan and Nepal. However, the rupee is far from being a global currency, with a **very low share** in the international **foreign exchange market** and trade transactions.

Internationalisation of the rupee **refers to the process of increasing the use and acceptance** of the rupee outside India, for **trade, investment, reserve** and other purposes. Internationalising the rupee can have several benefits for India, however, it also entails several challenges and risks.

What is the Current

Status for the Rupee's Internationalization?

- **Limited Progress in Internationalisation:**
 - The rupee is far from being internationalized, the daily average share for the rupee in the global foreign exchange market hovers around 1.6%, while India's share of global goods trade is mere 2%.
- **Steps Taken to Promote Internationalisation:**
 - India has taken some steps to promote the internationalisation of the rupee (e.g., enable **external commercial borrowings** in rupees), with a push to Indian banks to open **Rupee Vostro accounts** for banks from **Russia, the UAE, Sri Lanka and Mauritius** and measures to trade with about 18 countries in rupees instituted.
 - However, such transactions have been limited, with **India still buying oil from Russia in dollars**.
- **Constraints on Currency Exchange:**
 - India does **not permit full capital account convertibility** (i.e., **allowing free movement of local financial investment** assets into foreign assets and vice-versa), with significant constraints on the exchange of its currency with others, driven by past fears of capital flight (i.e., outflow of capital from India due to monetary policies/lack of growth) and exchange rate volatility, given significant current and capital account deficits.
- **Concerns of Neighbouring Countries:**
 - The rupee's internationalization **cannot make a start without accounting for the concerns** expressed by India's neighbours.
 - The **demonetisation** of 2016 also shook confidence in the Indian rupee, especially in Bhutan and Nepal.
 - Both countries continue to fear additional policy changes by the RBI (including further demonetisation).

- The move, in 2023, to **withdraw the ₹2,000 note** has also impacted confidence in the rupee.

What are the

Benefits of Internationalising the Rupee?

- **Reduced Dependency on Foreign Currencies:**
 - Internationalisation of the rupee would reduce India's reliance on foreign currencies, **such as the US dollar**, for international trade and financial transactions.
 - This would **enhance India's economic sovereignty** and **reduce exposure** to currency fluctuations.
- **Increased Global Trade:**
 - Internationalisation of the rupee **can facilitate smoother international trade** by allowing parties to transact directly in rupees.
 - It would **eliminate the need for currency conversions**, reducing **transaction costs** and simplifying cross-border trade.
- **Enhanced Financial Integration:**
 - A globally recognised and widely used rupee can lead to increased financial integration.
 - It would **attract foreign investors** and **promote capital inflows**, leading to **greater investment opportunities** and liquidity in the Indian financial markets.
- **Improved Monetary Policy Effectiveness:**
 - Internationalisation can enhance the effectiveness of India's monetary policy.
 - With a broader international reach, the **Reserve Bank of India (RBI)** can use the exchange rate as a tool to manage inflation and stimulate economic growth.
 - It **provides greater flexibility** in managing monetary conditions and responding to economic challenges.
- **Strengthened Regional Influence:**
 - A globally accepted rupee can strengthen India's regional influence and position it as a major economic player in Asia.
 - It would **promote trade and investment** within the region, bolstering economic partnerships and collaborations.
- **Diversification of Reserves:**
 - Internationalisation of the rupee would **increase its attractiveness** as a reserve currency.
 - Central banks and foreign governments may choose to hold rupees as part of their foreign exchange reserves, providing diversification and stability to their portfolios.

➤ Development of Financial Services:

- As the rupee gains international acceptance, financial services tied to rupee-denominated transactions, **such as trade financing, currency hedging, and settlement services**, would see growth.
- This can foster the development of a robust and competitive financial services sector in India.

What are the Challenges of Internationalizing the Rupee?

➤ Exchange Rate Volatility:

- Internationalising the rupee **exposes it to greater exchange rate volatility**. Fluctuations in the value of the rupee **can impact trade competitiveness, foreign investment flows**, and financial market stability.
- Managing exchange rate risks becomes crucial in order to mitigate potential adverse effects.

➤ Capital Flight and Financial Stability:

- Opening up the rupee to international markets may lead to capital flight if investors lose confidence in the currency or anticipate unfavourable economic conditions.
- This **can strain the country's foreign exchange reserves**, impact financial stability, and create challenges for **monetary policy** management.

➤ Capital Controls:

- India still has capital controls in place that limit the ability of foreigners to invest and trade in Indian markets.
- These **restrictions make it difficult for the rupee** to be used widely as an international currency.

➤ Competing Currencies:

- The rupee faces competition from established **international currencies like the US dollar, euro, and yen**, which enjoy widespread acceptance and liquidity.
- Gaining market share and displacing these dominant currencies can be a significant challenge.

➤ Confidence and Perception:

- The credibility and stability of India's economic and monetary policies play a crucial role in building confidence in the rupee.
- Any perception of **policy uncertainty, lack of transparency, or geopolitical risks** can impede the internationalisation process.

➤ Adoption by Market Participants:

- Convincing market participants, including **businesses, individuals, and financial institutions**, to adopt the rupee for international transactions requires trust, familiarity, and confidence in the currency.

- Building **awareness and promoting the benefits** of using the rupee globally is a significant challenge.

How can India learn from China's Experience in Internationalising the Renminbi?

➤ China's Phased and Calibrated Approach:

- Before 2004, the renminbi was limited to use within China.
 - By 2009, China expanded its use for trade, investment, and currency swaps with other countries.
- In 2013, the Shanghai Free Trade Zone enabled unrestricted trading between non-resident onshore and offshore accounts.

➤ China's Achievements in Currency Internationalisation:

- Over time, China **achieved a significant degree of internationalization** of its currency, with reserve currency status increasingly enabled (e.g., by 2022, its share of international reserves had **reached ~2.88%**), as per an online article.

➤ India's Potential Strategies to Emulate China:

- India can match some of China's strategies in pursuing a gradual and calibrated approach to internationalizing its currency, while ensuring that its domestic economic and financial conditions are conducive and resilient.
- India can also leverage its existing trade and investment ties with countries in the region and beyond and seek to expand its currency swap arrangements and offshore bond market.

What are the Specific Reforms that India can Pursue to Internationalize the Rupee?

➤ Make the Rupee More Freely Convertible:

- With a goal of **full convertibility by 2060**, letting **financial investments** move freely between India and abroad.
- This would **allow foreign investors to easily buy and sell the rupee**, enhancing its liquidity and making it more attractive.

➤ Pursue a Deeper Bond Market:

- Enabling foreign investors and Indian trade partners **to have more investment options in rupees**, enabling its international use.

➤ Encourage Exporters/Importers for Transactions in Rupee:

- Optimising the **trade settlement formalities** for rupee import/export transactions would go a long way.

➤ Sign Additional **Currency Swap Agreements**:

- As with Sri Lanka, to allow India to settle trade and investment transactions in rupees, without resorting to a reserve currency such as the dollar.
- **Offer Tax Incentives:**
 - Offer Tax Incentives to **Foreign Businesses** to Utilise the Rupee in Operations in India.
- **Ensure Currency Management Stability and Improve the Exchange Rate Regime:**
 - Avoid sudden or drastic changes **such as devaluation or demonetisation** that can **impact confidence**.
 - Ensure consistent and predictable issuance/retrieval of notes and coins.
- **Pursue the Recommendations of the Tarapore Committees':**
 - Such as **reducing fiscal deficits lower than 3.5%**, reducing **gross inflation rate** to 3%-5%, and **reducing gross banking non-performing assets** to less than 5%.



National Research Foundation

*This editorial is based on **National Research Foundation: Energizing the sciences** which was published in The Indian Express on 10/07/2023. It talks about National Research Foundation that will catalyse and channel interdisciplinary research for accelerating India's ambitious development agenda.*

Tag: Governance, GS Paper-3, Government Policies & Interventions, Growth & Development

By approving the **National Research Foundation (NRF)** Bill, the Indian Union Cabinet has taken a **major step to enhance scientific research** in the country. The NRF intends to address India's persistent gap in research and development investments and foster a strong research environment within higher education institutions. The **initiative is promising**, but it also faces challenges such as **ensuring fair allocation of funds**, promoting **interdisciplinary partnerships**, and maintaining international standards.

What is the National Research Foundation (NRF)?

- **About:**
 - NRF is a proposed entity that will replace the **Science and Engineering Research Board of India (SERB)** and catalyse and channel interdisciplinary research for **accelerating India's ambitious development agenda**, through impactful knowledge creation and translation.

- **The NRF's Goals:**
 - **Promote interdisciplinary research** that will address India's most pressing development challenges.
 - **Minimize duplication** of research efforts.
 - Promote the **translation of research** into policy and practice.
- **Features of NRF:**
 - The NRF will be **presided by the Prime Minister** and consist of **10 major directorates**, focusing on different domains of **science, arts, humanities, innovation and entrepreneurship**.
 - The NRF will **have an 18-member board** with eminent Indian and international scientists, senior government functionaries and industry leaders.
 - The NRF will be **registered as a society** and have an independent secretariat.
- **Expectations from NRF:**
 - Increasing India's investment in **R&D from 0.7% of GDP to 2% of GDP** by 2030
 - Enhancing India's share of global scientific publications from about 5% to 7% by 2030
 - Creating a pool of talented researchers across disciplines and sectors
 - Developing innovative solutions for India's development challenges
 - Translating scientific knowledge into social and economic benefits

What is the Need of NRF?

- **Declining Research Investment:**
 - India's **research and development (R&D) expenditure-GDP ratio of 0.7%** is **very low** when compared to major economies and is much below the world average of 1.8%, while it was much higher in countries like the **US (2.8%), China (2.1%), Israel (4.3%) and South Africa (4.2%)**.
- **Low Research Output and Impact:**
 - India trails behind in the number of patents and publications generated.
 - According to **WIPO**, China filed **1.538 million patent applications** (with only 10% from non-resident Chinese), the **US filed 605,571 applications**, while India filed **only 45,057**, of which over **70%** were from non-resident Indians.
- **Limited Research Opportunities:**
 - Research funding is often restricted to elite institutions and researchers, leaving out those in marginalised areas.
 - For instance, DST officials said that **about 65 % of funds from SERB went to the IITs**, and only 11% to state universities.

➤ **Fragmentation of Research:**

- Research in India is largely conducted in silos by different institutions, leading to wastage and duplication of resources.

➤ **Lower Private Sector Involvement:**

- **About 56%** of R&D spending comes **from the government** and **35% from the private sector**.
 - In contrast, in technologically advanced countries, **the private sector leads R&D**, contributing as much as 88% in Israel.

➤ **Lack of Focus on Social Sciences and Humanities:**

- Most of the research **funding is skewed towards natural sciences** and engineering, while social sciences and humanities are often neglected.

How will NRF Promote Inter-disciplinary and Problem-solving Research?

➤ **Provides Platform:**

- The NRF will provide the **unifying platform for multi-disciplinary and multi-institutional collaborative research** that can address complex challenges that require solutions from different disciplines and sectors.
 - For example, **public health policy, child nutrition, air pollution and climate change** are some of the areas that **need inter- and trans- disciplinary research** that can provide evidence informed, context relevant, resource optimising, culturally compatible and equity promoting solutions.
- The NRF will **support both commissioned task force research and investigator-initiated collaborative research** in prioritised areas of India's development.
- The NRF will also create mindsets for engaging in multi-disciplinary research early in scientific careers, by inviting young researchers from different knowledge domains to collaborate on problem solving research.

➤ **Foster Collaboration:**

- The NRF will **seek to involve different stakeholders** in the scientific enterprise, such as the **private sector, state governments, state level institutions and civil society organisations**.
 - The private sector is viewed as a key partner, to infuse corporate and philanthropic funding that can augment the government's own committed contribution and also to infuse new ideas and stimulate innovation.
- State governments and state level institutions are **vital for enhancing India's capacity for conducting** locally relevant scientific research.

- **Community participation is essential** for identifying people relevant priorities for the research agenda, engaging in participatory research, monitoring and evaluating implementation and its impact as well as supporting implementation through community mobilisation.
- Only then can the scientific enterprise become a "Jan Andolon" or people's movement.

What are the Challenges Faced by NRF?

➤ **Lack of Mentorship and Career Development Support:**

- Lack of formal or informal mentorship and career development support at the institutions.
- This can make it difficult for researchers to develop their skills and advance their careers.

➤ **Inadequate Support for Research Management:**

- Inadequate support for academic leadership, lab management, data management, research misconduct, and technology transfer.
 - This can lead to problems such as poor research quality, data breaches, and ethical violations.

➤ **Variable Quality of Periodic Assessments:**

- The quality of periodic assessments is variable, often without a performance-driven system of reward or criticism.
 - This can breed complacency and discourage researchers from taking risks.

➤ **Underrepresentation of Women in Science:**

- In India while the percentage of female enrolment to total enrolment has increased from 45% in 2014-15 to around 49% in 2020-21, **however female occupying faculty positions** in science departments is low.
- This **can limit the pool of talented researchers** and create a hostile environment for women in science.

➤ **Equitable Funding Distribution:**

- One of the biggest challenges facing the NRF is ensuring that funding is distributed equitably across institutions in various geographic locations.
- The NRF will need to find ways to break pattern and ensure that funding is available to institutions in all parts of the country.

➤ **Encouraging Interdisciplinary Collaborations:**

- Another challenge facing the NRF is encouraging interdisciplinary collaborations.
- In the past, research in India has been **conducted in silos, with different disciplines working independently** of each other.
- The NRF will need to find ways to promote collaboration between different disciplines, in

order to address complex problems that require a multi-pronged approach.

- **Other Challenges:**
- **Political Interference:**
 - There is a risk that the NRF will be subject to political interference.
 - The NRF will **need to establish clear guidelines and procedures** to ensure that its decisions are based on merit, rather than political considerations.
- **Lack of Public Awareness:**
 - There is a lack of public awareness about the importance of research in India.
 - The NRF will need to raise public awareness about the benefits of research, in order to build support for its work.

What Should be the Way Forward?

- **Increasing R&D Spending:**
 - As India's R&D spending is low, the NRF should aim to increase the public and private investments in research and innovation and leverage the existing resources and infrastructure efficiently.
- **Ensuring International Competitiveness:**
 - The NRF should aim to enhance the quality and impact of India's research output and improve its ranking and visibility in the global scientific community.
 - It should also facilitate the mobility and exchange of researchers, both within India and abroad, and attract talent from across the world.



Flooding in North India

*This editorial is based on **Why North India is facing unusually heavy rains** which was published in Hindustan Times on 10/07/2023. It talks about reasons of floodings in North India and issues related to floodings.*

Tag: Geography, GS Paper–1, Important Geophysical Phenomena, GS Paper–3, Disaster Management, Environmental Pollution & Degradation

India is experiencing a **series of extreme rainfall** events that **have caused widespread destruction, landslides, flash floods and deaths** in several parts of the country.

The **rainfall distribution and intensity** have been influenced by various factors, such as the **monsoon**, the **western disturbance**, the **El Nino-Southern Oscillation (ENSO)**, the **Indian Ocean Dipole (IOD)** and **climate change**.

What are Causes of Heavy Rainfall in North India?

- **Interaction between Western Disturbance and the Monsoon Trough:**
 - The heavy rainfall in North India is **primarily due to the interaction between a western disturbance** (a low-pressure system originating from the Mediterranean region) and **the monsoon trough** (a low-pressure zone along the monsoon wind belt).
 - This interaction **leads to intense rainfall** over regions like **Himachal Pradesh, Uttarakhand, Punjab, and Haryana**.
- **Excess Rainfall and Deficient Distribution:**
 - After experiencing a **10% deficiency in rainfall until the end of June**, North India has **witnessed a surge in monsoon activity**, resulting in a **2% excess rainfall** over the country.
 - Specifically, **there is a 59% excess rainfall over northwest India**, while **peninsular India and east/northeast India** have faced **rainfall deficiencies of 23% and 17%, respectively**.
- **Synoptic Conditions and Climate Change:**
 - The recent **heavy rainfall and flash floods in Himachal Pradesh** have been attributed to synoptic conditions similar to the 2013 Uttarakhand floods.
 - These conditions **involve an active monsoon with strong low-level easterly winds bringing ample moisture**, coupled with **upper-level divergence** caused by an eastward-moving trough.
 - Climate change also plays a role, as **it leads to increased heavy rainfall** in hilly areas and surroundings **due to extra moisture and orographic lifting**.
 - In hilly areas like the Himalayan foothills and the Western Ghats, increased extreme rains occur due to orographic lifting.
 - The **hills obstruct the moisture flow**, causing it to accumulate and result in heavy downpours.
- **Flash Floods and Cloudbursts:**
 - Flash floods caused by cloudbursts and extreme rainfall events are challenging to predict.
 - Monitoring and forecasting such events require radar systems and close observation of areas prone to flash floods.
 - Land use changes and development activities may aggravate the severity of flash floods.

What are the Factors Affecting the Rainfall in India?

- **Monsoon Affecting Rainfall:**

- The monsoon is a **seasonal reversal of winds that brings a humid climate** and torrential rainfall to India.
 - The monsoon **typically lasts from June to September**, with peak rainfall occurring in July and August.
 - The Indian Monsoon is **caused by a difference in air pressure between the Bay of Bengal and the Arabian Sea**.
 - The rainfall distribution in India is **impacted by the Thar desert and the Himalayas**, as well as **temperature and pressure changes** over the **Indian Ocean, the Arabian Sea, the Bay of Bengal** and the southern part of the **Pacific Ocean**.
- **Western Disturbance Affecting Rainfall:**
 - The western disturbance is a **low-pressure system** that **originates over the Mediterranean Sea** or West Asia and **moves eastward towards India**.
 - It usually affects northwestern India during winter (December to February) and brings snowfall to the Himalayan regions and rainfall to the plains.
 - However, **sometimes it can also interact with the monsoon trough during summer** (June to September) and bring heavy rainfall to northern India.
 - The western disturbance **can enhance or suppress the monsoon activity** depending on its location, intensity and timing.
 - When it is **located over northwestern India or Pakistan**, it can **enhance the monsoon** activity by providing moisture and instability to the atmosphere.
 - When it is **located over central or eastern India**, it can **suppress the monsoon activity** by creating a high-pressure system that blocks the monsoon winds.
- **ENSO Affecting Rainfall:**
 - ENSO is a **periodic fluctuation of sea surface temperature (SST)** and atmospheric pressure **over the equatorial Pacific Ocean**.
 - ENSO can affect the rainfall in India **by altering the atmospheric circulation** patterns over the Indian Ocean, the Arabian Sea, the Bay of Bengal and the southern part of the Pacific Ocean.
 - El Nino **tends to weaken or delay the onset of the monsoon** by creating a high-pressure system over India that blocks the moisture-laden winds from reaching India.
 - La Nina **tends to strengthen or advance the onset of the monsoon** by creating a low-pressure

system over India that attracts the moisture-laden winds from reaching India.

➤ **IOD Affecting Rainfall:**

- IOD can **affect the rainfall in India by modulating the moisture transport and convection over the Indian Ocean**, the Arabian Sea and the Bay of Bengal.
- IOD can also affect different regions of India differently depending on its strength, duration and timing.
 - Positive IOD can **increase rainfall over northwestern India** in summer and central India in autumn.
 - Negative IOD can **decrease rainfall over northwestern India** in summer and increase rainfall over peninsular India in autumn.

➤ **Climate Change:**

- Climate change can affect the rainfall in India **by altering the temperature, humidity, pressure, wind and cloud patterns** over various scales of time and space.
- Climate change can affect the monsoon by changing its onset, duration, intensity and spatial distribution. Some studies suggest that -
 - Climate change **can delay the onset of the monsoon by increasing the land-sea temperature contrast**, which inhibits the northward movement of the monsoon winds.
 - **Climate change can advance the onset of the monsoon by increasing the SSTs** over the Indian Ocean, which enhances the moisture supply to the atmosphere.
 - Climate change can increase the frequency and intensity of El Nino events, which can reduce Indian summer monsoon rainfall (ISMR) and increase droughts.
 - Climate change can increase the frequency and intensity of La Nina events, which can increase ISMR and floods.
- Climate change can also **affect the orographic rainfall in India by changing the snow cover, glacier melt and soil moisture** over the Himalayas and the Western Ghats.

What are the Implications of Heavy Rainfall in India?

➤ **Agriculture:**

- Heavy rainfall and floods **can damage crops, soil fertility, irrigation infrastructure and livestock**.
- They can also affect crop sowing, harvesting, storage and distribution.

- This can lead to **food insecurity, malnutrition, poverty and distress migration** among farmers.
- **Water resources:**
 - Heavy rainfall and floods can **replenish groundwater, surface water and soil moisture levels**.
 - They can also improve water quality by flushing out pollutants.
 - However, they can also cause **waterlogging, erosion, sedimentation, landslides, dam breaches and contamination** of water sources.
 - This can lead to **water scarcity, water conflicts, waterborne diseases and displacement** of people.
- **Energy:**
 - Heavy rainfall and floods can **increase hydropower generation by increasing river flows** and reservoir levels.
 - They can also reduce thermal power generation by affecting coal supply and cooling systems.
 - However, they can also **damage power plants, transmission lines, substations and distribution networks**.
 - This can lead to **power outages, blackouts, losses and accidents**.
- **Transportation:**
 - Heavy rainfall and floods can **improve navigation by increasing water levels** in rivers and lakes.
 - However, they can also **disrupt road, rail, air and water transport** by causing landslides, floods, traffic jams, delays, cancellations, accidents and fatalities.
- **Health:**
 - Heavy rainfall and floods can reduce air pollution by washing away dust particles and aerosols.
 - They can also reduce heat stress by lowering temperatures and humidity.
 - However, they can also increase vector-borne diseases.

What are the Government Initiatives to Tackle Flooding?

- **National Flood Risk Mitigation Project (NFRMP):**
 - It aims at ensuring that arrangements are in place to mobilise the resources and capability for **relief, rehabilitation, reconstruction and recovery from disasters** besides creating awareness among vulnerable communities.
- **National Disaster Management Plan (NDMP):**
 - It provides a **framework and direction for all phases of disaster management cycle**, such as prevention, mitigation, preparedness, response, recovery and reconstruction.

- **National Disaster Management Authority (NDMA):**
 - It is the apex body for disaster management in India, under the chairmanship of the Prime Minister.
 - It lays down policies, plans and guidelines for disaster management and coordinates their implementation.
- **India Meteorological Department (IMD):**
 - It provides rainfall or cyclonic event forecast which is used by all the agencies for preparedness to deal with the floods.
 - It also issues warnings and advisories for heavy rainfall, flash floods, landslides and cloudbursts.
- **Central Water Commission (CWC):**
 - It monitors the water levels of major rivers and reservoirs and issues flood forecasts and inflow forecasts.
 - It also conducts flood damage assessment and flood plain zoning. It also provides technical guidance and assistance to state governments for flood management.
- **National Remote Sensing Centre (NRSC):**
 - It provides satellite-based information for flood monitoring, mapping, damage assessment and relief planning.
 - It also develops flood inundation models and flood risk maps.

What Should be the Way Forward?

- **Strengthening the Institutional and Legal Framework:**
 - Strengthening the institutional and legal framework for flood and landslide management **at the national, state and local levels**.
 - This includes **establishing dedicated agencies or departments for flood and landslide management, enhancing coordination and collaboration among various stakeholders**, enforcing regulations and standards for land use, construction, mining, etc., and ensuring accountability and transparency in disaster management activities.
- **Enhancing the Scientific and Technical Capabilities:**
 - This includes **conducting hazard, vulnerability and risk assessment, mapping and zoning of flood and landslide prone areas**, developing early warning systems and forecasting models, implementing structural and non-structural mitigation measures, promoting research and innovation, and building human resources and capacities.
- **Improving the Disaster Preparedness:**
 - **Short Term Measures:**
 - Establishing emergency control rooms and communication networks

- Conducting drills and mock exercises
- Deploying rapid response teams and relief materials
- Ensuring timely evacuation and rescue operations
- **Long Term Measures:**
 - Developing disaster management plans at various levels
 - Allocating funds and resources
 - Mobilising community participation and awareness



India and Europe: A New Era of Strategic Partnership

*This editorial is based on **What India can gain from Europe** which was published in **The Indian Express** on 12/07/2023. It talks about India-Europe relationships.*

Tag: International Relations, GS Paper - 2, Important International Institutions, Government Policies & Interventions, International Treaties & Agreements, Effect of Policies & Politics of Countries on India's Interests

The **25th-anniversary celebration of Indo-French** strategic partnership is a good moment to begin India's **re-engagement with European security**. Defence cooperation between India and France could contribute to Eurasian security this century. The **Prime Minister's visit to France** is expected to produce a bounty of new agreements, especially in defence and space, and raise the bilateral strategic partnership to a higher level. The visit is not just about what advanced technologies and arms France can give. It also highlights a theme not often discussed what India can do for France and Europe.

Why is India's Contribution to European Security Important?

- **Historical Contribution:**
 - India has helped secure peace in Europe **during the two world wars**, when millions of Indian soldiers fought and died for the allied cause.
- **Economic Interest:**
 - India has a stake in the **stability and prosperity of Europe**, which is a major trade and investment partner, a **source of technology and innovation**, and a **fellow democracy**.
- **Security Concern:**
 - India has an interest in the resolution of the **ongoing war in Ukraine**, which has **implications for Asian security and the global order**.

➤ Diplomatic Role:

- India has an opportunity to play a constructive role in **bridging the gaps between Russia and the West**, as well as between China and Europe, on various regional and global issues.

➤ Strategic Partnership:

- India has a potential to collaborate with France and other European countries on modernising its **defence industrial base, enhancing its maritime surveillance capabilities**, and promoting renewable energy and climate action.

What is the Significance of Europe for India?

➤ Employment:

- The European Union (EU) works closely with India **to promote peace, create jobs, boost economic growth** and enhance sustainable development across the country.

➤ Financial Assistance:

- As India graduated from a **low to medium income country** (OECD 2014), the **EU-India cooperation** also evolved from a traditional financial assistance type towards a partnership with a focus on common priorities.

➤ Trade:

- The **EU is India's 2nd-largest trading partner** (after the US) and **India's 2nd-largest export market**. India is the EU's 10th largest trading partner, accounting for **2% of EU total trade in goods**.
- Trade in services between the EU and India **reached 40 billion Euro in 2021**.

➤ Exports:

- India's merchandise **exports to EU member countries stood at about USD 65 billion in 2021-22**, while imports aggregated at USD 51.4 billion.
- In 2022-23, the exports aggregated at **USD 67 billion**, while imports stood at USD 54.4 billion in 2021-22.

➤ Other Bilateral Mechanism:

- At the 2017 **EU-India Summit**, leaders reiterated their **intention to strengthen cooperation on the implementation of the 2030 Agenda for Sustainable Development** and agreed to explore the continuation of the EU-India Development Dialogue.

What are the Challenges for India's Engagement with European Security?

➤ Historical Dependence:

- India's historical **dependence on Russia** for its defence needs and its **reluctance to criticise Russia's actions in Crimea and Ukraine**.

- **Institutional Gap:**
 - India's lack of institutional linkages with European security organisations such as **North Atlantic Treaty Organisation** (NATO), **Permanent Structured Cooperation** (PESCO), and Club de Berne.
- **Perceptual Gap:**
 - India's perception of Europe as a **secondary player in Asian security affairs** compared to the US, Japan, Australia, and **ASEAN**.
- **Resource Constraint:**
 - India's **limited resources and capabilities to project its influence and presence in Europe** amid competing priorities in its neighbourhood and beyond.

What are the Opportunities for India's Engagement with Europe?

- **Strategic Convergence:**
 - India's growing strategic convergence with France on various issues **such as counter-terrorism, maritime security, space cooperation, defence technology, and multilateralism**.
- **Cultural Collaboration:**
 - India's participation in the **Indo-French Year of Culture 2023-2024**, which will showcase the **cultural diversity and creativity** of both countries and foster people-to-people ties.
- **Regional Vision:**
 - India's alignment with the EU's vision of a **free, open, inclusive, and rules-based Indo-Pacific region**, which was articulated in a strategy document released in 2021.
- **Flagship Projects:**
 - India's involvement in some of the flagship projects with France such as the **Scorpene submarines**, the **Rafale jets**, and the **ISRO-CNES satellite constellation**.
- **Green Cooperation:**
 - India's support for the **European Green Deal**, which aims to make the EU carbon-neutral by 2050, and its **collaboration with France** on the **International Solar Alliance** and the **One Planet Summit**.

What are the Recent Initiatives taken by India and France?

- **Logistics Agreement:**
 - The signing of a **reciprocal logistics support agreement** between their armed forces in 2018, which allows them to access each other's military bases for refuelling and replenishment.
- **Joint Exercises:**

- The holding of regular **joint exercises** between their navies (**Varuna**), armies (**Shakti**), air forces (**Garuda**), and special forces (Shakti).
- **Maritime Dialogue:**
 - The launch of a bilateral maritime security dialogue in January 2019, which covers issues such as **freedom of navigation, maritime domain awareness, anti-piracy operations, and capacity building**.
- **Cybersecurity Working Group:**
 - The establishment of a **joint working group on cybersecurity** in 2019, which **aims to enhance cooperation on cyber resilience, digital governance, data protection, and cybercrime prevention**.
- **Defence Dialogue:**
 - The creation of an annual defence dialogue at the ministerial level in October 2019, which **provides strategic guidance to their defence cooperation**.

What Should be the Way Forward?

- **Potential Areas of Cooperation with Germany:**
 - Germany recognizes India as a crucial partner in resolving global challenges such as **climate change, food security, energy, and international peace and security**.
 - Given the need for India and Germany to disentangle from their connections with Russia, the leaders of both nations **can work together to find solutions and navigate** this complex situation.
 - India should prioritize making itself an appealing destination for German investment, especially as Germany seeks to reduce its exposure to the Russian and Chinese markets.
- **Potential Areas of Cooperation with France:**
 - France plays a critical role in India's ambitious plans to expand domestic weapon production with increased private and foreign investment.
 - France is an ideal partner in the Indo-Pacific, particularly in light of the Joint Strategic Vision for cooperation in the **Indian Ocean Region** established by both countries.
 - Discussions should encompass emerging areas of collaboration, including connectivity, climate change, cyber-security, and science and technology.
- **Engaging the Nordic Countries:**
 - Despite their modest population size, the **Nordic Five Denmark, Finland, Iceland, Norway, and Sweden** boast a combined GDP of \$1.8 trillion, surpassing that of Russia.
 - In recent years, India has recognized the **significant contributions each European nation** can make to its development.

- Luxembourg **offers substantial financial clout**, Norway possesses impressive maritime technologies, Estonia excels in **cyber power**, Czech Republic demonstrates **expertise in optoelectronics**, Portugal serves as a **gateway to the Lusophone world**, and Slovenia provides commercial access to Europe through its **Adriatic Sea port at Koper**.
- India should **focus on building a unique green strategic partnership with Denmark** and further engage with the Nordic countries to maximize their potential for cooperation.



Finance Commissions

*This editorial is based on **Why normative recommendations of finance commissions remain on paper** which was published in **The Indian Express** on 13/07/2023. It talks about finance commissions and associated issues.*

Tag: Indian Polity, GS Paper-2, Centre-State Relations, Indian Constitution, Co-operative Federalism, Constitutional Bodies

Finance Commissions (FCs) play a crucial role in shaping the **fiscal federalism** and **development** trajectory of India. They make **recommendations on how to distribute the financial resources** between the Union and the states, as well as among the states, for a period of five years. FCs also **provide guidance and advice** on various issues related to public finance, governance and development, such as **fiscal consolidation, debt management, local bodies, disaster relief, health, education, justice delivery, statistical system**, etc. FCs have made significant contributions to enhancing the fiscal autonomy, equity and efficiency of the Union and state governments, as well as promoting cooperative and competitive federalism in the country. However, they also face several challenges and limitations in fulfilling their mandate, especially in the context of a dynamic and complex political economy environment.

What are Finance Commissions?

- FCs are constitutional bodies set up **under Article 280** of the Constitution **every five years** to make recommendations on the distribution of financial resources between the Union and the states.
- Recommendations cover three main aspects:
 - **Vertical Devolution:**
 - The share of states in the divisible pool of central taxes.
 - **Horizontal Distribution:**

- The allocation of resources among states based on a formula that reflects their fiscal needs, capacities and performance.
- **Grants-in-aid:**
 - The additional transfers to specific states or sectors that are in need of assistance or reform.
 - Among the grants made by the 13th FC, two important ones were justice delivery and the statistical system.
 - ◆ The Department of Justice **identified several initiatives** that needed support, including increasing the **number of courts working hours**, enhancing support to **Lok Adalat**, providing additional funding to **State Legal Services Authorities**, promoting the **Alternate Dispute Resolution** mechanism, enhancing the capacity of judicial officers and public prosecutors through training programmes, and supporting the creation of a judicial academy in every state to facilitate such training.
 - Similarly, for equitable horizontal distribution, the measurement of cost disabilities is important, and the cost of services varies across states due to a large number of factors.

What are Some of FCs' Successful Recommendations?

- FCs have made several recommendations over the years that have had significant impact on various aspects of public finance, governance and development in India. Some examples are:
 - Introducing tax devolution as a major component of vertical transfers, **increasing the share of states from 10% to 42%** over time.
 - Introducing performance-based incentives for states to encourage **fiscal discipline, population control, forest conservation, power sector reforms**, etc.
 - **Introducing disaster relief funds for states and local bodies** for enhancing their preparedness and response capacity for natural calamities.
 - **Introducing grants for local bodies** strengthening their fiscal autonomy and accountability for delivering basic services.
 - Introducing **grants for specific sectors** such as health, education, justice delivery, statistical system, etc. addressing critical gaps and needs in these areas.

How are the Recommendations of FCs Implemented and Monitored?

- The recommendations of FCs are **advisory in nature and not binding** on the Union government. However,

they are **usually accepted with minor modifications** or deviations.

- The Union government **notifies the acceptance** of the recommendations **through a Presidential Order**, which also specifies the period for which they are valid (usually five years).
- The Union government also **tables an explanatory memorandum in Parliament**, stating the action taken on the recommendations and the reasons for any deviation.
- The implementation and monitoring of the recommendations are **done by various ministries and departments** at the Union and state levels, **depending on the subject matter and the conditions** attached to the transfers.

What are the Challenges of FCs?

- **Data Gaps and Quality Issues:**
 - FCs rely on official data sources to assess the fiscal situation and performance of the Union and states, but these **data are often incomplete, inconsistent or outdated**.
 - For instance, there is no reliable data on inter-state trade flows, unit costs of public services, or outcomes of various schemes and programmes.
- **Political Economy Factors:**
 - FCs have to balance the competing interests and demands of various stakeholders, such as **the Union government, state governments, local bodies, civil society groups**, etc.
 - They also have to take into account the changing political and economic scenarios in the country and the world.
- **Implementation Challenges:**
 - FCs have to ensure that their recommendations are feasible, acceptable and effective in achieving the desired objectives.
 - However, they have **no direct control over how their recommendations are implemented** or monitored by the Union and state governments.
 - They also have to deal with issues such as delays, deviations, non-compliance or misuse of funds by the recipients.
- **Evaluation Difficulties:**
 - FCs have to assess the impact and outcomes of their recommendations on various indicators of **fiscal health, governance quality and development performance**.
 - However, they face difficulties in attributing causality, isolating effects, measuring outcomes and attributing value to their interventions.

What are Some New Issues for the 16th FC?

- **The Co-existence of the GST Council:**
 - The **GST Council** is a permanent constitutional body that decides on tax rates and other matters related to GST.
 - Its decisions **can affect the revenue projections and calculations** made by FCs for sharing fiscal resources.
 - There is a need for a mechanism for FCs to revisit their numbers due to GST Council's decisions or vice versa.
- **The Funding of Defence and Internal Security:**
 - As an afterthought, **the Fifteenth FC** was given an additional term of reference to determine whether a separate mechanism for funding defence and internal security should be set up.
 - It recommended **creating a non-lapsable fund for this purpose, which was accepted by the government in principle**, but its implementation still has to be worked out.
- **The Impact of Covid-19 Pandemic:**
 - The **Covid-19 pandemic** has caused unprecedented disruption and uncertainty in the economy and public finances.
 - It has also highlighted the need for **strengthening the health system** and social protection measures.
 - The **Sixteenth FC will have to take into account the impact** and implications of the pandemic on the fiscal situation and performance of Centre and States, as well as their expenditure needs and priorities.

What Should be the Way Forward?

- **Enhancing Fiscal Autonomy and Equity:**
 - FCs should aim to provide adequate and predictable resources to the Union and state governments, based on their respective constitutional responsibilities and expenditure needs.
 - They should also **ensure a fair and transparent distribution of resources among** states, taking into account their fiscal capacities, performance and special circumstances.
- **Promoting Fiscal Efficiency and Accountability:**
 - FCs should encourage the Union and state governments to adopt sound fiscal policies and practices, **such as fiscal consolidation, debt sustainability, revenue mobilisation, expenditure rationalisation**, etc.
 - They should also incentivise them to improve the quality and effectiveness of public spending, especially in priority sectors such as health, education, infrastructure, etc.

- **Addressing Emerging Issues and Challenges:**
 - FCs should be responsive and proactive to the changing economic and social scenarios in the country and the world.
 - They should address the issues and challenges posed by the **GST implementation, Covid-19 pandemic, climate change, digital transformation**, etc.
 - They should also explore new avenues and mechanisms for enhancing cooperative and competitive federalism in the country.
- **Strengthening Institutional Capacity and Credibility:**
 - FCs should improve their analytical and advisory capabilities, by using **reliable and updated data sources, applying robust** and innovative methodologies, engaging with experts and stakeholders, etc.
 - They should also **enhance their communication and outreach strategies**, by disseminating their reports and recommendations widely, soliciting feedback and suggestions, creating awareness and consensus among various actors, etc.

■■■

Demand for Critical Minerals Across the Globe

*This editorial is based on **Critical mineral supplies vital to clean energy shift** which was published in The Hindu BusinessLine on 13/07/2023. It talks about the increasing demand for critical minerals across the globe and the associated challenges.*

Tag: Economy, GS Paper-1, Mineral & Energy Resources, GS Paper-2, India and its Neighbourhood, Effect of Policies & Politics of Countries on India's Interests & Interventions

As the world rapidly **embraces clean energy technologies and transitions** towards a sustainable future, the demand for **critical minerals** has soared to unprecedented levels. These **essential minerals**, including **lithium, cobalt, nickel, and copper**, play a pivotal role in powering **electric vehicles, solar panels, wind turbines, and other clean energy devices**. However, the surge in demand has outpaced the supply of these critical minerals, giving rise to significant challenges.

China holds a dominant position in the supply of certain crucial materials for the **green transition**, which is seen as a potential supply risk. An example of this is the **recent restrictions imposed by China** on the **export of important metals like Gallium and Germanium**. This highlights the concern about relying heavily on a single country for the supply of these essential materials.

What are Critical Minerals?

- **Minerals:**
 - **Minerals** are natural substances that are formed by geological processes. They have a **definite chemical composition and physical properties**.
 - They are classified into **metallic and non-metallic minerals** based on their characteristics and uses.
 - Metallic minerals are **those that contain metals or metal compounds**, such as iron, copper, gold, silver, etc.
 - Non-metallic minerals are **those that do not contain metals**, such as limestone, coal, mica, gypsum, etc.
- **Critical Minerals:**
 - Critical minerals are those **minerals that are essential for economic development and national security**. The **lack of availability** of these minerals or concentration of extraction or processing in a few geographical locations **may lead to supply chain vulnerabilities and even disruption of supplies**.

➤ Critical Minerals for India:

- Expert Committee under Ministry of Mines has **identified a set of 30 critical minerals for India**.
- These are Antimony, Beryllium, Bismuth, Cobalt, Copper, Gallium, Germanium, Graphite, Hafnium, Indium, Lithium, Molybdenum, Niobium, Nickel, PGE, Phosphorous, Potash, REE, Rhenium, Silicon, Strontium, Tantalum, Tellurium, Tin, Titanium, Tungsten, Vanadium, Zirconium, Selenium and Cadmium.
- India **has set up KABIL or the Khanij Bidesh India Limited**, a joint venture of three public sector companies, to ensure a consistent supply of critical and strategic minerals to the Indian domestic market.
- It ensures the mineral security of the nation; it also helps in realising the overall objective of import substitution.

What is the Current Scenario for Critical Minerals Around the Globe?

- **Rapid Surge in Demand and Market Growth for Energy Transition Minerals (Critical Minerals):**
 - From 2017 to 2022, the demand for lithium tripled, cobalt increased by 70%, and nickel rose by 40%, primarily driven by the **energy sector**.
 - According to the **International Energy Agency (IEA)**, the market for energy transition minerals reached **\$320 billion in 2022** and is expected to continue growing rapidly.

➤ Global Efforts through Policy Measures:

- The availability of critical mineral supplies will greatly impact the affordability and speed of energy transitions. To **mitigate uncertain global supply chains**, countries are implementing new policies to diversify their mineral supplies.
 - The **United States (US)**, **Canada**, the **European Union (EU)**, and **Australia** have enacted regulatory legislation, while resource-rich nations like **Indonesia**, **Namibia**, and **Zimbabwe** have imposed restrictions on the export of unprocessed mineral ores.

➤ Industry's Role through Vertical Integration:

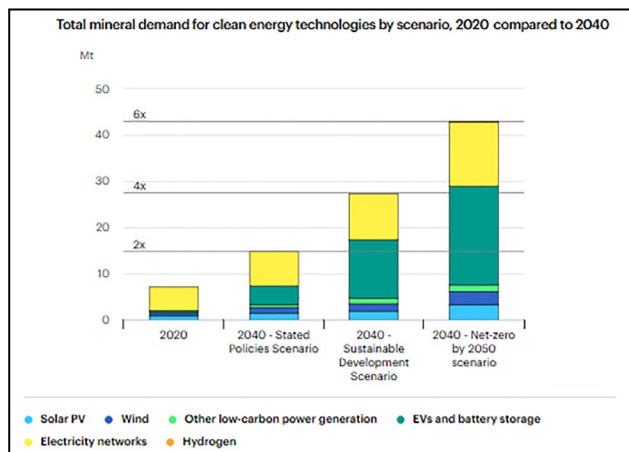
- To secure mineral supplies, industries such as automakers, battery cell makers, and equipment manufacturers are becoming more actively involved in the critical minerals **value chain**.
 - This includes engaging in activities like **mining and refining**, along with establishing long-term agreements for purchasing minerals.

➤ Geopolitical Tensions and Resource Nationalism:

- It is important to address these challenges because **global relations between nations have become more polarised**, especially due to events like the **US-China trade war** and the **Russia-Ukraine war**. These conflicts have led to sanctions and disruptions in established trade patterns.
- Additionally, there is an increasing trend of **resource nationalism**, where countries prioritise their own resources and impose restrictions on exports. These factors contribute to uncertainties in **global trade flows**.

➤ Supply-Demand Dynamics:

- As the prices of critical industrial metals, such as copper, are expected to increase in the coming years due to growing **demand surpassing supply**. This rise in material prices will likely disrupt the production costs of devices like solar panels and electric vehicles.



What are the Challenges

Related to Critical Minerals in India?

- India is **currently confronted with both global and domestic challenges in ensuring reliable supply chains for critical minerals**. Internationally, there are few major risks to consider:
 - **Covid-19 Impact:** China, which holds a dominant position in critical mineral supply chains, continues to struggle with **Covid-19**. Consequently, there is a significant risk of a slowdown in the extraction, processing, and exports of critical minerals.
 - **Russia-Ukraine War:** The conflict has implications for critical mineral supply chains. **Russia is a major producer of nickel, palladium, titanium sponge metal, and the rare earth element scandium.**
 - Ukraine is a **significant producer of titanium** and has reserves of lithium, cobalt, graphite, and rare earth elements.
 - The ongoing war between the two countries raises concerns about the stability and availability of these critical minerals in the global supply chains.
 - **Impact of China-Russia Partnership and Disparity in International Initiatives:** The evolving balance of power between countries and continents poses a risk to critical mineral supply chains, **primarily due to the strategic partnership between China and Russia.**
 - This alliance could have implications for the stability and availability of critical minerals. In response, developed countries have formed collaborative strategies such as the **Minerals Security Partnership (MSP)** and the **G7's Sustainable Critical Minerals Alliance**.
- However, developing countries have not been actively involved in these initiatives, potentially missing out on the benefits and protection offered by these partnerships.
- However, India does not have many of these mineral reserves, or its requirements may be higher than the availability, necessitating reliance on foreign partners to meet domestic needs.

What are the Recommended Strategies to Mitigate Challenges Regarding Critical Minerals?

- **Keeping up with Rapid Demand Growth:** To ensure that future supplies of critical minerals can meet the rapidly growing demand driven by climate-driven scenarios. It is **crucial to assess whether the global supply of these minerals can keep pace with this surge in demand.**

- **Diversifying Sources of Supply:** Currently, the reliance on a limited number of countries for these minerals poses risks to the supply chain. By **diversifying the sources, countries and industries can reduce vulnerability** to disruptions in supply caused by geopolitical factors, trade restrictions, or other uncertainties.
- **Ensuring Clean and Responsible Sourcing:** Ensuring that the volumes of critical minerals required for energy transitions **can be supplied from clean and responsible sources**. Mining and refining processes can have environmental and social impacts, including issues such as pollution, habitat destruction, and human rights concerns.
 - It is **important to promote sustainable and responsible practices throughout the critical minerals value chain** to minimise these impacts and ensure a sustainable energy transition.

Way Forward

- **Ensuring Resource Availability:** Addressing the resource aspect is crucial. It is necessary to assess the availability and accessibility of critical materials required for clean energy technologies. This **includes evaluating the domestic reserves of critical minerals and exploring opportunities for their sustainable extraction** or sourcing from diverse international markets.
 - Additionally, **there should be strategies to ensure a steady supply of these materials, mitigating risks** associated with potential disruptions in global supply chains.
- **Financial Considerations:** The transition to clean energy often necessitates significant investments in **infrastructure development, research and development, and policy support**. There is a need for **financing mechanisms, incentives, and funding models that can attract both public and private investments**.
 - Identifying **avenues for international collaborations and exploring innovative financing options** will also be vital in mobilising the required capital for a successful energy transition.
- **Technology as the Key Driver:** Technology plays a critical role in achieving our energy goals. It is **required for the world to focus on fostering domestic technological capabilities**, promoting research and development, and fostering innovation in clean energy technologies.
 - There is a need for technology transfer, collaborations with academia and industry, and the **creation of an ecosystem that supports the development, adoption, and scaling up of innovative clean energy solutions**.

Conclusion

India needs to draw important lessons from the global scenario. While aiming for a rapid decarbonisation and energy transition, India may face challenges due to the limited availability of key minerals and metals required for a swift transition. The success of India's efforts in achieving its goals will be dependent on the uncertainties and fluctuations of the world market for these critical resources.



Constitutional Morality and Personal Relation

*This editorial is based on **An unacceptable verdict in the constitutional sense** which was published in The Indian Express on 14/07/2023. It talks about flaws in Allahabad high court judgment on inter-faith live-in relationship.*

Tag: Indian Polity, GS Paper - 2, Indian Constitution, Constitutional Amendments, Important Judgments

Constitutional morality is a concept that refers to the adherence to the core principles of constitutional democracy, such as individual **autonomy, liberty, equality, dignity, privacy, and non-discrimination**, in matters of personal choices and relations.

The Allahabad High Court judgment in **Kiran Rawat vs State of UP** is being seen as violating constitutional morality regarding denial of the protection to an inter-faith couple in a live-in relationship from police harassment, and by implying that their relationship was immoral, illegal, and against personal laws.

Constitutional morality **plays a vital role in shaping the functioning of a democratic society governed by the principles of the constitution**. While it is subject to interpretation and has its challenges, it serves as a guiding framework for upholding **fundamental rights**, ensuring justice, and maintaining a balance of power.

What is the Significance of Constitutional Morality?

- **Protection of Individual Autonomy and Personal Liberty:**
 - Recognizes intimate choices and relations as inherent and inalienable aspects of human personality.
 - **Limits the state's power to regulate or punish** based on public or social morality.
- **Respect for Constitutional Values:**
 - Upholds secularism, pluralism, and diversity.
 - Prevents imposition of **religious or cultural norms** on individuals who do not voluntarily accept them.

- **Promotion of Pluralism and Diversity:**
 - Fosters a culture of **tolerance, respect, and dialogue among different groups and communities.**
 - Enables individuals to freely express their identities and preferences without fear or coercion.

What are the Landmark

Judgments Upholding Constitutional Morality?

- **Lata Singh vs State of UP (2006):**
 - Directed protection for inter-caste and inter-religious couples from harassment and violence.
- **S. Khushboo vs Kanniammal & Anr. (2010):**
 - Declared sexual relations between **consenting adults outside marriage** as legal and within the right to privacy.
- **Naz Foundation vs Government of NCT of Delhi (2009):**
 - Decriminalized consensual homosexual acts between adults, declaring **Section 377** of the Indian Penal Code as a violation of rights.
- **Joseph Shine vs Union of India (2018):**
 - Decriminalized adultery and **declared it a violation of the rights to equality, dignity, privacy, and autonomy.**
- **Navtej Singh Johar vs Union of India (2018):**
 - Affirmed the **rights of LGBTQ+** individuals to express their sexual orientation and identity with dignity.
- **Shafin Jahan vs Asokan K.M. (2018):**
 - Upheld the right to marry a person of one's choice regardless of religion or caste, nullifying the annulment of a Hindu-Muslim marriage.
- **Shakti Vahini vs Union of India (2018):**
 - Condemned honour killings and violence against inter-caste and inter-religious couples, issuing guidelines for prevention and protection.

What are the Challenges of Constitutional Morality?

- **Lack of Clear Definition:**
 - Constitutional morality lacks a **clear definition, leading to varied interpretations** based on individual perceptions.
- **Promotion of Judicial Supremacy:**
 - Constitutional morality **promotes judicial supremacy, which can result in the Judiciary intervening** in the functioning of the legislature.
 - This intervention violates the principle of the separation of powers.

- **Conflicts with Popular Morality and Religious Beliefs:**
 - Constitutional morality may sometimes conflict with popular morality or religious beliefs.
 - Conflicts of this nature can **lead to social unrest and resistance**
 - Examples of such conflicts include the Supreme Court's verdicts on decriminalizing homosexuality and allowing women's entry into the **Sabarimala temple**, which were met with protests by certain sections of society.
- **Influence of Political Considerations and Personal Biases:**
 - Constitutional morality **may be influenced by political considerations or personal biases.**
 - These influences can undermine the objectivity and legitimacy of constitutional morality.

What Should be the Way Forward for Constitutional Morality?

- **Clear Definition and Understanding:**
 - Efforts should be made to **establish a clear and comprehensive definition of constitutional morality**, providing a solid foundation for interpretation and application.
- **Public Awareness and Education:**
 - Promoting **public awareness and education** about constitutional morality is crucial.
 - This includes **enhancing civic education, conducting public discussions, and engaging with various stakeholders** to foster a deeper understanding of its principles.
- **Judicial Restraint and Respect for Separation of Powers:**
 - To address concerns about **judicial supremacy, there should be a focus on judicial restraint** and a respect for the separation of powers.
 - The judiciary should exercise caution in intervening in legislative matters and maintain a balance between upholding constitutional values and respecting the roles of other branches of government.
- **Evolving and Adaptive Approach:**
 - Constitutional morality should be **flexible and adaptive to evolving societal norms, values, and challenges.**
 - Courts and institutions responsible for interpreting the constitution should embrace a dynamic approach that considers contemporary issues and developments.

Floods Havoc in India

*This editorial is based on **Monsoon havoc in India** which was published in The Indian Express on 17/07/2023. It talks about flood related issues in India*

Tag: Geography, GS Paper-1, Important Geophysical Phenomena, GS Paper-3, Disaster Management, Environmental Pollution & Degradation

India is a country that faces the **twin challenges of floods and droughts every year**. The **monsoon** season, which brings about **75% of the annual rainfall**, is also a time of great variability and uncertainty. Year after year, as the monsoon season progresses, floods wreak havoc, leaving behind a trail of destruction and despair. As the 2023 monsoon progresses, floods are beginning to repeat the pattern of damage and destruction. The magnitude of this issue becomes apparent when we consider the staggering statistics: an average of **at least one major flood event each year**, resulting in significant loss of life and extensive damage to land, crops, houses, and public utilities.

What are the Causes of Floods in India?

➤ Heavy Rainfall:

- This is the **most common cause of floods** in India. The monsoon season, which lasts from **June to September, brings intense and erratic rainfall to different parts of the country**.
- Sometimes, the rainfall exceeds the capacity of the soil to absorb or the drainage system to carry away the excess water, resulting in floods.
- For example, in July 2023, Delhi received '**excess**' and '**large excess**' rain on five out of eight days, from July 3-10. On July 9, it **recorded 221.4 mm of rain**, more than the 209.7 mm that is the average for all of July.
 - This contributed to the flooding of large parts of the city.

➤ Snowmelt:

- The snow and glaciers in the mountains melt due to rising temperatures and flow down into the rivers and streams.
- This can **increase the water level and cause floods downstream**.
- For example, in February 2021, a **massive flash flood occurred** in Uttarakhand due to a glacial burst that triggered an avalanche of snow, ice, and debris.

➤ Cyclones and Storms:

- These are weather events that **can bring strong winds and heavy rains** along the coastal areas of India.

- They can cause storm surges, which are sudden rises in sea level **due to low atmospheric pressure and high winds**.
- Storm surges can inundate low-lying areas and cause coastal flooding.
- For example, in May 2020, **Cyclone Amphan** hit **West Bengal and Odisha** with wind speeds of up to 185 km/h and storm surges of up to 5 meters.

➤ River Overflow:

- This is a cause of floods that occurs when the water level in a **river exceeds its carrying capacity** due to excessive inflow from upstream or reduced outflow downstream.
- River overflow **can be caused by factors such as heavy rainfall, snowmelt, cyclones, dams, barrages, or siltation**.
- For example, in 2023, the **Yamuna River overflowed its banks** due to heavy rainfall in upstream states such as Himachal Pradesh and Haryana. The barrages in Delhi were unable to effectively regulate and redirect the river's flow, **leading to flooding of several areas along the river**.

What are the Impacts of Floods in India?

➤ Loss of Life:

- Floods can cause fatalities due to drowning, injuries, infections, or electrocution. According to the **National Disaster Management Authority (NDMA)**, floods are one of the most frequent and deadly natural disasters in India.
- Every year on average 1,600 lives is lost due to floods.
- Only half past 2023, **at least 60 deaths have been confirmed** due to floods across North India, though the actual toll may be higher.

➤ Damage to Property:

- Floods can damage or destroy houses, buildings, roads, bridges, railways, power lines, communication networks, and other infrastructure.
- Floods can also damage or wash away crops, livestock, vehicles, and other assets.
- According to the NDMA, floods affect about **75 lakh hectares** of land and inflict damage worth **Rs 1,805 crore** to crops, houses and public utilities every year in India.
- In 2023, floods have caused extensive damage to several landmarks in Delhi, such as the **Red Fort and the Supreme Court**.

➤ Displacement of People:

- Floods can force people to leave their homes and seek shelter in safer places. This can disrupt their normal lives and livelihoods.

- Floods can **also create humanitarian crises** by affecting the availability of food, water, sanitation, health care, and education.
- According to the **Internal Displacement Monitoring Centre**, floods displaced about **5.4 million people** in India in 2020.
- In 2023, floods have **displaced thousands of people in North India**, especially in Himachal Pradesh and Punjab.

➤ **Environmental Degradation:**

- Floods can have negative impacts on the environment by eroding the soil, altering the natural habitats of **flora and fauna**, **polluting the water sources**, and **increasing the risk of landslides and epidemics**.
- Floods can also affect the ecological balance of rivers and wetlands by changing their hydrology and biodiversity.
- For example, floods **can threaten the survival of endangered** species such as the **Gangetic dolphin** and the **gharial** in the Yamuna River.

➤ **Economic Losses:**

- Floods can affect the economic growth and development of India by reducing the **agricultural output**, **disrupting the industrial production**, **affecting the trade** and commerce, and increasing the expenditure on relief and rehabilitation.
- Floods **can also affect the tourism sector** by damaging the cultural heritage and natural attractions. According to a study by the World Bank, floods cost India about **\$14 billion** annually in direct losses.

What are the Solutions for Flood Management in India?

➤ **Structural Measures**

○ **Storage Reservoirs:**

- These are artificial structures that **store water during high-flow periods** and release it during low-flow periods.
- They can moderate the flood peak by reducing the volume and velocity of water downstream.
- They can also conserve water for irrigation, electricity generation, water supply, and other purposes.
- For example, the **Bhakra Nangal Dam on the Sutlej River** has a storage capacity of about **9.34 BCM (billion cubic meters)** and helps in flood control as well as power generation and irrigation.

○ **Embankments:**

- These are raised structures that confine the flow of water within a channel or along a bank.
- They can **protect the adjacent areas from flooding by increasing the carrying capacity** of the river or diverting the excess water to other channels.
- They can also provide access roads and recreational facilities along the river.
- For example, **the Kosi embankment project in Bihar** aims to prevent flooding by constructing embankments along both sides of the Kosi River.

○ **Diversions:**

- These are structures that divert a part or all of the flow of water from one channel to another.
- They can **reduce flooding by transferring excess water to less vulnerable areas** or storage reservoirs.
- They can also **provide irrigation or drinking water** to other regions.
- For example, the **Indira Gandhi Canal project** diverts water from the Sutlej and Beas rivers to the Thar desert in Rajasthan for irrigation and drinking purposes.

➤ **Non-structural Measures**

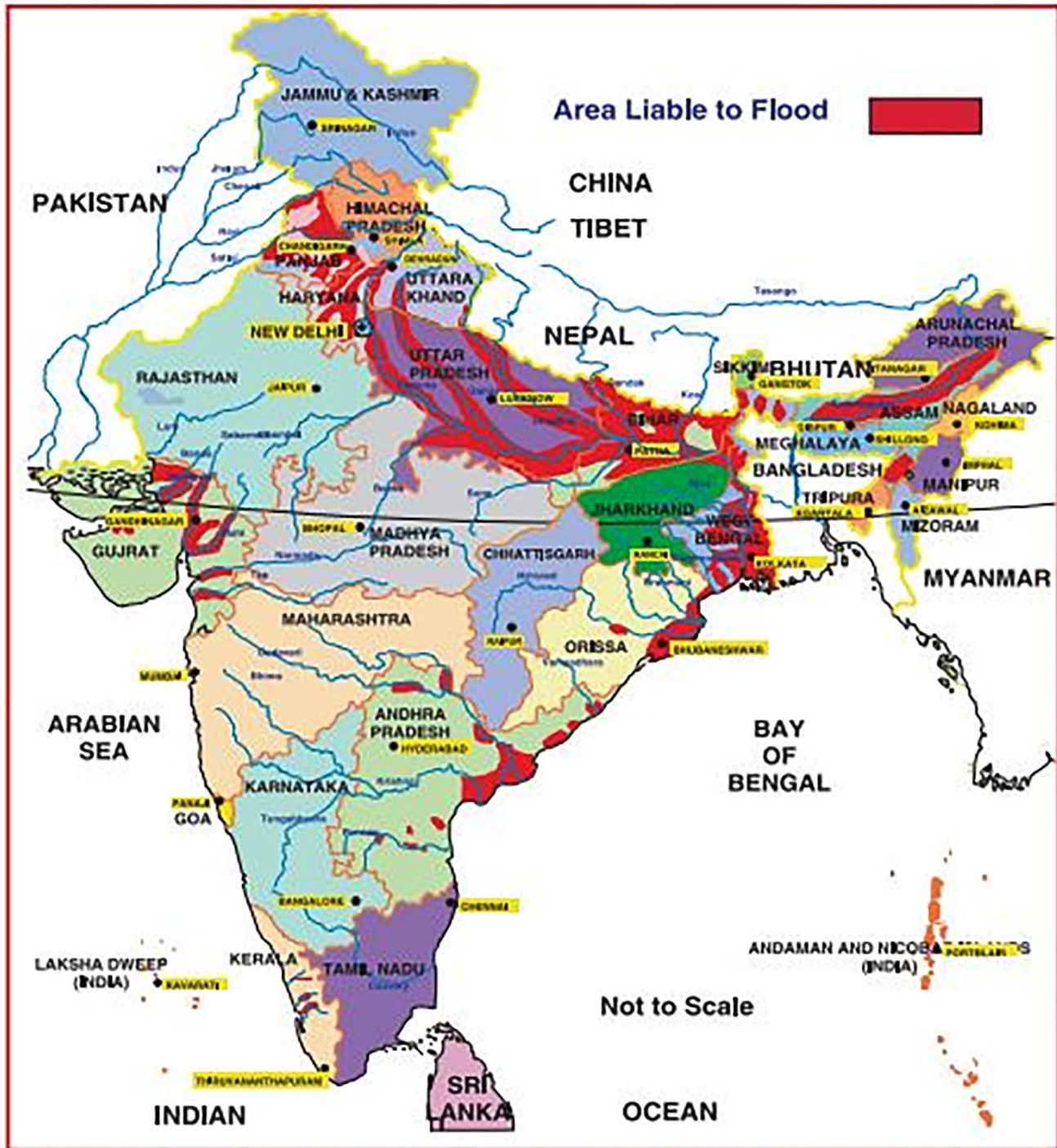
○ **Flood Forecasting and Warning:**

- This is a system that provides a prior estimate of approaching floods based on meteorological and hydrological data.
- It helps in **timely evacuation of people and movable assets** to safer places.
- It also helps in reservoir operation and flood relief coordination.
- For example, the **Central Water Commission (CWC)** operates a network of **flood forecasting stations across India** that issue daily bulletins and alerts on flood situations.

○ **Flood Plain Zoning:**

- This is a regulatory measure that restricts or regulates the use of land in flood-prone areas based on their vulnerability and suitability.
- It **aims to minimize the exposure and damage to human settlements and infrastructure** by discouraging or prohibiting development activities in high-risk zones.
- It also **promotes conservation and restoration** of natural flood buffers such as wetlands and forests.
- For example, NDMA has **issued guidelines for flood plain zoning** in India that classify the land into four zones: prohibited, restricted, regulated, and free.

AREA LIABLE TO FLOODS



○ Flood Insurance:

- This is a financial measure that provides compensation for losses caused by floods to individuals or groups who pay a premium to an insurance company.
- It aims to reduce the burden of **relief and rehabilitation on the government** and encourage risk reduction measures by the insured parties.
- It also helps in creating a database of flood risk and damage assessment. For example, the **Pradhan Mantri Fasal Bima Yojana** (PMFBY) is a crop insurance scheme that **covers losses due to floods and other natural calamities**.

○ Flood Awareness and Education:

- This is a social measure that involves creating awareness and imparting knowledge about floods among **various stakeholders such as communities, officials, media, NGOs, etc.**
- It aims to **enhance the preparedness and response capacity** of people by providing information on flood hazards, risks, mitigation measures, early warning systems, evacuation routes, emergency contacts, etc.
- It also helps in building a culture of safety and resilience among people.
- For example, the NDMA conducts various awareness campaigns and training programs on flood management in India.

What Should be the Way Forward?

- The entire suite of measures **structural and non-structural, appropriate mix of grey, blue and green infrastructure** needs to be considered for flood management.
- **Mindsets need changing flood flows** should be seen as a resource to be conserved for subsequent use and water security.
- **A river basin approach should be adopted** for flood management while taking care of the environment.
- It is prudent we **upgrade the hydro-infrastructure in the country** now so that the tools to manage increased variabilities are available in time.



The Scope of Approval Voting in India

*This editorial is based on **Many of the Above** which was published in The Indian Express on 18/07/2023. It talks about the approval voting system and challenges associated with the approval voting.*

Tag: Indian Polity, GS Paper-2, Indian Constitution

India is a **diverse and multi-party democracy**, with more than **600 parties** contesting the general elections and nearly **three dozen parties** having at least one member in **Parliament**.

The **first-past-the-post (FPTP)** method is incongruous with India's unique political diversity, as it rewards the **splitting of votes among numerous parties** and creates incentives for opportunistic and unnatural alliances among parties.

Approval voting, on the other hand, **can reduce voter fragmentation and encourage ideological politics**, as it allows voters to express their support for multiple parties without fear of wasting their vote or helping their least preferred option. It can also prevent post-election defections and horse-trading (political vote trading), as it **reduces the need for pre-poll alliances and seat-sharing arrangements among parties**.

What is the First Past the Post System?

➤ About:

- An electoral system in which voters cast a **vote for a single candidate**, and the candidate with the **most votes wins the election**.
 - Also known as the **simple majority system or plurality system**.
- One of the **simplest and oldest electoral systems**, used in countries such as the UK, the US, Canada, and India.

➤ Features of the First Past the Post System:

- Voters are **presented with a list of candidates nominated by different political parties** or running as independents.
- Voters choose one candidate by **marking their ballot paper or electronic voting machine**.
- The candidate **who receives the most votes in a constituency is declared the winner**.
- The winner **does not need to get a majority** (more than 50%) of the votes, but only a plurality (the largest number) of the votes.

➤ Alternative Electoral Systems:

- **Proportional Representation (PR) Systems:**
 - These are systems that **allocate seats to political parties or candidates according to their share** of the popular vote.
- **Ranked Voting Systems:**
 - These are systems that **allow voters to rank candidates in order of preference**, rather than choosing one candidate.
- **Score Voting Systems:**
 - These are systems that **allow voters to score candidates on a numerical scale**, rather than choosing one candidate or ranking them.

What is Approval Voting?

- Approval voting is a voting method that **allows voters to choose as many candidates or parties** as they want from a list of options.
 - The winner is the **candidate or party that receives the most approvals** or tick marks from the voters.

- Approval voting is **different from the FPTP method**, which **forces voters to choose only one option** and gives the victory to the option with the most votes, even if it does not have a majority.
- Approval voting is also **different from ranked-choice voting**, which requires voters to rank their preferences of candidates or parties and eliminates the **least preferred options until one option has a majority**.
- Approval voting is a **well-researched voting methodology** that is used in elections with **multiple credible choices**, such as in the **United Nations**, internal party **primaries in the US**, and sometimes in the election of the Pope.

How does MOTA

Offers a Way to Implement Approval Voting?

- Approval voting can be **implemented in India by adding a new option** on the ballot paper called **MOTA (Many Of The Above)**, which is the **mirror image of NOTA** (None of the Above) that we already have on every ballot.
- MOTA would **allow voters to choose as many candidates or parties** as they want **from a list of options**, instead of forcing them to choose only one.
- MOTA would **not require any major changes in the existing electoral system** or machinery, as it would only involve adding a new option on the ballot paper and counting the number of approvals for each option.
- MOTA would also **not violate any constitutional or legal provisions**, as it would not affect the right to vote or the representation of people in Parliament.

What are the

Benefits of Approval Voting for India?

- **Increase in Voter Turnout:**
 - It can increase voter turnout and participation, as voters would have **more choices and freedom to express** their preferences.
- **Reduce Polarization:**
 - It can reduce polarization and extremism, as voters would be **encouraged to consider more moderate** and inclusive options rather than choosing between extremes.
- **Wider Representation:**
 - It can enhance representation and accountability, as candidates and parties would have to appeal to a broader and **more diverse electorate** rather than catering to narrow interests or loyal bases.
- **Ensure Stability:**

- It can foster stability and governance, as it **would reduce the dependence on coalitions** and alliances that are often unstable and prone to corruption or blackmail.

What are the

Challenges of Approval Voting for India?

- **Lack of Familiarity and Understanding:**
 - Approval voting is a relatively new concept in Indian politics, and many voters may be unfamiliar with the methodology.
 - Building **awareness and educating voters about how approval voting works and its advantages** **would be essential** to gain acceptance and ensure effective implementation.
- **Resistance from Established Parties:**
 - Approval voting may **face resistance from established political parties**, particularly those who benefit from the existing FPTP system or have a stronghold in certain regions.
 - Parties may be **reluctant to embrace a system** that could challenge their dominance or disrupt existing electoral dynamics.
- **Potential for Fragmented Results:**
 - While approval voting aims to reduce fragmentation, **there is a possibility that the outcome may still lead to fragmented** results, particularly if a significant number of candidates receive high approval ratings.
 - This may result in the need for **post-election coalition-building** or further rounds of voting to determine a clear winner.
- **Constitutional and Legal Considerations:**
 - Implementing approval voting may require constitutional or legal amendments to existing election laws.
 - Overcoming **legal hurdles and ensuring compliance** with constitutional provisions may pose challenges that need to be carefully addressed.

What Steps can be Taken for Introduction

and Effective Implementation Approval Voting?

- **Promote Awareness and Education:**
 - Conduct public awareness campaigns to **educate voters about the concept and benefits of approval voting**.
 - Collaboration among civil society organizations, educational institutions, and media outlets to disseminate information on the advantages of approval voting in reducing voter fragmentation.

- **Pilot Programs and Case Studies:**
 - Implement pilot programs in select constituencies or regions **to test the feasibility and effectiveness** of approval voting in the Indian context.
 - Conduct case studies and gather empirical **data on the outcomes of approval voting**, highlighting its potential to minimize vote splitting and encourage voter participation.
- **Engage with Political Parties:**
 - Encourage political parties to **open dialogues and discussions** on the adoption of approval voting as an **alternative electoral method**.
 - Highlight the advantages of approval voting in fostering ideological politics and **reducing the reliance on opportunistic alliances**.
- **International Collaboration and Expert Consultation:**
 - **Seek collaboration** with international organizations and **electoral experts who have experience with approval voting** or similar alternative voting methods.
 - Organize **consultations and workshops with experts** to gather insights, learn from best practices, and adapt approval voting methodologies to suit the unique characteristics of Indian elections.
- **Public Discourse and Debates:**
 - Encourage public debates and discussions on the **need for electoral reforms** and the potential benefits of approval voting.
 - Facilitate **platforms for experts, academics, politicians, and citizens to express their views** and opinions on the subject, fostering a wider understanding and acceptance of approval voting.

■■■

Assessing the Scope of PACS-FPO Integration

*This editorial is based on **Catalysing cooperation between PACS and FPO** which was published in The BusinessLine on 17/07/2023. It talks about the challenges and opportunities of Primary Agriculture Cooperative Societies (PACS) and the Farmer Producer Organizations (FPOs).*

Tag: Agriculture, GS Paper - 2, Agricultural Marketing

India has a large and **diverse agricultural sector**, with **more than 13 crore farmers**, most of whom are small and marginal. To empower these farmers and improve their access to finance, markets, and services, the **government has launched various initiatives**, such as

the computerisation of **Primary Agriculture Cooperative Societies (PACS)** and the formation of **Farmer Producer Organizations (FPOs)**.

PACS-FPO integration is a **win-win proposition for both the entities and the farmers**. It can **create a model of cooperation and collaboration** that can inspire other sectors and regions.

These two entities can **play a vital role in transforming the rural economy and enhancing the income and livelihood of farmers**. However, to achieve their full potential, they need to work together in a synergistic and collaborative manner.

What are PACS and FPOs?

- **Primary Agriculture Cooperative Societies:**
 - PACS are **cooperative societies that provide short-term credit** and other services to their members, who are mostly farmers.
 - They are the **grassroots level institutions** of the cooperative credit structure in India.
 - There are **about 90,000 PACS in the country, with a membership of 13 crore farmers**.
 - PACS are being transformed by **computerisation, undertaking multiservice, distribution of electricity, water, medicines** and offering services as **Common Service Centres (CSC)**.
- **Farmer Producer Organizations:**
 - FPOs are **legal entities formed by a group of farmers who share common interests and goals**.
 - They are **registered under various legal forms**, such as cooperatives, companies, trusts, or societies.
 - FPOs aim to **provide better access to finance and markets** to small and marginal farmers by aggregating their produce and bargaining power.
 - They also **provide technical assistance, input supply, value addition, and quality assurance** to their members.
 - There are **about 7,500 FPOs in the country**, registered by various agencies.

How can be the PACS-FPO Integration Significant?

- **Strengthened Farmer Support:**
 - Integration can provide farmers with a **comprehensive support system that combines credit services, marketing opportunities, and technical assistance**.
 - This holistic approach can contribute to enhancing farmer incomes and improving their overall well-being.

- **Market Access and Value Addition:**
 - FPOs can benefit from the established market linkages and networks of PACS, expanding **their reach and enhancing their bargaining power**.
 - Integration can enable FPOs to access better markets, negotiate favorable prices, and add value to their agricultural produce.
- **Knowledge Sharing and Expertise:**
 - PACS, with their experience and expertise in rural finance, can share their knowledge and best practices with FPOs.
 - This collaboration can help FPOs in areas such as **financial management, risk assessment, and governance, strengthening their operational efficiency**.
- **Resource Pooling:**
 - Integration can lead to resource pooling, including **financial resources, infrastructure, and technical expertise**.
 - Sharing resources between PACS and FPOs can optimize costs, increase efficiency, and create synergies that benefit both entities.
- **Policy Support and Recognition:**
 - Integration of PACS and FPOs can draw attention to the importance of **collective action and farmer-centric initiatives**.
 - It can generate policy support and recognition, leading to **favorable policies, incentives, and schemes** to further promote and strengthen the integrated model.
 - For e.g., the FPO's primarily those dealing with **one district one product** (ODOP) and taking advantages of **World Bank sponsored SMART & Central Government schemes** have been performing comparatively well; even crossing the turnover of more than one crore.
- **Innovation and Technology Adoption:**
 - Integrating PACS and FPOs can facilitate the adoption of innovative practices and technologies.
 - This can lead to improved agricultural productivity, efficient supply chains, and enhanced market access, contributing to the overall growth and development of the agricultural sector.

How can PACS and FPO Work Together?

- **Cooperation in Credit:**
 - PACS can provide credit and other services to FPOs and their members at concessional rates and flexible terms. This will help FPOs to overcome their financial constraints and scale up their operations.

- **Better Networking:**
 - FPOs can leverage the existing network and infrastructure of PACS to reach out to more farmers and markets. This will help FPOs to reduce their transaction costs and increase their efficiency.
- **Collective Marketing:**
 - PACS can benefit from the collective marketing and value addition activities of FPOs by getting **better prices and quality for their produce**. This will help PACS to improve their **profitability and sustainability**.
- **Leveraging Social Capital:**
 - FPOs can benefit from the **social capital and trust that PACS have among the farmers** by involving them in their governance and decision making. This will help FPOs to enhance their legitimacy and accountability.
- **Other Economic Cooperation:**
 - PACS and FPO can jointly undertake high income generating activities like **beekeeping, mushroom cultivation, non agri sector like handloom, handicrafts, travel, media, education and health**.

What are the Challenges to the PACS-FPO Integration?

- **Organizational and Cultural Differences:**
 - PACS and FPOs have **different organizational structures, governance systems, and operational processes**.
 - Integrating the two entities would require **addressing these differences and establishing a cohesive framework** that accommodates both.
- **Trust and Cooperation:**
 - Building trust and fostering cooperation between PACS and FPOs is crucial for successful integration.
 - PACS often have long-standing relationships with farmers, and **FPOs need to establish themselves as reliable partners**. Overcoming any **initial scepticism or resistance** would be vital for collaboration to flourish.
- **Reforming Regulatory and Legal Frameworks:**
 - Aligning the **regulatory and legal frameworks governing PACS and FPOs** can be challenging.
 - Addressing any discrepancies, **ensuring compliance with applicable laws**, and creating a supportive regulatory environment for integrated operations may **require legislative amendments or policy changes**.
- **Financial Integration:**

- Integrating financial services and ensuring **seamless access to credit, savings, and other financial products** for FPOs within the existing PACS infrastructure would require careful coordination and planning.

What are the New Business Models that can Emerge from PACS-FPO Integration?

- **Platform Cooperatives:**
 - These cooperatives use **digital platforms to connect producers with consumers** can offer services such as **e-commerce, e-learning, e-healthcare**, etc., using the data generated by their members.
- **Sustainable Cooperatives:**
 - These are cooperatives that adopt sustainable practices such as **organic farming, agroforestry, renewable energy, waste management**, etc., to reduce their environmental impact and enhance their social impact.
- **Circular Economy:**
 - PACS and FPOs can adopt **circular economy** principles by using biodegradable packaging, composting organic waste, recovering nutrients, etc.
- **Regenerative Agriculture:**
 - PACS and FPOs can practice **regenerative agriculture** by using techniques such as **no-till, cover crops, crop rotation, mulching**, etc.
- **Custom Hiring Centres:**
 - These centres **provide rental farm machinery and equipment** (drones, sensors, irrigation systems etc.) **to farmers** who cannot afford to buy or maintain them.

What Steps can be taken to Integrate PACS and FPOs?

- **Role that Govt and Other Agencies can Play:**
 - **Enabling Policy Environment:** Provide conducive policies and regulations to support the integration of PACS and FPOs.
 - **Capacity Building and Mentoring Support:** Provide training, guidance, and handholding to the PACS and FPOs on various aspects of integration.
 - **Participatory Learning Platforms and Incubation Centres:** Create platforms and centres where PACS and FPOs can learn from each other's experiences, share best practices, and access innovation support.
- **Role of PACS and FPOs:**
 - **Collaborations with Various Stakeholders:** Forge partnerships and collaborations with other actors such as NGOs, private sector, research institutions, media, etc. to enhance their capacities and outreach.

- **Innovations and Entrepreneurship among Farmers:** Encourage and support the farmers to develop new ideas, products, services, and enterprises that can add value to their produce and income.

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Roadmap for Multi-Dimensional Poverty Eradication

*This editorial is based on **A roadmap to eliminate poverty in India** which was published in **The Indian Express** on 19/07/2023. It talks about the possible growth strategy for India for the next 25 years, considering the global and domestic factors that may affect its development.*

Tag: Indian Economy, GS Paper - 2, Poverty, Social Justice, GS Paper - 3, Growth & Investment

With Covid-19 under control and hopes for a peaceful resolution to the Russia-Ukraine War, India must plan its future growth strategy. The main goal is to increase the average income per person, which was around USD 2,379 in 2022-23, by nearly six times over the next 25 years. This will improve people's living standards and reduce poverty. Now, the important task is to identify the challenges India will encounter in achieving this objective and the necessary actions to overcome them.

What is the Status of Poverty in India?

- According to NITI Aayog's **National Multidimensional Poverty Index (MPI)**, India's population living in multidimensional poverty was 14.96%.
 - The rural areas of India experienced multidimensional poverty of **19.28%**.
 - In urban areas, the poverty rate was **5.27%**.
- According to the data from the World Bank, about 10% of the Indian population lives on less than USD 2.15 a day, which is the international poverty line for lower-middle income countries.

What are the Reasons behind Multi-Dimensional Poverty in India?

- **Lack of Inclusive Economic Growth:** India has achieved impressive economic growth in recent decades, but it has not been equally distributed among different segments of society. The **Gini coefficient**, which measures income inequality, has increased from 0.32 in 1983 to 0.36 in 2019.
 - Moreover, India's growth has been largely driven by the service sector, which employs only a small fraction of the workforce.

- The majority of the population still depends on the agriculture sector, which has low productivity and income.
- **Sluggish Agricultural Performance and Poverty:** Agriculture is the main source of livelihood for about 50% of the Indian population, but it contributes only around 17% to the GDP. The agriculture sector faces many challenges, such as fragmented and subdivided landholdings, lack of capital, illiteracy about new technologies, use of traditional methods of cultivation, wastage during storage, climate change, and natural disasters.
- **Non-implementation of Land Reforms:** Land is a crucial asset for the rural poor, but its distribution is highly unequal in India. According to the 2011 Census, about 5% of the rural households own 32% of the land, while 56% of the rural households own only 10% of the land. **Land reforms**, such as redistribution of surplus land, tenancy reforms, ceiling on landholdings, and land rights for women and marginalized groups, have not been effectively implemented in most states.
- **Rapid population growth:** India's population has steadily increased through the years. During the past 45 years, it has risen at a rate of 2.2% per year, which means, on average, about 17 million people are added to the country's population each year. This also increases the demand for consumption goods tremendously.
 - However, there is not enough expansion in opportunities and resources to match this demand.
 - Population growth also puts pressure on the environment and natural resources, which are already scarce and degraded.
- **Unemployment and under-employment:** Unemployment is another factor causing poverty in India. The ever-increasing population has led to a higher number of job-seekers. However, there is not enough expansion in employment opportunities to match this demand.
 - The unemployment rate in India was 8.11% in April 2023, according to the Centre for Monitoring Indian Economy (CMIE). This is the highest unemployment rate in India since April 2020.
 - Moreover, many people who are employed are under-employed or engaged in low-quality jobs that do not provide adequate income or social security.
- **Slow growth of employment opportunities in the organised sector:** The organised sector in India accounts for only about 10% of the total employment. The majority of the workforce is employed in the unorganised sector, which is characterized by low wages, poor working conditions, lack of social protection, and high vulnerability to shocks.

- The organised sector has not been able to absorb enough workers from the unorganised sector due to various reasons such as skill mismatch, rigid labour laws, high cost of doing business, and lack of infrastructure.
- **Lack of access to basic services:** Poverty is not only about income deprivation but also about lack of access to basic services such as education, health care, water, sanitation, and electricity. These services are essential for human development and well-being. However, many people in India do not have access to these services due to various reasons such as affordability, availability, quality, and discrimination. For example,
 - According to the **National Family Health Survey 2019-21 (NFHS-5)**, which was conducted in 2019-20, there are an estimated 16.2 million children in India aged 6-17 years who are not attending school.
 - According to the **National Health Profile (NHP) 2019**, there is one government doctor for every 10,926 people and one government hospital bed for every 1,844 people.

What is the Way Forward?

- **Quest for Continuous Growth:** There is a need of continuous growth of 7% during the next 25 years. This requires a **Gross Fixed Capital Formation** rate of 28%, taking into account an incremental capital-output ratio (ICOR) of 4. The assumed ratio of 4 is based on better use of capital.
 - The **incremental capital output ratio (ICOR)** basically refers to the **additional capital required to generate additional output**.
- **Increase the Investment:** India needs to work towards achieving the required investment rate in the next 25 years which may be in the range of 30-32% of GDP. While recognising that public investment has picked up, it is necessary to emphasise that the investments by the business sector, both corporate and non-corporate, must increase.
 - The investment must flow into sectors and segments which are crucial to promote growth and employment generation.
 - While **foreign direct investment** must be welcomed, particularly in the newly emerging technological sectors, bulk of the investment must come from within.
- **Adopt a Multi-Dimensional Strategy:** The export-led growth strategy like China and South Korea may not work for India, particularly in the context of changed global trade situation. The emphasis should be on agriculture and related activities, manufacturing and exports. India has emerged strongly in the services area.

- **Addressing the Challenge of AI Absorption and Employment Impact in India:** India faces a critical issue concerning the assimilation of new technologies, particularly **Artificial Intelligence (AI)** and its wide-ranging implications. AI is expected to boost productivity and output significantly, but it may not necessarily create new jobs. This poses a particular concern for highly populated countries like India. To navigate this challenge successfully, a proactive approach must be adopted.

- It is imperative to reorient the educational system to equip students with the essential skills required to thrive in the AI-driven future job market. Emphasizing AI-related fields and fostering a culture of continuous learning will be vital.
- It is equally crucial to identify labour-intensive economic activities that can serve as potential avenues for employment. By focusing on sectors that are less susceptible to AI-driven automation, we can mitigate the impact on employment to some extent.

- **Include a Provision for Basic Income:** There are many issues connected with **basic income** which need to be resolved. The level of basic income and the coverage of beneficiaries have to be determined taking into account certain normative considerations and the capability of the funds.

- With basic income, we should be prepared to cut down most subsidies other than those on food.
- In an uncertain world, the need for the provision of basic income becomes even more urgent.

- **Focusing on the Climate for Peace:** This is vital for sustainable growth. The recent Ukraine-Russia conflict has adversely affected this climate, posing a significant threat to future growth if tensions persist. Furthermore, we must closely monitor supply disruptions of essential imports such as oil, as these disruptions can have severe repercussions not only on developing nations but also on developed countries.

Conclusion

In the past 75 years, India has built a reasonably strong and diversified economy. Though India is today the fifth largest economy, which is an achievement, in per capita terms, it is ranked (2022) 149 out of 194 countries. Thus, we have a long way to go. Growth is important to lift the economy up. We have the potential. As of now, the external situation is not encouraging. We have to live with it. But a 6 to 7% growth continuously is still possible if the strategy is correct and if we can create an appropriate investment climate.



France: India's Natural Ally

This editorial is based on "India, France and what keeps their ties ticking" which was published in The Hindu BusinessLine on 19/07/2023. It talks about the compatibility of India diplomatic ties with France and the scope of strengthening the same even more.

Tag: International Relations, GS Paper 2, Effect of Policies & Politics of Countries on India's Interests

Celebrating **25 years of the India-France strategic partnership** was at the top of the agenda during the Prime Minister's two-day visit to France which ended with a number of agreements and a slew of defence deals.

The visit marked the two countries launching an **"Indo-Pacific Roadmap"** covering security, the environment and renewable energies etc. as well as a **"Horizon 2047"** agenda for the wider relationship, covering a deeper military industrial relationship, cooperation in digital technologies, transition towards a low-carbon economy, urban transition, trade and investments, and people-to-people contacts.

While India's ties with each of the **P5 countries of UNSC** is unique, the feature that sets apart the India-France relationship is the **geopolitics sans value judgements**. It would not be wrong to say that of all the countries that the PM has visited, especially in the West, **France is perhaps the one with which India has the most common ground.**

How are India's Diplomatic Ties with France?

➤ Pillars of Relationship:

- India and France share **long-standing cultural, trade and economic linkages**. The **India-France strategic partnership, signed in 1998**, has gathered significant momentum over time and has today evolved into an even closer multifaceted relationship that spans diverse areas of cooperation.
- Both countries have held on to three pillars in the relationship:
 - **Non-interference** in each other's internal affairs
 - A steadfast belief in **strategic autonomy** and non-alignment
 - The **refusal to pull the other into its own coalitions** and alliances
- In this and many other ways, their relationship has proven itself to be different from the other major partnerships that India has built across the world.

➤ France's Response on India's Affairs:

- The Indo-French ties are built on a respect for each other's strategic autonomy. **France has remained steadfast in its refusal to comment on India's internal affairs** or its foreign policy choices.

- While France has taken a leading role in the western pushback to Russia's war in Ukraine, it has **not joined other western countries in publicly exhorting India to change its stand.**
 - Even when **India abstained from voting on the resolutions** at UNSC and UNGA, **no word of disappointment was expressed by France** given the fact that it co-authored a UNSC resolution with Mexico (to ensure unhindered humanitarian inside the conflict zone);
- Even when **India conducted its nuclear tests in Pokhran (Pokhran-II)**, the **French diplomats in the UNSC did not join the US-led move to impose sanctions** on India.
 - It even stepped in with **uranium supplies to power the Tarapur reactors.**
- **Defence Partnerships at Core:**
 - At the core of the Indo-French relationship is the defence partnership; France comes across as a **far more willing and generous partner when compared to other western countries.**
 - Starting with the **Rafale deal** to the **latest acquisition of 26 of the aircraft's marine version**, the French have been willing to give the Indians some of their best defence systems.
 - Meanwhile, technology transfers by France have already helped India construct **six Scorpene-class submarines** with another three now being procured to boost the navy's falling numbers.
- **Similarity in Stand on NATO+:**
 - France announced publicly that it **disapproves of a North Atlantic Treaty Organisation (NATO)-plus partnership plans**, that would see the Trans-Atlantic alliance build direct ties with Japan, Australia, New Zealand, South Korea and even India.
 - India has also rejected the plan saying that **NATO "is not a template that applies to India"**.
- **Strategic Partnerships:**
 - France had been non-problematic about the **"Quad-Plus" coalitions**, first floated in 2020, (but were dropped after **US-France rift over the AUKUS agreement**).
 - France is also the **only country the Indian Navy has conducted joint patrols with so far**, and future plans could involve the **use of French international territories** in Reunion, New Caledonia and French Polynesia, and even **India's Andaman Islands**, for port calls and reconnaissance by both navies on a bilateral basis.
 - The **India-France Roadmap on the Indo-Pacific** released recently also clarifies that neither side is

attempting to pull the other into its other regional military coalitions.

Challenges

- The diplomatic ties between France and India, despite being positive, **lack a Free Trade Agreement (FTA)** which **limits the trade potential from being utilised to its fullest.** The **slow to no progress** on the India-EU **Broad-Based Trade and Investment Agreement (BTIA)** also adds to this issue.
- While the two nations share a strong defence partnership, their **defence and security cooperation can be influenced by differing priorities and approaches.** India's regional focus and "non-aligned" policy may occasionally clash with France's global interests.
- France has also **raised concerns over India's inadequate protection of intellectual property rights**, impacting French businesses operating within India.

Way Forward

- **Leveraging Similar Ambitions to Empower Each Other:**
 - A **shared determination to maintain strategic autonomy** in a complex geopolitical landscape has helped both powers develop a degree of trust and a pragmatic partnership.
 - France is strong enough to have something to offer on the diplomatic, military, space, and nuclear sectors to India.
 - India is important enough for France when it comes to trade and defence cooperation in the context of threats like Russian aggression or terrorism in Africa.
 - Both can support each other in shaping international order or even to balance out other nations on which one of them is heavily dependent.
- **Better Cooperation in Indo Pacific:**
 - The Indo-Pacific concept has provided a useful frame for the thriving Franco-Indian relations. France, more than the Quad partners, has a **direct interest in the stability of the Indian Ocean** owing to its **overseas territories and military bases** in the Indian Ocean.
 - The Indo-Pacific forum between the two should be able to **better assist in ensuring strategic interests and bilateral cooperation.**
- **Potential Areas of Cooperation with France:**
 - France plays a **critical role in India's ambitious plans to expand domestic weapon production** with increased private and foreign investment.
 - Discussions should **encompass emerging areas of collaboration**, including **connectivity, climate change, cyber-security, and science and technology.**

Conclusion

France and India are two major powers, one in Europe and the other in Asia, with a similar conception of the world. In effect, both countries follow an independent foreign policy and practise strategic autonomy, which they hope will enable them to shape a multipolar world. More crucially, both these powers realise that there is a much better chance of this happening if they work in close concert.



Rise of the Indian Rupee

*This editorial is based on **Will rupee trade gain currency globally?** which was published in The Hindu Businessline on 23/07/2023. It talks about the de-dollarization and internationalization of Indian rupee.*

Tag: Indian Economy, GS Paper-2, Effect of Policies & Politics of Countries on India's Interests, GS Paper-3, Monetary Policy, Liberalization

In the realm of global trade, the **US dollar has long reigned supreme**, acting as the dominant currency for **foreign exchange transactions**, trade invoicing, and **reserve holdings**.

India's ongoing efforts to promote the **use of the rupee in international trade** represent a step towards **de-dollarisation** and **currency diversification**. While challenges remain, the **combination of export growth, capital account convertibility**, and **sustained economic development** may pave the way for the rupee to gain currency globally.

The journey to reduce dollar dominance **requires concerted efforts**, and **success will depend on India's resilience and adaptability** in a rapidly evolving global economic landscape.

However, an increasing number of countries are recognizing the **inherent risks that come with an overreliance on the dollar**, including exposure to **US politics, sanctions, and exchange rate volatility**. As a response to these concerns, many emerging economies are actively pursuing efforts to de-dollarize their trade and diversify their currency usage.

What are the Trends in Currency Usage?

- **Use of Local Currencies in International Payments:**
 - **SWIFT** data indicates a rise in the usage of local currencies in international transactions between 2013 and 2019.
- **Non-Dollar-Denominated Trade on the Rise:**
 - The **Triennial Bank Survey of 2022** shows a marginal increase in the share of dollars in daily turnover, but emerging economies are increasingly engaging in non-dollar-denominated trade.

- **Rise of the Chinese Renminbi:**
 - In 2022, the **Chinese renminbi became the fifth most traded currency globally**, with over 70% of China-Russia trade settled in yuan and roubles.
- **Growth of Local Currency Bond Markets:**
 - Emerging market **local currency bond markets** expanded significantly from **2015 to 2021**, presenting an alternative to dollar-denominated assets.

What are India's Efforts to Strengthen the Rupee?

- **Establishment of the International Financial Services Centre (IFSC):**
 - India's first IFSC in **GIFT City, Gujarat**, aimed to promote the use of the rupee in **international financial transactions**.
- **Liberalization of Capital Markets:**
 - India increased the availability of rupee-denominated financial instruments, such as **bonds and derivatives**, to enhance the rupee's appeal.
- **Promotion of Digital Payment Systems:**
 - Initiatives like the **Unified Payments Interface (UPI)** have facilitated digital transactions in rupees.
 - Recently, France and Singapore have adopted UPI.
- **Introduction of Special Vostro Rupee Accounts (SVRAs):**
 - India permitted **authorized banks from 18 countries to open SVRAs** for settling payments in rupees at market-determined exchange rates.
 - Objectives of the Mechanism are lower transaction costs, greater price transparency, faster settlement time, and overall promotion of international trade.

What are the Opportunities for the Rupee's Global Standing?

- **Export Growth as a Catalyst:**
 - India's ambitious **export target of \$2 trillion by 2030** could contribute to improving the rupee's international standing.
- **Full Capital Account Convertibility:**
 - Achieving **full convertibility of the rupee would enhance its attractiveness** for international trade and investments.
- **Sustained Economic Growth:**
 - Higher and sustained **economic growth would strengthen India's position** in the global trade market.
- **Reducing US monetary Policy Influence:**
 - By reducing the use of the US dollar, countries can **reduce the influence of US monetary policy** on their own economies.

- **Improved Monetary Policy Effectiveness:**
 - Internationalisation can enhance the effectiveness of India's monetary policy.
 - With a broader international reach, the **Reserve Bank of India** (RBI) can use the exchange rate as a tool to manage inflation and stimulate economic growth.
 - It provides greater **flexibility in managing monetary conditions** and responding to economic challenges.

What are the Challenges and Limitations of Trade in Rupee?

- **High Dependency on Dollar Invoicing:**
 - Despite efforts, a **significant portion (86%) of India's imports is still dollar invoiced**, limiting the impact of de-dollarisation.
- **Non-Convertible Currency Concerns:**
 - Partner **countries may hesitate to engage in local currency trade** due to the rupee's lack of convertibility, leading to potential trade challenges.
- **Ballooning Rupee Reserves:**
 - Accumulation of rupees in partner countries' **reserves without adequate avenues** for its use may pose issues.
- **Exchange Rate Volatility:**
 - Internationalising the rupee exposes it to greater **exchange rate volatility**.
 - Fluctuations in the value of the rupee **can impact trade competitiveness, foreign investment flows, and financial market stability**.
 - Managing exchange rate risks becomes crucial in order to mitigate potential adverse effects.
- **Capital Flight and Financial Stability:**
 - Opening up the rupee to international markets may lead to capital flight if **investors lose confidence in the currency or anticipate unfavourable economic conditions**.
 - This can strain the country's foreign exchange reserves, impact financial stability, and create challenges for monetary policy management.
- **Capital Controls:**
 - India **still has capital controls in place that limit the ability of foreigners to invest and trade in Indian markets**.
 - These restrictions make it difficult for the rupee to be used widely as an international currency.
- **Competing Currencies:**
 - The rupee faces competition from established international currencies like the **US dollar, euro, and yen**, which enjoy widespread acceptance and liquidity.

- Gaining market share and displacing these dominant currencies **can be a significant challenge**.

What Should be the Way Forward?

- **Strengthening Currency Convertibility:**
 - India should **focus on achieving full capital account convertibility** for the rupee.
 - This will **enhance its attractiveness** as a viable currency for international trade and investments.
 - Efforts to **liberalize capital flows and ease foreign exchange controls** are crucial in this regard.
- **Encouraging Bilateral Currency Arrangements:**
 - India can explore **bilateral currency swap agreements** with partner countries to promote the use of the rupee in trade settlements.
 - Such arrangements **can reduce dependence on the dollar** and foster stronger economic ties with other nations.
- **Leveraging Regional Initiatives:**
 - India can collaborate with other countries in the region to **promote regional trade settlements** in local currencies.
 - Participating in initiatives like the **Chiang Mai Initiative Multilateralization (CMIM)** can strengthen the use of Asian currencies in trade and reduce reliance on the dollar.
- **Diversifying Trade Partnerships:**
 - India should **diversify its trade partnerships to reduce the concentration of imports and exports with specific countries**.
 - Engaging with a broader range of trading partners will create opportunities for increased usage of the rupee in global trade.
- **Building Trust in Currency Stability:**
 - Demonstrating prudent fiscal and monetary policies and maintaining currency stability will **instil confidence in the rupee as a reliable and stable currency** for international trade.

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India's Mining Potential

This editorial is based on "Incentivising mineral exploration" which was published in Financial Express on 21/07/2023. It talks about the scope of exploring India's potential in the mining sector and the corresponding challenges.

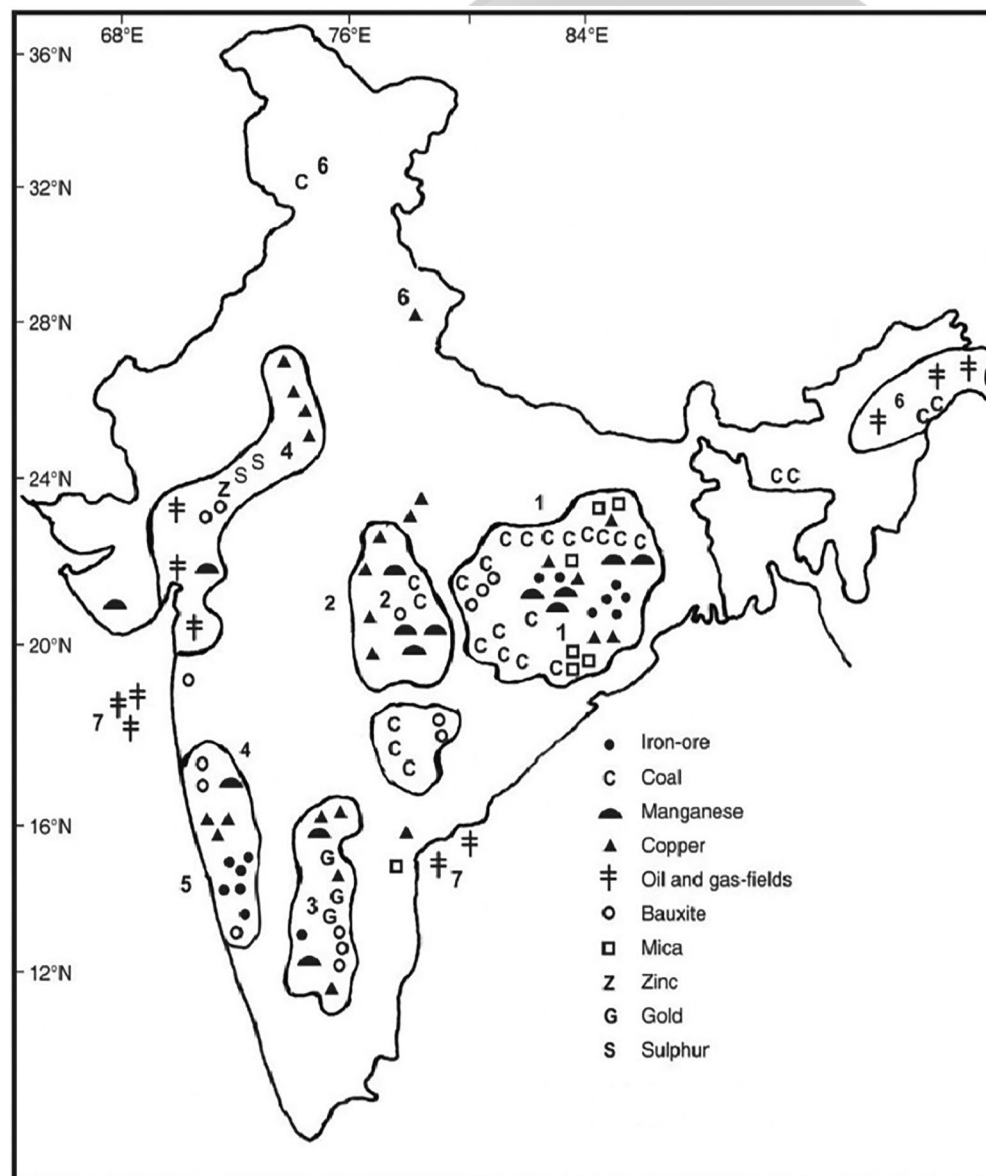
Tag: Economy, GS Paper 2, Government Policies and Interventions, GS Paper 3, Growth & Development, Industrial Growth, Industrial Policy

Minerals are precious natural resources that serve as **essential raw materials for fundamental industries**. The growth of the mining industry is essential for the overall industrial development of a nation.

India's mining industry has the potential to **significantly impact GDP growth, foreign exchange earnings, and give end-use industries** like building, infrastructure, automotive, and electricity, among others, **a competitive edge** by obtaining essential raw materials at reasonable rates.

With robust **domestic demand and rising interest among global manufacturers** to relocate plants to India, there is a terrific opportunity to emerge as a global hub for manufacturing. **India's enormous potential in minerals and metals** add to the country's allure. However, despite India's huge mineral deposits, its **mining sector is still suffering from legacy issues**.

What is the Scenario of India's Mining Sector?



Brief History of Privatisation:

- **India's economic liberalisation in the early 1990s** and the **National Mineral Policy of 1993** paved the way for private investment for mineral exploration in India.
 - As per the new norms, private companies could apply for exploration permits in India under the **First Come First Serve (FCFS) system**, granting them the right to explore and subsequently mine or sell any discovered minerals.
- A 2011 report by the working group (under **12th FYP**) highlighted the **importance of the FCFS system in encouraging private investment** in mineral exploration.
 - However, the SC in its 2012 judgement, held that the FCFS method of natural resource allocation was **susceptible to manipulation, favouritism and misuse**, further adding that with high risks and huge investments, auctions would deter private investment.

- The 2015 **Amendment to the Mines and Minerals (Development and Regulation) Act, 1957 (MMDR Act)** replaced the FCFS basis of mineral allocation with auctions.

Contribution to Indian Economy:

- Mineral mining is among the most important sectors with an impact on economic growth.
- In terms of generating employment, the sector, **second only to agriculture**, directly and indirectly **employs about 11 million people**, and **sustains the livelihood of about 55 million people**.

India's Scope in Mining Sector:

- India ranks **4th globally in terms of iron ore production** and is the world's **2nd largest coal producer** as of 2021.

- **Combined Aluminium production** (primary and secondary) in India stood at 4.1 MT per annum in FY21 becoming the **2nd largest in the world**.
- In 2023, the **mineral's demand is likely to increase by 3%**, driven by **expanded electrification and overall economic growth** in India.
 - India holds a **fair advantage in production and conversion costs in steel and alumina**. Its strategic location enables **export opportunities** to develop as well as fast-developing Asian markets.



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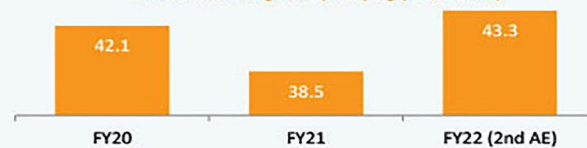
METALS AND MINING



MARKET SIZE

Trend Point: GVA from mining and quarrying stood at US\$ 43.3 billion in FY22, as per the advance estimates.

GVA from mining and quarrying (US\$ billion)

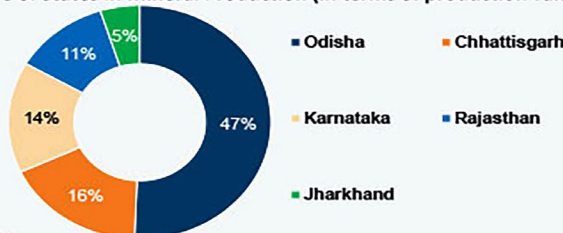


Note: RE- Second Revised Estimate ; GVA - Gross Value Added



SECTOR COMPOSITION

Share of States in Mineral Production (in terms of production value, FY22E)



Note: E- Estimate



KEY TRENDS

Mineral Production in India (in US\$ billion)^



Note: ^Excluding atomic and fuel minerals, P- Provisional, E- Estimate



GOVERNMENT INITIATIVES



ADVANTAGE INDIA

- **Demand growth:** In 2023, the mineral's demand is likely to increase by 3%, driven by expanded electrification and overall economic growth in India.
- **Attractive opportunities:** Under PLI Scheme for Specialty Steel, 67 applications from 30 companies have been selected that will attract committed investment of Rs. 42,500 Crore (US\$ 5.1 billion) with a downstream capacity addition of 26 million tonne and employment generation potential of 70,000.
- **Policy support:** Enactment of Mines and Minerals (Development and Regulation) Amendment Act, 2021 enabled captive mines owners (other than atomic minerals) to sell up to 50% of their annual mineral (including coal) production in the open market.
- **Competitive advantage:** India holds a fair advantage in cost of production and conversion costs in steel and alumina. As of FY22, the number of reporting mines in India were estimated at 1,245, of which reporting mines for metallic minerals were estimated at 525 and non-metallic minerals at 720.

What makes Exploring India's Mining Potential Significant?

- **For Sustainable Transport:**
 - India's new-age economy is likely to be **highly mineral intensive**. As **India's EV sales** are set to rapidly grow for the rest of this decade, **demand for lithium, cobalt, nickel and graphite will be high**.
 - Also, the demand for **iron ore in the form of steel, bauxite as a source of aluminium and copper** will be high as they are used across all types of vehicles.
- **For Smoother Energy Transition:**
 - Energy-transition minerals especially are expected to see demand explode, encouraged partly by participation in **production linked incentive (PLI) schemes for advanced chemistry cell (ACC) batteries, solar PV modules**, white goods and electronics manufacturing.
- **For Renewable Energy:**
 - **India's target of 500GW non-fossil energy capacity by 2030** will be largely met by solar and wind capacity.
 - However, the **International Energy Agency** says that onshore wind requires **9x more minerals than a gas-fired power plant**.
 - While aluminium and copper are crucial for solar power, **wind power needs rare earth elements (REE)**, zinc, copper and aluminium.
- **For Traditional Sectors:**
 - **Housing, infrastructure and transportation** will boost demand for iron ore, bauxite, copper, limestone, chromium, zinc, etc.
 - **Rapid industrial development** is projected to double domestic demand for iron ore, bauxite, zinc, copper, nickel, etc, by 2030.
 - In the primary sector, food security depends on **rock phosphate and zinc as agricultural inputs**.

What are the Major Challenges in Exploring India's Mining Potential?

- **Regulatory Hurdles:**
 - **Indian law does not let a miner own a mining lease beyond 10 km²** in area for a mineral in a state.
 - Although that limit has been expanded by some states, at the Union level, this limit **restricts major companies from participating in auctions**.
- **Inadequate Mineral Exploration:**
 - Another crucial obstacle is the lack of adequate mineral exploration. India's **expenditure on exploration**, particularly for **deep-seated minerals like copper, zinc, lead, gold, silver**, etc, has been **abysmally low**.

- **Highly Import Dependent:**
 - **Lack of exploration and a weak focus on mining** has seen India's import bill for minerals and metals touch **\$157 billion in 2021-22**, about 1/4th of the total imports.
- **Double Taxation:**
 - Minerals like iron ore and bauxite also face a problem of double taxation **in the form of royalty on royalty**.
 - As royalty is payable on the **average sale price (ASP)** and the **law does not allow any deduction of royalty from it**, mineral users end up paying royalty on royalty, which **dents their cost competitiveness**.

What Steps can be Taken to Make Mining in India More Favourable?

- **Incentivising Domestic Exploration:**
 - Recently, the **Ministry of Mines announced a list of 30 critical minerals** essential for the growth of many sectors in India.
 - These are required to manufacture green technologies such as wind turbines, solar panels, batteries, and electric vehicles.
 - **Incentivising domestic exploration** of these critical minerals is crucial for India's long-term goal of reaching **net-zero by 2070**.
- **Shift in Exploration Models:**
 - To encourage exploration, there is a need to shift from the **current 'revenue maximizing' model** to an **'exploration investment incentivizing' model**.
 - This can also **attract smaller explorers to India** that have contributed well to the development of the mineral sector in Canada, Australia, South Africa and the US.
- **Encouraging Private Companies:**
 - **Private participation in the mining of critical minerals** that have important non-atomic uses, like rare earth elements, lithium, titanium, niobium, etc, should be allowed.
 - Such **non-fissile minerals should be deleted from Part B** of the first schedule of the Mines and Minerals (Development and Regulation) Act, 1957, which is meant for atomic minerals.
 - More opportunities to private sector in exploration of critical minerals implies more mining efficiency and more self-sufficiency for India thus reducing India's mineral import bills.
- **Introducing an Independent Regulatory Body:**
 - The ambiguity among the different ruling parties at state and central level should not be allowed to hamper the growth of the mining sector.

- Therefore, the need is to have an independent regulating authority which should be **given power to work in the larger interest of public & economic growth.**
- Its purpose is to **make sure that no particular side is favoured** and **utilisation of resources for holistic benefit** of the country is maximised.



Women's Commissions in India

*This editorial is based on **Failures of Commission** which was published in The Indian Express on 25/07/2023. It talks about the role of National Commissions for Women and challenges associated with the commission.*

Tag: Social Issues, GS Paper - 2, Issues Related to Women, Gender

Women's commissions in India were **established with great promise and high expectations**, envisioned as institutions dedicated to **safeguarding the rights and interests of women** at both the national and state levels. Yet, as time has passed, the **need for a critical review of their functioning** and responses to pressing women's issues has become evident. Recent incidents of **molestation and rape in Manipur** have **brought these commissions into sharp focus**, revealing a disturbing saga of cruel disregard for human dignity and rights.

What are the Women's Commissions?

➤ National Commission for Women (NCW):

- The NCW is the **statutory body of the Government of India**, generally concerned with **advising the government on all policy matters** affecting women.
- It was **established in January 1992** under the provisions of the Indian Constitution, as defined in the 1990 **National Commission for Women Act**.
- The **objective of the NCW is to represent the rights of women in India** and to provide a voice for their issues and concerns.
- The subjects of their **campaigns have included dowry, politics, religion, equal representation for women in jobs**, and the exploitation of women for labour.
- The NCW also **receives and investigates complaints** from women who are victims of violence, discrimination, harassment, or deprivation of their rights.

➤ State Commissions for Women

- Apart from the NCW, there are also **State Commissions for Women in various states and union territories of India.**

- These commissions are **also established under the respective state acts** or orders and have similar functions and powers as the NCW.
- Some of the states and union territories that have their own commissions for women are Andhra Pradesh, Assam, Bihar, Chhattisgarh, Delhi, Goa, Gujarat, Haryana, Himachal Pradesh, Jammu and Kashmir, Jharkhand, Karnataka, Kerala, Madhya Pradesh, Maharashtra, Manipur, Meghalaya, Mizoram, Nagaland, Odisha, Punjab, Rajasthan, Sikkim, Tamil Nadu, Telangana, Tripura, Uttar Pradesh, Uttarakhand and West Bengal.

What are the Objectives and Functions of the Women's Commissions?

➤ Objectives of Women's Commissions:

- **Representation of Women's Rights:**
 - The primary objective of the **National Commission for Women (NCW)**, is to **represent and advocate for the rights of women** in India.
 - They **act as a voice for women's issues and concerns**, addressing various challenges faced by women in society.
- **Policy Advice:**
 - Women's commissions are **tasked with advising the government on policy matters that affect women.**
 - They provide valuable recommendations and suggestions to shape policies and legislation that **promote gender equality** and safeguard women's rights.
- **Safeguarding Constitutional Provisions:**
 - Women's commissions are **responsible for investigating and examining all matters** related to the safeguards provided for women under the Indian Constitution and other laws.
 - They **ensure that constitutional rights and protections** for women are upheld and implemented effectively.
- **Handling Complaints:**
 - These commissions are mandated to **address complaints** related to women's rights violations.
 - They **play a crucial role in investigating and resolving issues** of discrimination, harassment, violence, and other injustices faced by women.
- **Suo Motu Actions:**
 - Apart from responding to complaints, women's commissions **can also take suo motu notice** of matters related to the deprivation of women's rights and non-implementation of laws aimed at protecting women.

- This allows them to proactively address emerging issues affecting women.

○ Empowering Women:

- Women's commissions **work towards empowering women by promoting their economic development, education, and health.**
- They aim to **enhance women's employment potential and create opportunities** for their advancement in various sectors.

➤ Functions of Women's Commissions:

○ Research and Study:

- Women's commissions conduct **research and studies on issues relevant to women's rights and gender equality.**
- They gather data and information to support evidence-based policy recommendations.

○ Advocacy and Awareness:

- These commissions engage in **advocacy efforts to raise awareness about women's rights, gender equality, and related issues.**
- They **organize campaigns and events** to promote social awareness and change attitudes towards women.

○ Legal Aid and Support:

- Women's commissions often **provide legal aid and support to women who have faced discrimination, violence, or other rights violations.**
- They assist women in accessing justice and navigating legal processes.

○ Training and Capacity Building:

- Commissions offer **training programs and capacity-building initiatives** for various stakeholders, including law enforcement agencies, to sensitize them towards women's issues and improve their response to gender-based challenges.

○ Policy Recommendations:

- Based on their research and findings, women's commissions **make policy recommendations to the government to address systemic gender disparities** and create a more gender-inclusive society.

○ Collaboration and Partnerships:

- These commissions collaborate with various stakeholders, including NGOs, civil society organizations, and other government bodies, to **create a collective effort in promoting women's rights and gender equality.**

What are the Challenges

Faced by Women's Commissions?

➤ Lack of Adequate Resources and Autonomy:

- Women's commissions often face **financial constraints**, relying heavily on government funding, which can impact their independence and hinder their ability to function effectively.

➤ Political Interference:

- Being **nominated by the ruling government**, women's commissions **may face pressure to avoid cases** that could potentially reflect negatively on the government or its allies.
- This political interference can compromise their impartiality and commitment to women's rights.

➤ Limited Awareness and Accessibility:

- Many women, especially in rural and remote areas, are **unaware of the existence and role of women's commissions.**
- The lack of awareness hampers their ability to seek assistance and support from these commissions when faced with challenges.

What are the Controversies

Surrounding Women's Commissions?

➤ Manipur Incident Response:

- The NCW's response in Manipur case has been criticized for not acting swiftly and proactively.

➤ Mangalore Pub Attack Response:

- **In 2009**, when a group of women was assaulted in a pub in Mangalore, the **NCW's response was criticized as insensitive** and victim-blaming.
- The commission's **member blamed the victims for not protecting themselves** and questioned their reluctance to come forward.

➤ Handling of Sexual Harassment Allegations:

- The NCW's response to **sexual harassment allegations against a former Chief Justice of India** in 2019 raised concerns about its proactiveness and willingness to safeguard women's rights.

What are the Achievements of NCW?

➤ Strengthening of Law related to Women's Rights:

- The NCW has **helped strengthen the implementation of laws pertaining to women's rights**, such as the **Domestic Violence Act 2005** and the **Dowry Prohibition Act 1961.**

➤ Legal and Psychological Counselling:

- It has provided **legal and psychological counselling to victims of violence and sexual harassment.**

- **Sexual Harassment at Workplace:**
 - It has monitored and ensured the implementation of the **Sexual Harassment of Women at Workplace (Prevention, Prohibition and Redressal) Act, 2013**.
- **Gender Profiles:**
 - It has **prepared Gender Profiles** to assess the status of women and their empowerment in all the states and Union Territories except Lakshadweep.
- **Child Marriage and Other Legal Issues:**
 - It has **taken up the issue of child marriage, sponsored legal awareness programmes, Parivarik Mahila Lok Adalats** and reviewed laws such as **Dowry Prohibition Act, 1961, PNDT Act 1994, Indian Penal Code 1860 and the National Commission for Women Act, 1990** to make them more stringent and effective.
- **Workshops and Consultations:**
 - It has **organized workshops/consultations, constituted expert committees on economic empowerment of women**, conducted workshops/seminars for gender awareness and took up **publicity campaigns against female foeticide, violence against women etc.** in order to generate awareness in the society against these social evils.
- **Newsletter:**
 - It has regularly published a monthly newsletter called "**Rashtra Mahila**" in both Hindi and English.

What are the Strategies for Improving Women's Commissions?

- **Transparent Appointment Process:**
 - Adopt a **merit-based and transparent process for appointing chairpersons** and members of women's commissions. Involving **representatives from various stakeholders**, including the Opposition, judiciary, and civil society organizations, can help ensure impartiality.
- **Social Audit:**
 - Conduct regular **social audits of women's commissions by external agencies** to assess their performance, utilization of funds, and impact.
 - This will hold them accountable and provide insights for improvement.
- **Enhanced Field Visits:**
 - Encourage commission members and staff to conduct more **field visits, interact with women** in different regions, and understand their unique challenges and needs.
- **Awareness and Accessibility:**
 - Promote greater awareness of women's commissions among women, **particularly in remote areas**,

through various channels such as **helplines, online platforms, and mobile outreach**.

- **Empathy and Sensitivity Training:**
 - Provide **training to commission members and staff to develop empathy and sensitivity** towards women in distress. This will help create a supportive and victim-centered approach in dealing with cases.



India's Circular Revolution

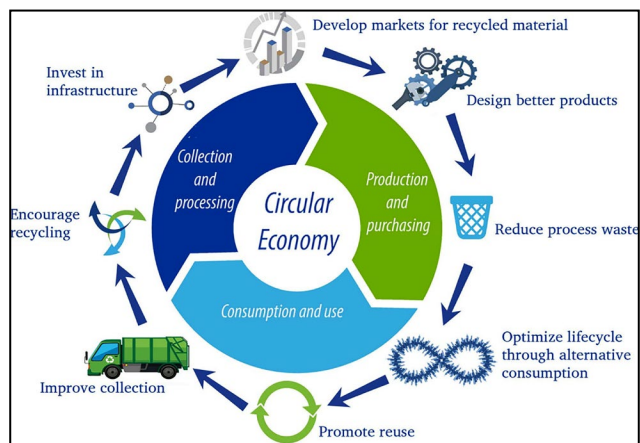
*This editorial is based on **Moving away from the 'take-make-dispose' model** which was published in The Hindu on 26/07/2023. It talks about the circular economy.*

Tag: Economy, GS Paper-2, Government Policies & Interventions, GS Paper-3, Environmental Pollution & Degradation, Growth & Development, Conservation

Resource efficiency and circular economy are powerful strategies that can effectively minimize dependence on **natural resources**, **curtail waste** and **encourage sustainable design practices**.

In the collective global endeavour to ensure sustainable development and realize the **Sustainable Development Goals**, decoupling **resource utilization from economic growth** is going to be the key. Recognising the need to switch from the 'take-make-dispose' to 'reduce-reuse-recycle' model, India has prioritized 'Resource Efficiency and Circular Economy' as one of the **three core themes** for deliberations in the **G-20** forum.

India has embraced four priority areas for the circular economy during its G-20 presidency: **circularity in the steel sector; Extended Producer Responsibility (EPR); circular bioeconomy and establishing an industry-led resource efficiency and circular economy industry coalition**. There is now heightened recognition of resource efficiency and circular economy strategies within the G-20 community.



Why is Circularity in the Steel Sector Important?

- **Crucial Material for Infrastructure and Industrial Growth:**
 - Steel is a **fundamental building material** for various sectors, including construction, manufacturing, and transportation.
 - As economies grow, the **demand for steel increases**, putting additional pressure on natural resources.
- **Energy Sector Emissions:**
 - Globally, **approximately 7% of energy sector emissions** can be attributed to iron and steel production.
 - The traditional linear production model leads to higher resource consumption and emissions, **contributing to climate change** and environmental degradation.
- **Reducing Waste Generation:**
 - Circular practices **aim to minimize waste generation and promote responsible waste management** throughout the steel industry.
 - By adopting a circular economy approach, the steel sector **can significantly reduce the environmental impact** associated with **waste disposal and landfilling**.
- **Promoting Sustainable Development Goals:**
 - Circular steel practices **align with several United Nations Sustainable Development Goals (SDGs)**, including **responsible consumption and production**, **climate action**, and partnerships for sustainable development.

What is EPR?

- EPR is a concept that holds **producers accountable for the environmental consequences** of their products from cradle to grave.
- It aims to **improve waste management** and ease the pressure on local authorities.
- It reflects environmental costs in product prices and motivates the creation of eco-friendly products.
- EPR applies to various waste streams, such as **plastic waste, e-waste, and battery waste**.
- The **E-Waste (Management and Handling) Rules, 2011** introduced EPR for the first time in India.

How can EPR Promote Circularity?

- **Encouraging Eco-Design and Sustainable Materials:**
 - To fulfil their extended responsibilities, **producers are incentivized to design products** that are **more durable, repairable, and recyclable**.

- Eco-design principles are integrated to ensure that products have a **longer lifespan and create less waste**.
- **Resource Conservation and Waste Reduction:**
 - EPR drives producers to reduce resource consumption, as they **bear the costs associated with waste management** and end-of-life treatment of their products.
 - As a result, they are encouraged to use recycled materials and explore more sustainable production processes, reducing the demand for virgin resources.
- **Promoting Recycling Infrastructure:**
 - Producers, as part of their responsibility, often **establish and support recycling infrastructure** to ensure that their products are effectively collected, sorted, and recycled at the end of their useful life.
 - This contributes to a **closed-loop system and promotes circularity** by keeping materials in circulation.
- **Incentivizing Take-Back and Recovery Programs:**
 - EPR schemes often require producers **to set up take-back and recovery programs**, where consumers can return their used products.
 - This practice ensures that products are properly managed after use, either through **recycling, refurbishment, or safe disposal**.
- **Creating Market for Recycled Materials:**
 - As producers are responsible for managing their products' end-of-life, they are **encouraged to incorporate recycled materials back into their production processes**.
 - This, in turn, stimulates the demand for recycled materials, **supporting a circular supply chain**.
- **Government and Industry Collaboration:**
 - EPR relies on **close collaboration** between governments, industries, and other stakeholders.
 - By working together, they can develop more effective and comprehensive EPR policies, enabling a smoother transition towards a circular economy.

What are the Benefits of a Circular Bioeconomy?

- **Reduced Dependence on Fossil Fuels:**
 - A circular bioeconomy relies on renewable biological resources, such as plants, algae, and agricultural waste, to produce bio-based products and bioenergy.
 - By using these resources instead of fossil fuels, **it helps reduce greenhouse gas emissions and mitigates climate change**.
- **Resource Efficiency and Conservation:**

- The circular bioeconomy follows the **principles of a closed-loop system**, where waste and by-products from one process become valuable resources for another.
- This efficient use of resources **minimizes waste generation and reduces pressure on natural resources**, leading to more sustainable resource management.
- **Sustainable Agriculture and Forestry:**
 - Circular bioeconomy practices encourage sustainable agricultural and forestry practices.
 - For example, using **crop residues for bioenergy or bioproducts** helps retain organic matter in the soil, improving soil health and fertility.
- **Green Job Creation:**
 - Transitioning to a circular bioeconomy creates new job opportunities across various sectors, including **agriculture, forestry, bio-based industries, research, and waste management**.
 - It boosts rural economies and contributes to social development.
- **Innovation and Technological Advancements:**
 - The circular bioeconomy drives innovation and encourages research and development in sustainable technologies and bioprocessing methods.
 - This fosters **technological advancements that can benefit various industries**.
- **Climate Change Mitigation:**
 - Sustainable bioenergy from biomass **can help replace fossil fuels** in various applications, thereby **reducing carbon emissions and combating climate change**.
 - The Government of India has been working towards the adoption of biofuels, biogas, and bio-compost through various schemes such as **Pradhan Mantri JI-VAN Yojana, GOBAR Dhan scheme, SATAT scheme**, etc.
- **Enhanced Food Security:**
 - The circular bioeconomy can **contribute to improved food security** by using **agricultural residues and waste as feedstock for bio-based products** instead of diverting them from food production.

What are the Challenges of the Circular Economy?

- **Infrastructure and Technology:**
 - Developing and **upgrading recycling and waste management infrastructure**, as well as adopting advanced technologies for resource recovery, can be a major challenge.

- **Behavioural Change:**
 - Encouraging a shift in **consumer behaviour towards responsible consumption, product reuse, and recycling** requires effective communication and behavioural change campaigns.
- **Regulatory Framework:**
 - Ensuring effective and harmonized **policies, regulations, and incentives to support circular economy** practices across different sectors is challenging.
- **Financial Investment:**
 - Circular economy projects often **require significant upfront investments**. Attracting private and public investment to fund these initiatives can be challenging.

What Should be the Way Forward?

- **Incorporate Data and Case Studies:**
 - To provide concrete **evidence and examples, consider incorporating data and case studies** showcasing specific circular economy projects and their outcomes in India.
- **Include Challenges and Solutions:**
 - Address challenges faced during the implementation of circular economy practices in India.
 - Include **potential solutions and strategies** that the country is adopting to overcome these challenges.
- **Involve Stakeholders' Perspectives:**
 - Consider **including statements or perspectives from government officials, industry leaders, environmental experts, and other stakeholders** involved in promoting circularity in India.
 - This will add depth and authenticity to the article.
- **Concise Policy Framework:**
 - Provide a **concise overview of the policy framework and regulatory measures** that India has put in place to promote resource efficiency and circular economy.

■■■

Flowing Towards Equilibrium: Inter-State Water Disputes

This editorial is based on "An equitable and long-lasting way to resolve inter-state river water disputes" which was published in Hindustan Times on 25/07/2023. It talks about the challenges related to inter-state water dispute resolution and how equitable sharing of resources can help in these resolving disputes.

Tag: Governance, GS Paper 2, GS Paper 3, Co-operative Federalism, Water Resources

In a world grappling with the critical importance of water resources for sustenance and development, **equitable access to adequate water availability remains a pressing concern.**

In a diverse and populous country like India, **inter-state river water disputes** have been a recurring challenge, fuelling tensions among regions and impeding progress. These disputes are not limited to politics but also **frequently spill over into social life and discourse.** All this makes it necessary to find a lasting solution to an issue that causes delays in water resources utilisation, cost overruns, and at times, law and order problems.

The equitable sharing of river waters is not only essential for addressing the immediate needs of communities and agriculture but also crucial for fostering **harmonious interstate relations and sustainable growth.**

What is the Scenario of Inter-State Water Disputes in India?

- **States in Dispute and Rivers:**
 - Recently, the **Pennaiyar river dispute between Karnataka and Tamil Nadu** was in the news. This matter was followed by the **Mahadayi river dispute**, a long-running water river dispute, between Karnataka and Goa.
 - Many other disputes such as the **Sutlej-Yamuna link canal**, **Krishna Water Dispute** (Andhra Pradesh, Telangana, Maharashtra and Karnataka), **Mahanadi Water Dispute** (Odisha and Chhattisgarh) and **Cauvery Water Dispute** (TN, Kerala, Karnataka and Puducherry) can be frequently seen in the news.
- **Constitutional Provisions related to Water:**
 - **State List** deals with water i.e., **water supply, irrigation, canal, drainage**, embankments, water storage and hydro power.
 - **Union List** empowers the **Union Govt to regulate/develop inter-state rivers/valleys** to the extent declared by Parliament.
 - As per **Article 262**, in case of **inter-state river water disputes (ISRWD)**, Parliament may by law provide:
 - For the adjudication of any dispute
 - For distribution/control of waters of/in any inter-State river/valley
 - That no court shall exercise jurisdiction in respect of any such dispute or complaint.
- **Inter-State Water Dispute (ISRWD) Act, 1956:** Under this act, the Centre **constitutes a tribunal to resolve ISRWDs** in case the disputed states are not able to resolve the issue by negotiations.
 - It was **amended in 2002** to include the major recommendations of the **Sarkaria Commission.**

Tribunal	Year of Formation	States Involved	Current Status	Awards
Krishna Water Disputes Tribunal II	2004	Andhra Pradesh, Maharashtra, Telangana & Karnataka	Tribunal Term extended	Award given 2013. Some matters subjudice
Mahanadi Water Disputes Tribunal	2018	Chhattisgarh & Odisha	Tribunal Exists	Matter under adjudication
Mahadayi Water Disputes Tribunal	2010	Karnataka, Goa & Maharashtra	Tribunal Exists	Award given 2018. Some matters pending
Ravi & Beas Water Tribunal	1986	Rajasthan, Haryana & Punjab	Tribunal term extended	Matter subjudice
Vansadhara Water Disputes Tribunal	2010	Odisha & Andhra Pradesh	Tribunal dissolved 2022	Yet to be published

What are the Challenges in Effective Functioning of ISRWD Tribunals?

- **Challenges in Creation:** A tribunal is constituted for adjudication of ISRWDs **only if the Centre agrees.**
 - The **absence of water data** that is acceptable to all parties currently makes it difficult to even set up a baseline for adjudication.
- **Issues in Present Mechanism:** The present mechanism of these tribunals is characterised by **long delays and non-compliance with the award** of an ISRWD Tribunal.
 - Water disputes such as the Godavari and Cauvery disputes in India have faced long delays in resolution.
 - Moreover, **frequently, parties are not satisfied** with the award and **approach the Supreme Court**, leading to another round of litigation.
- **Lack of Scientific Touch:** A widely held view is that adjudication is not the way to settle ISRWD. Many such disputes don't involve questions of law but **involve matters falling in the domain of hydrology, environment, engineering**, agriculture, climate, sociology, and so on.
 - Therefore, another aspect that these tribunals lack is **dealing with the disputes in a scientific manner.**
- **Other Challenges to Resolving ISRWDs:**
 - There are often challenges in data sharing and **discrepancies in data between disputed states.**
 - **Political parties often politicise these disputes** making it difficult to approach the issue objectively and find consensus-based solutions.
 - The increasing demand for water due to **population growth, urbanisation, and industrialisation**, intensifies **competition among states for water resources.**
 - Water is a highly emotive issue; **Protests and public demonstrations can add pressure on authorities** to take a rigid stance, hindering resolution processes.

Are there any Set of Rules at Global Level to Resolve Water Disputes?

➤ Helsinki Rules 1966:

- Article IV of the widely followed Helsinki Rules (1966) stated on the issue of **equitable utilisation of the waters of an international drainage basin**.
- As per the rules, "Each basin State is entitled, within its territory, to a reasonable and equitable share in the beneficial uses of the waters of an international drainage basin".
- The Helsinki Rules was, however, limited in their scope to international drainage basins and connected groundwater sources.

➤ Berlin Rules on Water Resources 2004:

- These rules superseded the Helsinki Rules and **emphasised appropriate management of all freshwater sources within the nations**; climate-related issues; minimisation of environmental harm; preference to meet vital human needs, and the individual's right of access to adequate quantity of safe drinking water, among others.

➤ Note:

- The **Supreme Court invoked the principles of the Helsinki Rules and Berlin Rules** along with the **Campione Rules** (recognising the surface water-groundwater connection) while passing the **judgement in 2018 on the long-drawn Cauvery water dispute**, arising out of Cauvery Water Tribunal Award 2007.

How can Equitable Distribution of Resources Resolve ISRWDs?

➤ Understanding Equitable Use of Resources:

- A key factor in finding a lasting and acceptable solution is **fair, equitable and reasonable use of natural resources**.
 - However, given there is no clear definition of fair, equitable and reasonable use, implementation of this concept can be difficult.
 - Such a use can be typically determined by the **assessment of a number of factors** that depend on history, present circumstances, and social conditions in the regions of interest.
- The equitable shares are to be decided in such a way that each party derives the largest benefit by using water and should **cause the minimum harm to others**.

➤ Assistance from Helsinki Rules: The Helsinki Rules describe in detail the relevant factors to be considered:

- The first set of factors includes the **drainage area within each basin state, hydrology and climate in the basin**. They will determine basin water resources within each state.

- The second set of factors determines the **utilisation of water by each party and covers the past and current utilisation**, and the **population dependent on the waters** of the basin in each basin state.

- These factors are to be considered along with the **relative costs of meeting the needs by alternative means**.

➤ Adequate Water Data:

- Scientific determination of equitable distribution can be difficult due to insufficient availability of data.
- As embedded in Berlin Rules 2004, the **openness of information related to water resources is critical** to achieving equity.
 - Therefore, the Government should take steps to **collect all relevant water resource data, curate it, and make it open**.

➤ Best Practices for Maximum Benefits:

- States need to be incentivised and encouraged to **adopt best water use practices to derive the largest benefit** of equitably using water while minimising harm to others.
 - **Over-utilisation of groundwater should be discouraged** as it leads to decline in base flows in rivers.
- States should be encouraged to increase **water use efficiency in agricultural, industrial and domestic sectors**.

➤ Involvement of Local People:

- At present, **people, the final stakeholders, have no involvement** in dispute resolution since the tribunals hear only the official representatives of the litigating states.
 - A mechanism should be devised to **consider inputs from civil society in a transparent way**.
- Good governance in sustainable water management can be best achieved by **understanding gender gaps and addressing the specific barriers**.

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The Persistence and Perils of Caste Based Violence in India

*This editorial is based on **Caste has no place in a modern democracy** which was published in Hindustan Times on 25/07/2023. It talks about the issues of caste-based violence in India.*

Tag: Indian Society, GS Paper-1, Diversity of India, Poverty and Developmental Issues, GS Paper-2, Welfare Schemes, Issues Relating to Development, Human Resource, GS Paper-3, Planning, Employment, Inclusive Growth, Land Reforms

Caste-based violence in India is a **form of discrimination and oppression** that targets people belonging to Scheduled Castes (SCs) and Scheduled Tribes (STs), who are historically marginalized and disadvantaged groups in Indian society.

Despite the constitutional safeguards and special legislation, such as the **Scheduled Castes and Scheduled Tribes (Prevention of Atrocities) Act, 1989** being in place, caste-based crimes continue to occur in various forms and regions, violating the **fundamental** and **human rights** of millions of people.

How Prevalent are Caste-based Crimes in India?

➤ **Caste-Based Crimes in India:**

- Caste-based crimes can include **physical assault, murder, rape, sexual harassment, torture, arson, social boycott, economic exploitation, land grabbing, forced displacement**, and other forms of humiliation and violence.
- According to the Annual Crime in India Report 2019 published by the **National Crimes Records Bureau**, crime against SCs and STs has recorded an increase of over 7% and 26% respectively in the year 2019.
 - The same report also produced that **88 rape cases are recorded every day in India. Some of the cases are related to caste-based crimes.**

➤ **Regional Differences in Crime Rates and Charge Sheets:**

- Caste-based crimes are also **influenced by regional specificities and differences** in the strategies employed by various states to fight them.
- For example, **Madhya Pradesh (MP) had the highest crime rate against SCs in 2021.**
 - The state also had the **highest crime rate against SCs in 2020** and was ranked second (behind Rajasthan) in 2019.
- But data also showed that **the rate at which charge sheets were filed was higher in MP than in most Indian states.**
 - Its neighbour, Rajasthan, was far lower on this aspect, highlighting that state police needed to do a lot more.

What are the Causes of Caste-Based Crimes in India?

➤ **Caste System and Hierarchical Structure:**

- The caste system, an **ancient social stratification based on descent and occupation**, creates a rigid hierarchical structure where individuals are categorized into specific castes.

- This system **fosters a sense of superiority among upper castes** and a feeling of inferiority among lower castes, leading to discrimination and violence against the latter.

➤ **Social Norms and Cultural Beliefs:**

- Social norms and cultural beliefs, often passed down through generations, reinforce the notion of caste-based superiority and inferiority.
- These **norms normalize discriminatory attitudes and practices**, making it challenging to break free from caste-based violence.

➤ **Economic Exploitation:**

- Caste-based violence is sometimes driven by economic motives. Lower caste individuals may be **subjected to exploitation, forced labour, and economic oppression** by dominant caste groups, leading to conflicts and violence.

➤ **Political Power Struggles:**

- Caste-based violence is also linked to political power struggles. Dominant caste groups may **use violence to suppress the political aspirations and representation** of lower caste individuals, maintaining their own dominance and influence.

➤ **Inter-Caste Marriages:**

- Inter-caste marriages, challenging the traditional caste boundaries, are sometimes **met with hostility and violence** from conservative sections of society, seeking to protect their caste purity.

➤ **Lack of Implementation of Laws:**

- Despite legal protections, the effective implementation of laws against caste-based violence remains a challenge in some regions, leading to a culture of impunity for the perpetrators.

What are the Implications of Caste-Based Crimes?

➤ **Human Rights Violations:**

- Caste-based violence results in severe human rights violations, including the **right to life, dignity, equality, and liberty.**
- Victims of such violence suffer physical and psychological harm, leading to **trauma and long-term emotional distress.**

➤ **Social Fragmentation:**

- Caste-based violence **deepens social divisions and creates animosity among different caste groups.**
- It **hampers social cohesion** and undermines the efforts towards building a harmonious and inclusive society.

➤ **Fear and Insecurity:**

- Caste-based violence creates a climate of fear and insecurity among marginalized communities.
- The fear of **violence and discrimination** can lead to **self-censorship** and restrict the freedom of expression and movement of affected individuals.
- **Obstacles to Development and Empowerment:**
 - Caste-based violence **hinders the development and empowerment** of marginalized communities.
 - It limits their access to **education, healthcare, and economic opportunities**, preventing them from realizing their full potential.
- **Loss of Trust in Institutions:**
 - Caste-based violence erodes trust in state institutions, law enforcement agencies, and the justice system. Victims and their communities may be **hesitant to seek justice or report incidents** due to fear of further victimization or lack of faith in the system.
- **International Reputation:**
 - The persistence of caste-based violence **negatively impacts India's international reputation** as a democratic and progressive nation.
 - It raises concerns among the global community about the prevalence of discrimination and violence based on caste identities.

What are the Safeguards

Provided against Caste Based Discrimination?

- **Constitutional Provisions:**
 - **Article 15:** The State shall not discriminate against any citizen on the basis of **religion, race, caste, sex, place of birth or any of them**.
 - **Article 16:** No citizen shall be disqualified for any office under the State on the basis of **religion, race, caste, sex, descent, place of birth or any of them**.
 - **Article 335:** Provides that the **claims of the members of the SCs/STs** shall be taken into account, along with the maintenance of efficiency of administration, in the making of appointments to services and posts in connection with the affairs of the Union or of a State.
 - **Article 330 and Article 332:** Reservation of seats for SCs/STs in the **Lok Sabha and State legislative assemblies**.
- **Constitutional Bodies:**
 - **National Commission for Scheduled Castes.**
 - **National Commission for Scheduled Tribes.**
- **Statutory Provision:**
 - **Scheduled Castes and the Scheduled Tribes (Prevention of Atrocities) Amendment Act, 2018.**

What are the Possible Solutions to Prevent and Redress Caste-Based Crimes in India?

- **Strengthening Implementation of Laws:**
 - **SC/ST Act, 1989; Protection of Civil Rights Act, 1955; Prohibition of Employment as Manual Scavengers and their Rehabilitation Act, 2013.**
- **Enhancing State Institutions:**
 - Police, Judiciary, Education, Health, and Welfare sectors to prevent, investigate, prosecute, punish, and rehabilitate offenders.
- **Promoting Awareness and Sensitization:**
 - Among all stakeholders, including upper castes, lower castes, civil society organizations, media, academia, religious leaders, and political parties.
- **Empowering SCs and STs:**
 - Through education, employment, land rights, political representation, **social mobilization, legal aid**, and counselling services.
- **Fostering Dialogue and Reconciliation:**
 - Building trust and solidarity, challenging stereotypes and prejudices, and **promoting respect for diversity and human dignity**.

■■■

Peril of Unplanned Urbanisation

*This editorial is based on **Smart ideas for big cities** which was published in **The Indian Express** on 31/07/2023. It talks about **unplanned urbanisation issues in India**.*

Tag: Indian Society, GS Paper-1, Urbanization, Population and Associated Issues, GS Paper-3, Disaster Management, Environmental Pollution & Degradation

Urban flooding has become more frequent and severe in major cities across India in recent times. Cities like Delhi, Ahmedabad, Mumbai, Hyderabad, Srinagar, Chennai, and Bengaluru have experienced flooding during heavy rainfall. As a result, urban residents are facing problems like waterlogging and traffic jams, causing damage and disruption to their daily lives.

- The repeated and growing problems of urban floods is a systemic problem and the root cause of this is prioritising economic gains over everything else.

What is Urban Flooding?

- **Urban Flooding** is an inundation of land in a constructed setting, particularly in densely populated areas, caused by rainfall overwhelming the capacity of drainage systems.

- Urban flooding is significantly different from rural flooding as urbanization leads to developed catchments, which increases the **flood peaks from 1.8 to 8 times and flood volumes by up to 6 times**.
 - Consequently, flooding occurs very quickly due to faster flow times (in a matter of minutes)

What are the Causes of the Rise in Urban Flooding?

- **Climate Change:**
 - Increases unpredictable weather patterns, leading to intense rainfall, heatwaves, and cyclones.
- **Unplanned Urban Growth:**
 - Rapid expansion of unplanned illegal activities over natural resources makes cities vulnerable.
 - With unplanned urbanisation and a rise in population, there has been a rise in construction (especially in low-lying areas) and, consequently, a loss of water bodies.
- **Human Encroachment:**
 - Building on active flood channels leads to urban flooding.

- With cities getting more concretised (via pavements, roads, and settlements), rainwater percolation has reduced, leading to a rise in stormwater run-off.
- **Inadequate Flood Management:**
 - Many cities lack proper flood control practices. For example, urban India frequently experiences waterlogging, highlighting municipal unpreparedness.
 - Most Indian cities are situated beside a river, with extensive floodplains and wetlands.
 - India has **lost 40 per cent of its wetlands** in the past 30 years.
 - For instance, Baroda lost 30 per cent of its wetlands between 2005 and 2018.
 - Delhi had 1,000 waterbodies in 1997, but now has just 700. With such a loss of natural “blue infrastructure”, flooding risks have increased.
 - Delhi has seen four major flooding events between 2005 and 2023.
- **Waste Disposal Issues:**
 - Improper disposal of solid waste within drainage systems worsens the problem of flooding.

What causes urban floods?

Meteorological factors

- Unprecedented rainfall
- Influence of urban microclimate

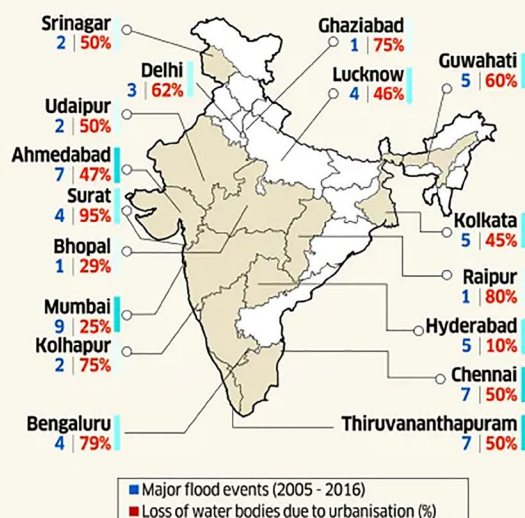
Hydrological factors

- Change in the course of rivers
- Presence of high tide
- Synchronisation of runoffs of various parts of the watershed

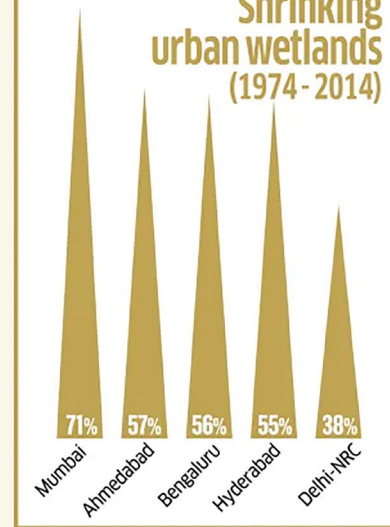
Human factors

- Rapid urbanisation and deforestation
- Loss of waterbodies
- Encroachment of floodplains and low lying areas
- Damage to drainage channels
- Buildings designed without regard to flood risk
- Lack of water conservation infrastructure

Flooding occurs as waterbodies disappear



Shrinking urban wetlands (1974-2014)



CITIES AND THE YEAR THEY SAW MAJOR FLOODS

Mumbai: 2005 - Present; Bengaluru: 2005, 2007, 2015, 2020; Chennai: 2002, 2004, 2005, 2006, 2007, 2015; Ahmedabad: 2017; Kolkata: 2007, 2017; Hyderabad: 2020

What are the Challenges Urban Areas Face Due to the Rise in Urban Flooding?

- **Infrastructure Damage:**
 - Heavy rainfall and flooding can damage buildings and roads, disrupting daily life. Example: frequent waterlogging in Indian cities.
- **Disruption of transportation:**
 - Flooded roads and public transportation systems can lead to traffic congestion and disruptions, making

- it difficult for people to move around the city.
- **Emergency Response:**
 - Unexpected disasters strain city resources and redirect budgets from growth to recovery.
- **Pollution Issues:**
 - Large amounts of contaminated runoff can overwhelm urban drainage systems, causing flash floods.
- **Public health risks:**

- Urban flooding can lead to waterborne diseases, contaminated drinking water, and the spread of pathogens.
- **Food, Water, and Energy Security:**
 - Natural disasters threaten these basic needs, especially in coastal cities.
- **Social inequality:**
 - Urban flooding often disproportionately affects vulnerable populations, including low-income communities and marginalized groups.

What are the Gaps in India's Urban Planning?

- **Neglect of water body mapping:**
 - The country lacks comprehensive mapping and documentation of surface water bodies, despite being mentioned in the National Database for Mapping Attributes. The absence of such information hampers effective flood management and urban planning.
- **Inadequate early-warning system:**
 - The failure to implement a reliable early-warning system was evident during the devastating floods in Uttarakhand in 2013.
 - The National Disaster Management Authority (NDMA) couldn't effectively inform people about the impending floods and landslides, leading to a lack of timely evacuation measures.
- **Reactive rather than proactive approach:**
 - Urban planning authorities and government agencies only seem to recognize the importance of disaster preparedness after facing significant disasters like the Chennai Floods in 2015 and **Kerala Floods in 2018**.
- **Limited local bodies' preparedness:**
 - Local governments often lack sufficient training, equipment, and facilities to handle disaster situations efficiently. The onus of disaster mitigation predominantly falls on NDMA/SDMA, highlighting the need for stronger local-level response capabilities.
- **Misuse of disaster funds:**
 - Funds allocated to **the National Disaster Response Force (NDRF)** and **State Disaster Response Force (SDRF)** for disaster management are sometimes misutilized for expenses unrelated to **disaster management**. This financial indiscipline raises concerns about the efficient utilization of resources.

What Should be Done?

- **Conduct Studies and Develop Management Plans:**

- Conduct studies in all cities to understand catchment areas and flooding risks associated with urban water bodies and land use.
- **Develop short, medium, and long-term measures to rejuvenate water bodies;**
 - Define lake and river management plans and involve local citizens in upkeep and removal of encroachments.
 - Utilize **Geographic Information Systems (GIS)** to tag local water bodies, track encroachments, and understand seasonality.
- **Invest in Early Warning Systems and Data Integration:**
 - Invest in more early warning systems, including Doppler radar, for real-time updates on changing weather patterns.
 - Integrate local rainfall data with the **Central Water Commission** and regional flood control efforts.
 - Conduct simulations for flooding hotspots, especially as rainfall patterns change.
- **Develop City-Wide Databases and Disaster Relief Mechanisms:**
 - Invest in city-wide databases to provide immediate relief in the event of a flooding-related disaster.
 - Revamp and Expand Drainage and Stormwater Networks:
- **Develop Drainage Master Plans for Cities:**
 - Survey existing pipelines (drain or stormwater) and identify water-logging locations.
- **Improve Urban Planning and Coordination:**
 - Improve coordination between agencies and institutions involved in urban water management.
 - Raise awareness about wetland and water body conservation.
 - Develop a well-defined urban water policy.
 - Empower regulatory bodies like the **Central Wetland Regulatory Authority** with statutory powers.
 - Encourage civic participation in urban water management.
- **Follow the recommendation by the Draft New National Water Policy :**
 - There is a need for renewed thrust on protection and revival of traditional local water bodies in both urban and rural areas.
 - These water bodies would form part of **urban blue-green infrastructure** for improved water levels and quality, as also flood mitigation, through specifically curated infrastructure such as rain gardens and bioswales, urban parks, green roofs and green walls etc.

Examples of Successful**Initiatives to Check Urban Flooding:**

- **Mangalore City Corporation (MCC)** established wastewater treatment plants with end-user linkages to address limited and erratic water supply for industries.
- **Kaikondrahalli Lake in Bengaluru** underwent desilting, removal of vegetation, and increasing its depth and storage capacity by 54% to combat sewage inflow and eutrophication.
- Some countries are experimenting with concept of **Sponge Cities**.
 - Sponge City is a type of city which is designed in such a way that it acts like a **sponge for rainwater**. The water is absorbed and **allowed to naturally filter through the soil to reach the aquifers**. The aquifer recharge helps fulfil the water needs of the city.

**What Initiatives are Taken****by Government of India for Urban Development?**

- **Smart Cities Mission.**
- **Atal Mission for Urban Rejuvenation and Urban Transformation (AMRUT).**
- **Pradhan Mantri Awas Yojana-Urban (PMAY-U).**
- **Integrated Command and Control Centres (ICCCs).**
- **Climate Smart Cities Assessment Framework 2.0.**
- **TULIP-The Urban Learning Internship Program.**

Conclusion:

- The Ministry of Earth Sciences' Climate Change Assessment Report (2020) highlights a concerning trend of increased heavy rainfall frequencies, leading to heightened flood risk across India, especially in urban areas.
- Urgent action is imperative to address this issue effectively. Successfully tackling the challenge of urban floods demands a collaborative approach involving the Union, State, and Local Governments, as well as active participation from citizens.

Forest Conservation Conundrum

*This editorial is based on **Many of the Above** which was published in The Indian Express on 28/07/2023. It talks about the issues with Forest Conservation (Amendment) Bill.*

Tag: Governance, GS Paper - 2, GS Paper - 3, Conservation, Issues Relating to Development, Management of Social Sector/Services, Forest Resources

The **Forest Conservation (Amendment) Bill** passed in the **Lok Sabha**. The bill introduces stricter conditions, limiting the scope of protected areas to land declared or notified as a forest under the **Indian Forest Act, 1927**, or any other law. The departure from the previous, more lenient definition of forests may put vast tracts of forests at risk and exclude unclassified forests that make up around **15% of India's total forest cover**. While the government assures that it won't violate the Forest Rights Act, concerns remain about the rights of forest-dependent communities in this context.

What is the Issue with the Proposed Amendment?

- **Limiting the Definition of Forest:**
 - The amendment proposes to **limit the definition of forest to areas** recorded as "forest" in government records **from October 25, 1980, onwards**. This amendment **seeks to redefine the scope of what is considered a forest, excluding areas not recorded as such after the specified date.**
- **Invalidating the Supreme Court's 1996 Judgment:**
 - The amendment will have the effect of invalidating the **Supreme Court's** landmark 1996 judgment in **T N Godavarman vs. Union of India**, which had **expanded the meaning of forest** to include all natural ecosystems, beyond the confines of government records.
- **Loss of Legal Protection for Vast Forest Areas:**
 - As a consequence of the amendment, **thousands of square kilometres of forests, constituting approximately 27.62% of India's total forest cover, will lose their legal protection.**
 - These areas **lie outside the boundaries of Recorded Forest Areas.**

What is the Status of Forest Loss in India?

- **Extent of Forest Loss:**
 - According to a **report by the Centre for Science and Environment (CSE)**, India has witnessed a **staggering loss of over 31,000 square kilometres of forests between 2001 and 2018.**

- Various developmental activities, such as mining, dams, roads, and urbanization, have contributed to this extensive forest degradation.
- **India's Global Ranking:**
 - The CSE report highlights that **India ranks among the top 10 countries in the world in terms of forest loss.**
 - This alarming ranking emphasizes the severity of the issue and its potential implications on ecological stability and biodiversity.
- **Increasing Forest Loss Trends:**
 - Over the past two decades, **forest loss has seen an alarming surge.**
 - This escalation in **deforestation poses serious threats to ecological balance**, wildlife habitats, and climate change mitigation efforts.

What are the Impacts of the Proposed Amendment?

- **Reduction in Protected Areas:**
 - The stricter definition of forests under the amendment **may lead to the declassification** of many areas that were previously considered as forests.
 - This could **result in a reduction in the number of protected areas**, leaving vast tracts of forests vulnerable to encroachment and development.
- **Loss of Biodiversity and Ecosystem Services:**
 - With fewer areas under legal protection, there is a **higher risk of habitat destruction, leading to loss of biodiversity** and the services that natural ecosystems provide, such as water security, carbon sequestration, and climate resilience.
- **Environmental Degradation:**
 - Weakened forest conservation measures **may open the door to unsustainable exploitation of natural resources**, such as logging, mining, and other activities that can lead to environmental degradation and irreversible damage to ecosystems.
- **Climate Change Implications:**
 - Forests play a crucial role in mitigating climate change by sequestering carbon.
 - Reduced forest protection **may result in increased deforestation and higher greenhouse gas emissions**, impacting India's efforts to combat climate change.
- **Loss of Ecological Connectivity:**
 - Stricter criteria for defining forests may **disrupt ecological connectivity and wildlife corridors**, hindering the movement of species and further fragmenting habitats.

Challenges in Conservation Efforts:

- Environmentalists and conservationists may face challenges in safeguarding ecosystems and wildlife, as the amendment's limitations may hinder their efforts to protect vulnerable areas.
 - The report by the **Comptroller and Auditor General** highlights that many zoos in India are **not complying with prescribed norms** and standards set by the **Central Zoo Authority**.
 - Problems such as inadequate **animal enclosures, poor waste management, and insufficient veterinary facilities** raise concerns about animal welfare and the environmental impact of zoos.

Challenges in Ecotourism:

- The study by the **Ashoka Trust for Research in Ecology and the Environment (ATREE)** reveals that ecotourism activities in protected areas can lead to increased pressure on natural resources, conflicts with local communities, loss of traditional livelihoods, cultural erosion, and reduced wildlife sightings.
- These challenges underscore the need for proper regulation and oversight in ecotourism practices.

What are the Implications for Forest-Dwelling Communities?

Violation of Rights:

- Exempting a large number of projects from the clearance process means that forest-dwelling people will **no longer be consulted.**
- This **violates the Scheduled Tribes and Other Traditional Forest Dwellers (Recognition of Forest Rights) Act, 2006**, which mandates obtaining free, prior, and informed **consent from local communities through their gram sabhas.**
- By disregarding this legal requirement, the **rights of forest-dwelling communities are undermined.**

Social Unrest and Conflict:

- The denial or violation of their rights **can lead to social unrest and conflict within these communities** as they strive to protect their land, livelihoods, and cultural heritage.

Inadequate Recognition of Forest Rights:

- The report by the **Ministry of Tribal Affairs (MoTA)** indicates that **only a small percentage of claims filed by forest-dwelling communities under the Forest Rights Act have been approved.**
- This **hinders their ability to exercise their rights over forest resources** and leads to **insecurity and vulnerability.**

➤ **Eviction and Harassment:**

- Denial or violation of forest rights has **led to cases of eviction, displacement, harassment, and violence** against forest-dwelling communities.
- This **further marginalizes already vulnerable populations** and disrupts their traditional way of life.

How will India's Ecological

Security and Commitments be Compromised?

➤ **Contradiction with Forest Conservation Act's Preamble:**

- The proposed amendments to the Forest Conservation Act **go against its stated purpose** of providing **for the conservation of forests** and matters connected therewith.
- Instead of promoting conservation, the amendments may lead to the degradation of forest ecosystems.

➤ **Contravention of National and International Commitments:**

- The amendments are in conflict with India's **national and international commitments to protect its environment** and biodiversity.
 - Commitments like the **National Forest Policy (1988)**, **National Biodiversity Action Plan (2008)**, **National Action Plan on Climate Change (2008)**, **Convention on Biological Diversity (1992)**, **UN Framework Convention on Climate Change (1992)**, and **Paris Agreement (2015)** prioritize conservation and sustainable management of natural resources.

➤ **Impact on Ecological Security and National Security:**

- The **proposed amendments** can compromise India's ecological security by eroding its natural capital.
- This can **lead to reduced resilience to climate change impacts** and jeopardize social harmony.
- Neglecting ecological preservation can have cascading effects on various aspects of national security.

➤ **Threats to Biodiversity:**

- India is recognized as one of the **17 megadiverse countries globally**, hosting **approximately 8% of the world's biodiversity**.
 - The nation's rich biodiversity contributes to its ecological resilience and is a valuable global heritage.

- The **IPBES report (Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services)** highlights that India is facing a biodiversity crisis, with **approximately 25% of its species threatened** with extinction due to multiple factors such as **habitat loss, overexploitation, pollution, invasive species, climate change**, and human-wildlife conflict.

What Should be the

Way Forward for Proposed Amendment?

➤ **Conservation and Sustainable Management:**

- Instead of weakening forest conservation, the government **should focus on effective implementation and enforcement** of existing laws and policies.
 - Strengthening the institutional and regulatory mechanisms for environmental governance, such as the **National Green Tribunal**, **National Biodiversity Authority**, and **Forest Advisory Committee**, is crucial.

➤ **Scientific Approach:**

- Enhancing the scientific and technical capacity for environmental assessment and monitoring, using modern tools like **remote sensing, geographic information systems, satellite imagery, drones, and citizen science**, can aid in informed decision-making and conservation efforts.

➤ **Community Participation:**

- Promoting participatory and **community-based approaches for forest** and wildlife management is vital.
- Involving local communities in **decision-making, planning, and benefit-sharing ensures the protection of their rights** and fosters a sense of ownership and responsibility towards conservation.

➤ **Integrated Approach:**

- Adopting an **integrated and landscape-level approach** for conservation and development is essential.
- Identifying and prioritizing **critical wildlife habitats, corridors, and buffer zones**, while ensuring ecological connectivity and compatibility among different land uses, can balance developmental needs with ecological preservation.



Drishti Mains Questions

1. The RBI's liquidity management dilemma is the challenge of balancing its objectives of price stability, growth and financial stability while dealing with the surplus liquidity situation. Comment.
2. Discuss India's scope and major challenges in becoming a global manufacturing hub in Electronics System Design and Manufacturing (ESDM) sector.
3. How can India catch up with China's economy despite all the obstacles the Indian economy has faced till now?
4. Indian States have shown remarkable fiscal consolidation after the Covid-19 pandemic, but they still face fiscal challenges in containing their revenue deficits. Discuss the causes and consequences of revenue deficits for Indian States.
5. Discuss to what extent has the Har Ghar Jal Scheme been effective in addressing the water challenges faced by rural areas in India, and what are the key strategies employed by the scheme to ensure sustainable water connectivity?
6. Analyse the challenges and solutions for unlocking India's potential through its young population.
7. How does internationalisation of the rupee affect India's economic and strategic interests in the region and beyond?
8. "National Research Foundation will promote multi-institutional, inter-disciplinary research and funding to address prioritized areas of India's development". Comment
9. Analyse the causes and implications of the recent heavy rainfall and flooding in North India.
10. Discuss the significance of India's engagement with European security in the context of the 25th-anniversary celebration of Indo-French strategic partnership. What are the challenges and opportunities for India in this regard?
11. Discuss the challenges and limitations faced by Finance Commissions in fulfilling their mandate, especially in the context of a dynamic and complex political economy environment.
12. Considering the uncertainties of the global market, discuss the potential implications of limited access to critical minerals on India's ability to achieve an accelerated transition towards clean energy.
13. What are the key challenges surrounding the concept of constitutional morality, and how can they be addressed to ensure its effective implementation in a democratic society?
14. Evaluate the role of structural and non-structural methods in flood management in India. What are the challenges and opportunities for water conservation in the context of climate change?
15. Evaluate the merits and demerits of approval voting in the context of India's political diversity and democracy.
16. The integration of Primary Agricultural Credit Societies (PACS) and Farmer Producer Organizations (FPOs) can create a hybrid model that leverages the strengths of both institutions and provides a holistic solution for the farmers. Critically analyze.
17. India needs a higher growth rate to eradicate the poverty in the country. In this light discuss the reasons behind poverty and suggest ways to address it.

Drishti Mains Questions

18. "France, which has valued independent foreign policy, is India's natural partner in building the new coalitions for an uncertain era." Comment.
19. As India strives to increase the share of manufacturing in its economy, it must expand mineral production through policy reforms that better assist in exploring India's mining potential. Discuss.
20. How can India enhance the role of the rupee in global trade and reduce its dependency on the US dollar?
21. Critically evaluate the functioning and effectiveness of women's commissions in India.
22. Circular economy has emerged as key solutions in collective efforts in tackling prevailing challenges. Comment
23. Discuss the key challenges in resolving inter-state water disputes and assess the importance of equitable use of water resources for addressing this issue.
24. Caste-based violence is a serious social problem that violates the constitutional rights and human dignity of the victims. Discuss the causes and consequences of caste-based violence in India.
25. Critically examine the implications of the proposed amendments to the Forest (Conservation) Act, 1980.
26. Discuss the issues and various causes of urban floods in India. Give some measures to prevent urban flooding in India.