

Monthly Editorial Consolidation



1st May to 31st May 2022

Content

•	India's Semiconductor Diplomacy	3
•	MSMEs and Global Value Chains	4
•	Europe To The Centre	6
•	A New Foreign Trade Policy for India	8
•	Dealing with the Power Crisis	. 10
•	Preventing Death Penalty	. 11
•	India's Universities: A Rough Ride	. 13
•	The Making of A Manufacturing Hub	. 15
•	Containing Rising Inflation	. 17
•	A Long Term Strategy to Tackle Heat Waves	. 19
•	Promoting Agri-tourism	. 21
•	An Opportunity for Collaboration in South Asia	. 23
•	Democracy and Sedition	. 25
•	Ensuring Mineral Availability for EVs	. 27
•	Social Media and The Menace of False Information	. 28
•	The Inherent Benefits of Carbon Farming	. 30
•	GST and Fiscal Federalism	. 32
•	Connecting Nature With Humanity	. 33
•	Sustaining FDI Inflows	. 35
•	Achieving ESG Compliance	. 37
•	Food Security & Current Scenarios	. 38
•	Women and Nutrition	. 40
•	IPEF and Opportunities for India	. 43
•	Digitisation of Indian Judiciary	. 44
•	Building A Stronger BRICS	. 46
	tabilitati na Oncortino	40

India's **Semiconductor Diplomacy**

This editorial is based on "Blueprint for Semicon Diplomacy" which was published in Indian Express on 30/04/2022. It talks about the significance of semiconductors and suggests a Semicon Diplomacy Action Plan for becoming self-sufficient in semiconductor chip manufacturing.

Tags: Indian Economy, GS Paper 2, Government Policies & Interventions, Effect of Policies & Politics of Countries on India's Interests, Look East to Act East, GS Paper 3, Growth & Development, Indigenization of Technology

Semiconductors are the basic building blocks that serve as the heart and brain of all modern electronics. These semiconductor chips are now an integral part of contemporary automobiles, household gadgets and essential medical devices such as ECG machines.

India in the last few years has put its special focus towards the domestic manufacturing of semiconductor chips in India. Although a plethora of initiatives in this regard are appreciable, it is not sufficient. To become self-sufficient in chip manufacturing India needs a Semiconductor Diplomacy Action Plan.

Why is the Significance of Semiconductors?

- > Semiconductor chips are the lifeblood of the modern information age. They enable electronic products to compute and control actions that simplify our lives.
- The process of making the meticulous semiconductor chips is an excellent example of peacetime global cooperation.
 - o For instance, it would not be difficult to imagine that the chip in the devices that we use are made by a Japanese engineer working on Dutch machinery in an American foundry in Taiwan to produce wafers which were shipped to Malaysia for packaging before being sent to India as a finished product.
- These semiconductor chips are the drivers for ICT (Information and Communication Technologies) development and one of the key reasons for the current flattening of the world.
- Semiconductors are used in critical infrastructures such as communication, power transmission etc., that have implications for national security.
- Development of the semiconductor and display ecosystem will have a multiplier effect across different sectors of the economy with deeper integration to the global value chain.

Where does India Stand in the Growth Story of the Semiconductor Market?

- India currently imports all chips and the market is estimated to touch \$100 billion by 2025 from \$24 billion now. However, for the domestic manufacturing of semiconductor chips, India has recently launched several initiatives:
 - The Union Cabinet has allocated an amount of ₹76,000 crore for supporting the development of a 'semiconductors and display manufacturing ecosystem'.
 - India has also launched the Scheme for Promotion of Manufacturing of Electronic Components and Semiconductors (SPECS) for manufacturing of electronics components and semiconductors.
 - The MeitY also launched the Design Linked Incentive (DLI) Scheme to nurture at least 20 domestic companies involved in semiconductor design and facilitate them to achieve turnover of more than Rs. 1500 Crore in the next 5 years.
- Considering that the global semiconductor market is projected to be \$1.2 trillion by 2030, India needs to be well-positioned to capture it.
 - o The recently announced **Semicon India programme** which provides \$10 bn fiscal support and other non-fiscal measures is a step in the right direction.
 - Due to the USA's allegations on China for worsening Covid-19 and India-China conflict and recent developments because of it, numerous multinational companies (MNCs) are shifting their production out of China.
 - This is the right opportunity to establish India as the right choice for setting up production houses for semicon chips.

What are the Issues Regarding **Domestic Manufacturing of Semiconductors?**

- **Dominance of Certain Countries:** The semiconductor manufacturing capacities are concentrated in a few **geographies.** Nearly all leading edge (sub 10nm) semiconductor manufacturing capacity is limited to Taiwan and South Korea, with nearly 92% located in the former.
 - o Further, 75% of the semiconductor manufacturing capacity is concentrated in East Asia and China.
 - The concentration of capacities poses many challenges, leading several countries to be vulnerable to a few.
 - O The short point is that there could be moments of stress and conflict between India and the major powers.
 - In order to preserve the capacity to stay autonomous, India needs not just smart alliances but also indigenous capability.

- Pursuing Western Companies: Although India has a decent chip design talent, it never built up chip fab capacity. It would also require convincing western companies to set up advance silicon fabs in India.
 - However, the coming of several semiconductor fabs to India is not sufficient. It would also require maintaining a balance between pursuing globalisation in this field while ensuring that the vision of Atma Nirbhar Bharat is not undermined.

How India's Semiconductor Diplomacy can Help Overcome This Problem?

- Seizing the Recent Opportunities: The current decade presents a unique opportunity to India as;
 - Companies are looking to diversify their supply chain and for alternatives to their bases in China.
 - The chip shortages due to Covid-19 have hit automakers with a revenue loss of \$110 bn in 2021.
 - The Russia-Ukraine conflict and its implications for raw material supplies for the semiconductor value chain has also poised chipmakers to invest in strengthening the semicon supply chain.
 - India must seize this opportunity and become an attractive alternative destination for semiconductor manufacturing.
- Conceptualising A Semicon Diplomacy Action Plan: Placing semicon diplomacy at the heart of India's foreign policy is essential both strategically and economically.
 - The establishment of the value chain for semiconductors would ensure a multiplier effect on the entire economy.
 - o Further, since electronics items form one of the most highly imported items after oil and petroleum products, domestic production would be saving forex and reducing the balance of payments, especially vis a vis China.
- Merging Semicon Diplomacy with Act East Policy: Semicon diplomacy is pivotal to India's Act East Policy, which aims to build resilient ties in the Asia Pacific region.
 - Considering that the semiconductor manufacturing and testing bases are heavily concentrated in East Asia, the Act East policy provides an opportunity to connect and strengthen ties with key players in the region.
 - At the same time, keeping an eye on the larger vision - frequent technological exchanges between a regional bloc like ASEAN via tracks in forums like the East Asia Summit and the ASEAN regional forum will also be beneficial.

- Potential of QUAD in Semicon Diplomacy: One of the ways of leveraging semicon diplomacy is increasing multilateral and bilateral cooperation. A key institution with immense potential in this regard is the Quad.
 - Australia, being rich in raw materials required for semiconductors, can be an important supplier to fill in India's deficits.
 - The US and Japan can be leveraged for capacity building and their advanced semiconductor technology in logic and memory segments.
 - The Quad Semiconductor Supply Chain Initiative is a good starting point; India shall push for a Quad Supply Chain Resilience Fund to immunise the supply chain from geopolitical and geographic risks
- Strengthening Engagement with Semicon Hubs: Technical collaboration with Vietnam may be stressed, as it is home to many technical research and academic institutes in the area of microchip design and development besides having abundant availability of trained and skilled manpower.
 - Strategic partnership with Taiwan, a leading global hub for semiconductor design and manufacturing, with leading producers of the semiconductor chip like Taiwan Semiconductor Manufacturing Co., which caters to the needs of Apple, Intel, AMD, Nvidia and other conglomerates, will also be a good beginning in this direction.

MSMEs and Global Value Chains

This editorial is based on "Integrating MSMEs into Global Value Chains" which was published in The Hindu BusinessLine on 02/05/2022. It talks about the significance of integrating India's MSMEs into Global Value Chains.

Tags: Indian Economy, GS Paper 3, Inclusive Growth, Mobilisation of Resources, Growth & Development, Industrial Growth

The rapidly expanding Global Value Chains (GVCs) of multinational corporations (MNCs) are increasingly dominating international trade, which emerging economies like India can hardly afford to ignore.

The limited presence of Indian micro, small and medium enterprises (MSMEs) in the GVCs is a consequence of the negligible share of internationalised MSMEs, which is primarily due to a weak innovation base, owing to weak networks of MSMEs.

The integration of Indian MSMEs with GVCs is the need of the hour for MSMEs. **India needs to create a hub for MSMEs** as a market with linkages to various countries

by building and strengthening regional innovation systems and by establishing a multipurpose science and technology commission in the clusters of SMEs.

What Role do the MSMEs Play in the Indian Economy?

- > The MSMEs play a fundamental role in India's economic growth, contributing 30% to its GDP and nearly 50% to its exports.
 - The sector **encompasses over 63 million enterprises** and provides a livelihood to over 111 million workers.
- The potential of MSMEs is well recognised by industry bodies, academics, and policymakers.
 - o In a recently concluded MSME conclave, the MSMEs' potential in building a complete supply chain, enhancing their global competitiveness was highlighted.

What are the Global Value Chains?

- Global Value Chains (GVCs) refer to international production sharing, a phenomenon where production is broken into activities and tasks carried out in different countries.
- In recent decades, international trade is increasingly dominated by global value chains (GVCs) of multinational corporations (MNCs). More than two-thirds of international trade now takes place within such GVCs.
- Internationalisation led by the steadily expanding GVCs has been rapidly reshaping the competitive environment of business in the global economy.
 - o It has opened national markets to new competitors, resulting in immense opportunities for both large and small firms.

What is the Significance of Integration of MSMEs in the GVC?

- Employment Generation: As the World Bank's World Development Report 2020 (WDR 20) suggests, contingent upon deeper reforms in developing countries and policy continuity in industrial economies, GVCs can help reduce poverty, and continue to augment growth and employment.
 - The Economic Survey of India also highlighted that by participating in GVCs, India's manufacturing sector may witness an addition of four million jobs by 2025 thus contributing one-fourth of the total in value-added terms towards the \$5 trillion economy.
- Boost in Income: Cross-country estimates suggest that a 1% increase in GVC participation can boost per-capita income by more than 1%, particularly

- when countries engage in limited and advanced manufacturing.
- **Productivity Improvements:** GVC participation can precipitate significant firm-level productivity improvements.
 - O WDR 2020 suggests that GVC firms engaged in manufacturing activities show higher labour productivity than one-way traders or non-traders, after controlling for firm-level capital intensity.
 - o Innovation is one another component of competitiveness, and MSMEs can test advanced technologies in a pilot mode.
- More Flexibility: Integration into GVCs can not only support economic growth but might also be a crucial strategy in the post-pandemic recovery.
 - O GVCs enable firms to participate in international markets more flexibly, as they might contribute only a small component of an overall supply chain rather than a product in its entirety.
- **Shockproofing:** The **OECD's METRO Model** shows that localised regimes are more vulnerable to shocks, and result in a significantly lower level of economic activity and fall in national incomes as compared to the interconnected regimes.
 - While interconnected regimes build resilience, stability and flexibility in the production networks, localised regimes offer fewer channels for adjustment to shocks.

What are the Impediments to GVC Integration?

- Access to Finance: MSMEs' integration into GVCs depends crucially on access to finance, however, the credit supply shortage to MSMEs has been a concerning gap in India's MSME sector.
 - O Despite its importance and potential, the MSME sector is often plagued by a lack of working capital, affecting its day-to-day operations.
 - Without improved access to finance, the goal of integrating MSMEs into supply chains will remain a challenge.
- > Informalisation: Given that 95% of the MSMEs in India are in the informal sector, access to formal finance remains a significant constraint.
 - O Studies highlight that MSMEs as a whole receive less than 6% of bank credit.
- > **Delayed Payments:** The number of applications filed by MSMEs on the delayed payment monitoring system MSME Samadhan has crossed the 1-lakh mark, amounting to over ₹26,000 crore.
- Lesser Technological Understanding: Moreover, MSMEs are often hesitant in adopting digital solutions due to limited understanding and inadequate training.

- The emergence of new technologies of the Fourth Industrial Revolution (AI, Data Analytics, Robotics and related technologies) is a bigger challenge for MSMEs than for organised largescale manufacturing.
- Other Challenges: The lack of skilled workforce, knowledge and adequate physical infrastructure are some other constraints that inhibit the efficiency of MSMEs and thus their integration into the Global Value Chains.

What can be Done for a Smoother Integration of MSMEs into GVC?

- Digitisation of MSME: A recent MSME digital readiness survey by PayPal highlighted that 29% of the MSMEs witnessed an increase in online customers and 32% experienced better payment solutions.
 - The digital payment ecosystem holds immense potential for MSMEs by helping them expand their online customer base and enabling faster flow of funds.
 - The adoption of digitalisation by MSMEs certainly needs to be supported more and leveraged in providing innovative financial solutions.
- Digital and FinTech Literacy: It becomes essential to provide training and generate more awareness among MSMEs about digitalisation of banking systems and their operational dynamics to make the digital transformation smoother.
 - Moreover, a strong impetus towards greater digitalisation in finance is the need of the hour.
 - Doing so will reduce the dependence of MSMEs on informal sources of finance and reduce their operation cost given the latter's high lending rates.
- Role of Banks: Banks could also play other roles to help MSMEs in GVCs - they can facilitate networking sessions with global companies.
 - Regular market updates can be provided so that the MSMEs can take informed decisions on such markets. This can help them to mitigate risks.
 - Global banks also have a role to play here in terms of connecting clients globally.
- Policy Reforms: Participation in the GVCs necessitates deeper reforms in labour markets, trade infrastructure, and improvements in the overall business environment.
 - O Policies directed towards facilitating vertical GVC linkages between domestic MSMEs and larger foreign and domestic firms can go a long way towards strengthening India's relative position in GVC trade.

Europe To The Centre

This editorial is based on "Europe To The Centre" which was published in Indian Express on 04/05/2022. It talks about India relations with Europe, primarily Germany and France and possible areas of cooperation.

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

India has recently witnessed a flurry of diplomatic activities with a long line of ministers, senior military officers and diplomats from a number of countries visiting Delhi and engaging with their Indian counterparts.

This attention being paid to India reflects not what India is but rather what India could become as **one of the key architects of a new international order.**

In this context, the Prime Minister's recent visits to Berlin (Germany), Copenhagen (Denmark), and Paris (France) give us a glimpse of India's post-Russian strategic future in Europe. As Russia, isolated by unprecedented Western sanctions, deepens its alliance with China, Europe has begun to loom larger than ever before in India's strategic calculus.

What are the Recent Developments between India and Europe (Specifically Germany and France)?

- In April 2022, the President of the European Commission on her visit to Delhi unveiled the new contours of the EU's strategic partnership with India by launching the India-Europe Trade and Technology Council. This is the EU's second such council.
 - However, in the PM's visit to Europe, the focus is on India's key bilateral partnerships with European majors - Germany and France as well as a critical northern corner of Europe, the so-called Norden.
 - The visit will provide India with an opportunity to find ways to limit some of the negative regional and global consequences of the Russia-Ukraine war and explore the emerging possibilities for stronger cooperation with key European countries.
- The strategic convergence between India and France is based on the fundamental conviction of both countries in a multipolar world and in the concept of strategic autonomy.
 - France has stood by India since 1998 when India conducted nuclear tests and the entire world was against the latter.
 - In recent times, France has been India's "new Russia" — its most important strategic partner.

- In the last few years, France has emerged as a strong defender of India's interests in the UN Security Council and a regional ally in the vast Indo-Pacific theatre.
- France has also been a major supplier of advanced arms to India.
- Germany and India do not have a traditional strategic partnership. It is a green partnership based on trade, investment, technology, functional collaboration, skill development, and sustainability.
 - O There are several initiatives like the **Indo-German** energy forum, environmental forum, partnership on urban mobility, skill development and science and technology.
 - o More recently, in January 2022, the German Navy frigate Bayern landed in Mumbai which was a remarkable step for Indo-German relations signifying a concrete outcome of the **Indo-Pacific** Policy Guidelines that Germany adopted in 2020.

What does the Ukraine Crisis hold for Indo-European Relations?

- The recent Russia-Ukraine war is one of the key obstacles that could shadow India's good relations with the European Union. However, the Western debate on Germany is even harsher.
 - o Germany is tied far more deeply to Russia than India with its annual trade with Russia being about \$60 billion (while India's is at \$10 bn).
 - Germany's strategic dependence on Russia is also serious with its heavy reliance on Russian natural gas.
 - O Unlike other European countries, France should be able to understand India's stand on this issue as both the leaders were constantly in talks with the Russian President regarding the issue.
- With sanctions imposed on Russia, the world along with the European Union is looking for better options for trade and investments. However, China with its muscular foreign policies is not a perfect partner anymore.
 - o India is an important partner in this regard due to its sustained economic growth and market size.
 - o The Ukraine crisis created an urgency to engage with India as part of Europe's Indo-Pacific Strategy for Cooperation.

What could be the Way Forward?

> India, Europe and Indo-Pacific: India will need Europe more than it has in the recent past, whether in building up its deterrent capabilities or accelerating its own economic and technological transformation.

- o India must deepen its all-round partnership with Europe, build a shared vision of an altered geopolitical landscape and encourage Europe to play a greater role in the Indo-Pacific.
- O The two can **mobilise massive economic resources** for sustainable development of regional infrastructure, wield political influence and leverage their soft power to shape the Indo-Pacific discourse.
- Possible Areas of Cooperation with Germany: Germany views India as an important partner for resolving global issues, including climate change, food security, energy and international peace and security
 - O Having built up a significant engagement with Russia over the decades, both India and Germany are under pressure to disentangle from the Russian connection.
 - The two leaders may jointly find solutions regarding coping up with the Russian President.
 - Expansion of India-Germany bilateral ties is also crucial. Commerce is what really drives Germany.
 - Making India an attractive new destination for **German capital**, now under pressure to reduce its exposure to Russian and Chinese markets, should be the highest priority for India.
- **Possible Areas of Cooperation with France:** The return of President Emmanuel Macron to power offers a good moment for India to imagine the next phase in bilateral relations.
 - o France has a critical role in making a success of India's ambitious current plans to expand domestic **production of weapons** with greater participation of private and foreign capital.
 - o France is also a preferred partner in the Indo-Pacific, even more so now with a blueprint for cooperation in the form of a Joint Strategic Vision for cooperation in the Indian Ocean Region concluded by both countries in 2018.
 - O As for nuclear energy, the two leaders must review progress in the joint construction of the world's largest nuclear park in Jaitapur, Maharashtra.
 - The project has stalled a bit and it could do with some political impetus.
 - O Apart from the above traditional areas, discussions between the two leaders may dwell on newer areas of cooperation such as connectivity, climate change, cyber-security and science and technology.
- Keeping Nordic Countries in Circle: The Nordic Five
 - Denmark, Finland, Iceland, Norway, and Sweden
 - have a population of barely 25 million but their **GDP at \$1.8 trillion** is greater than that of Russia.

- In the last few years, India has rightly recognised that every one of the European nations can contribute significantly to India's development.
 - Tiny Luxembourg brings great financial clout, Norway offers impressive maritime technologies, Estonia is a cyber power, Czechia has deep strengths in optoelectronics, Portugal is a window to the Lusophone world, and Slovenia offers commercial access to the heart of Europe through its Adriatic sea port at Koper.
- With Nordic countries, especially Denmark, India could build on the unique bilateral green strategic partnership.

A New Foreign Trade Policy for India

This editorial is based on "All Eyes on the New Trade Policy" which was published in Hindu BusinessLine on 05/05/2022. It talks about the challenges in India's current foreign trade policy and suggests changes that can be made to the same.

Tags: Indian Economy, GS Paper 2, Government Policies & Interventions, GS Paper 3, Growth & Development, Fiscal Policy, Inclusive Growth, Liberalisation

The 2021-22 fiscal ended on a cheerful note for India's international trade; Indian exporters did not just demonstrate Covid resilience but also posted **robust growth with record revenues of \$419.65 billion**, which is being seen as a sign of **exports bouncing back strongly.**

The Free Trade Agreements (FTA) with Australia and UAE are also being touted by policymakers as a gateway for extensive opportunities for Indian entrepreneurs.

However, all these achievements must not let it slide that a new **Foreign Trade Policy (FTP)** for India is still long awaited. The last FTP was notified in 2015 and a new one was supposed to be introduced in April 2020; since then it has been **periodically extended.**

The need for a new FTP can't be over-emphasised given recent geopolitical developments, the thrust on local manufacturing and a direction on bilateral trade conventions.

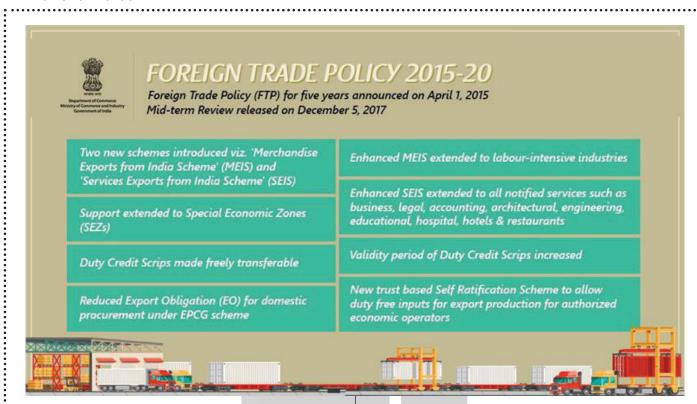
What is the Significance of a Foreign Trade Policy?

The Foreign Trade Policy is a legal document, issued by the Government of India, enforceable under the Foreign Trade Development and Regulation Act 1992.

- Revisited and notified quinquennially since the 1991 economic reforms, the FTP has been the guiding beacon for all stakeholders.
- The prime objective of a foreign trade policy is to facilitate trade by reducing transaction and transit costs and time.
- A FTP sets out the regulations for cross-border trade and reveals the government's position on a host of concomitant yet crucial policy variables such as technology flow, intangibles, and so on.

Why is a New Foreign Trade Policy Important?

- Clarifying India's Stand at Global Level: It is essential to clarify India's position and alignment with flagship programmes like 'Local for Global' and PLI (Production Linked Incentive) schemes, WTO's ruling against India's export incentive schemes, an overdue review of the Special Economic Zone (SEZ) scheme, changing geographical profiles of India's export basket, and implications of the FTAs.
 - In 2019, a dispute resolution panel of WTO had held that the export incentives under the FTP are violative of India's WTO Commitment.
- Impact on Export-Oriented Businesses: Another reason for overhauling the FTP is some export-oriented businesses have been adversely impacted by certain ad hoc, mistimed, and contradictory changes to the 2015 FTP
 - The 2015 FTP incentivised exports by issuing dutycredit scrips directly in proportion to exports. However, in 2020 the government limited the maximum export incentives for goods to Rs. 20 million, and in 2021, limited them to Rs. 20 million for services.
 - Moreover, the changes for service incentives were retrospectively notified in September 2021 to be applied from April 2019.
- Reduction in Outlays and Incentives: The annual export incentives the Merchandise Exports from India Scheme (MEIS) and Services Exports from India Scheme (SEIS) of Rs. 51,012 crore were replaced with the RoDTEP scheme incentive of Rs.12,454 crore.
 - The remaining Rs. 38,558 crore has been diverted into PLI to give benefit to a few sectors.
 - Also, earlier there was a 3% export incentive on agriculture implements like tractors, which has been reduced to 0.7%.
- Infrastructural Setbacks: Due to inadequate upgraded export infrastructure such as ports, warehouses and supply chains, the average turnaround time for ships in India is about three days while the world average is 24 hours.



- Crisis of MSMEs: With a contribution of about 29% to the GDP and 40% to international trade, MSMEs are the key players in achieving the ambitious export targets. However, the surge in input and fuel costs are hitting the bottom lines of MSMEs.
 - The rise in prices of raw materials such as steel, and plastics along with a shortage of shipping containers and labour are making it difficult for the MSMEs to take full advantage of the global increase in demand.

What can be the Possible Amendments in the New FTP?

- > Solving MSMEs' Crisis: Under the SEIS, an incentive of 3-7% of net foreign exchange earnings is provided to services exporters of notified services in India.
 - O A modification in the minimum cap for the net foreign exchange earnings eligible to claim under the scheme and faster GST refunds to global services are much needed with the new FTP.
 - o The government must also help MSMEs tap the export potential in existing tariff lines and provide policy support to raise the number of exporting MSMEs and increase MSME exports by 50% in 2022-23.
- More Incentives for Exporters: The new FTP could benefit exporters if the incentives granted to retail and wholesale traders under the ambit of the MSME category are extended to them as well.
 - The new FTP must enable exporters to leverage technology in the field of foreign trade. This will

- be particularly beneficial for MSMEs to compete with their global peers.
- Infra Upgrade: An efficient and extensive infrastructure network - warehouses, ports, SEZs, quality testing labs, certification centres etc.- will help exporters stay competitive in a cut-throat market.
 - o India needs to invest in upgrading export infrastructure to stay ahead of technology-advanced countries such as China.
 - o It also needs to adopt modern trade practices that can be implemented through the digitisation of export processes. This will save both time and cost.
- > GST Export Benefits: The export benefit under the GST is currently outside the purview of FTP which has resulted in the denial of export benefits to certain classes of exporters.
 - O Therefore, there is an urgent need to bridge the gap between the two policies. Furthermore, a seamless disbursal of GST refunds, without administrative delays, carries paramount importance.
- > WTO Compliant Schemes: This should be at the core of the FTP. The WTO works to dissuade governments from heavily subsidising exporters to provide a level playing field to all nations.
 - o The Indian government is well aware of the need to stay within the WTO norms and has already taken significant steps to withdraw subsidy-led schemes.
 - O However, more needs to be done at a fundamental level to promote exports and ensure that Indian exports are competitive in the global market.

- Other Measures: The policymakers shall urgently expand the zone of consideration to engage with all stakeholders such that a consciously-framed and guided policy outlook emerges which guides both the Centre and private businesses for the nation's economic progress.
 - These considerations should also factor the contemporary paradigm such as the impelling need for fuel-import substitution, leveraging the improvised logistic and fuelling entrepreneurial drive.
 - O Given the economic hardship caused by the pandemic, the new FTP shall work in a phased manner to address export constraints, review the regulatory and operational framework to reduce the transit costs and create a low-cost operating environment through developed logistics and utility infrastructure.

Dealing with the Power Crisis

This editorial is based on "Three Interlinking Factors That Explain The Coal Crisis" which was published in Hindustan Times on 06/05/2022. It talks about the causes of the power crisis that India recently witnessed and suggests measures to overcome the same.

Tags: Indian Economy, GS Paper 2, Government Policies & Interventions, GS Paper 3, Mineral & Energy Resources

India was recently hit by a power crisis when the daily peak power shortage rose to 10,778 MW and the energy deficit reached 5% at the national level, with some states experiencing steep deficits of up to 15%. Consequently, discoms resorted to load-shedding, resulting in long hours of outage for many households and rationed supply for economic activities.

Depleting coal supplies at thermal power plants has resulted in this crisis. However, this is **not a new phenomenon.** The shortage occurs almost every year and the government, despite its various measures, has not succeeded in overcoming the problem.

Now, unless the underlying issues and structural problems are addressed, this crisis won't be the last one to occur. The arithmetic solution is to make sure coal power plants stockpile enough fuel.

What is the Coal Dependency for Power in India?

As of September 2021, thermal power (power generated from burning coal, gas and petroleum) comprised 60% of India's installed capacity in power generation.

- ➤ Coal-based power generation, with a capacity of around 210 gigawatts (GW) of the total 396 GW, accounts for about 53% of India's total power capacity as on March 2022.
 - India imports about 20% of its thermal coal requirements.
- According to a CEEW (Council on Energy, Environment and Water) assessment, a disproportionate share of generation comes from older inefficient plants, while the newer and efficient ones remain idle for want of favourable coal supply contracts or power purchase agreements.

What can be the Possible Causes of the Power Crisis?

- Revival of Economic Activities: The heatwaves and revival of economic activities after Covid-19 disruptions propelled electricity demand.
 - In April 2022, average daily energy requirement increased to 4,512 million units (MU) from 3,941
 MU in April 2021, registering a 14.5% growth, compared to average year-on-year growth of around 5%. The jump from March to April was 6.5%.
 - The Railways, which dominate long-distance transport are also facing high passenger traffic on shared track.
- Inefficiency of TPPs: With 236 GW of thermal power plants (TPPs) running much below their capability (at 59% capacity utilisation), India could have managed this demand surge by ramping up thermal generation.
 - The TPPs' inability to ramp up power generation is explained by critical coal stockpile levels at plant sites.
 - While TPPs are required to maintain stockpiles approximating two-three weeks of fuel needs, more than 100 plants are operating with fuel stocks below 25% of the required level, and over half of these have stocks below 10%.
- ➤ Cash Flow Problem In The Electricity Sector: The inability of discoms to recover costs has resulted in outstanding dues of over ₹1 lakh crore to power generation companies. Consequently, power generation companies (GenCos) default on payments to Coal India Limited (CIL).
 - Following the Ukraine war, international spot market coal prices have soared to over \$400 a tonne from around \$50 a tonne in 2020.
- Discom Losses: Despite two decades of sectoral reforms, the aggregate losses of discoms stand at 21% (2019-20).
 - This is reflective of both operational inefficiency and poor recovery of dues from consumers,

- including those affiliated with state governments and municipal bodies.
- O These losses are also the reason for **discoms not** being able to pay the generators on time, resulting in payment delays to Coal India, which, in turn, is reluctant to supply coal on request.
- Multiple Structural Fault Lines: First is the chronic insolvency of discoms which has disrupted upstream supply chains.
 - Another is that the utilities do not undertake effective resource planning.
 - O Moreover, the blame-game in such cases is inevitable; with every crisis, states blame the Centre for faulty coal allocation and dispatch, and the Centre blames states' inability to pay upstream suppliers.
 - The result is 'band-aid solutions' to suppress the crisis rather than fixing structural fault lines.

What can be the Way Forward?

- > Planning and Policy Reforms: There is a need to change our planning from one of primarily managing scarcity to one of flexible resiliency.
 - O We also need to introduce feedback loops in the ecosystem so that stakeholders have both carrots and sticks — incentives to achieve/exceed compliance but repercussions if they don't.
 - o Policy focus should be on long-term structural solutions that address distribution financial viability and a robust mechanism for resource planning.
- **Enabling Ecosystem:** The need is to create an enabling ecosystem to ensure power plants work efficiently.
 - O With more than 90% of power being procured through long-term contracts, discoms have little incentive to dynamically assess and manage demand.
 - Discoms should be enabled to undertake smart assessment and management of demand.
 - o Revisiting fuel allocation and supporting the priority dispatch of efficient plants could help India reduce coal demand by up to 6% of our annual requirement, and set aside more coal for the times of crisis.
- Strategic Energy Transition: A knee-jerk reaction to the current crisis may generate pressures to redirect investments to fossil resources, risking India's longterm energy transition efforts. Coal dependency is neither predictable nor cheap.
 - A strategic approach to the energy transition that harnesses the low-cost power promise of renewable energy and opportunities for diversification in energy mix is critical to address persisting power shortages.

- Middle Term Solutions to Solve Crisis: While India is expected to tide over the current coal shortage, the only way it can secure its longer-term energy security is by ramping up production from renewables.
 - O However, in the medium term, it is also imperative to upgrade infrastructure at coal mining facilities, and open up existing mines to the private sector for mining to augment the supply of coal.
 - o Failure to do so will leave it vulnerable to imbalances in supply and have deleterious trickle-down effects.
- > Focussing on Domestic Production and Reducing Imports: Increasing domestic production to reduce and even avoid imports altogether is imperative. The key enabler for this would be to dispense with the requirement for fresh environment clearance.
 - o India must enhance investments in the **deployment** of clean coal technologies throughout the coal value chain.
 - Mining blocks allocated to the private sector, private commercial mining now being legal, may be helped to get into production at the earliest.
 - By doing so, the requirement for higher coal imports and the consequent onerous financial burden would get moderated.

Conclusion

Given the country's development aspirations, India's power demand is set to rise substantially and become more variable. Increasing climatic and geopolitical uncertainties underscore the need to become more efficient in the way we generate, distribute and consume energy. We need to act now for the long-term resilience of India's power sector.

Preventing Death Penalty

This editorial is based on "A New Track for Capital Punishment Jurisprudence" which was published in The Hindu on 07/05/2022. It talks about the need to avert death penalty and the current stand of Indian Judiciary on the same.

Tags: Governance, GS Paper 2, Judiciary, Government Policies & Interventions, Issues Arising Out of Design & Implementation

A recent trend in the evolution of jurisprudence around the death penalty (capital punishment) in India may reset judicial thinking around sentencing and have long-term ramifications in the awarding of capital punishment.

Recently while dealing with appeals against confirmation of the death sentence, the **Supreme Court (SC) of India** has examined sentencing methodology from the perspective of mitigating circumstances more closely.

The SC has also initiated a *suo motu* writ petition (criminal) to delve deep into these issues on key aspects surrounding our understanding of death penalty sentencing.

This present trajectory of judicial thinking will reaffirm the fundamentals of the rarest of rare principle and lead a **new wave of thinking in the jurisprudence around** capital punishment.

What is a Death Penalty?

- A capital punishment, also called the death penalty, is the execution of an offender sentenced to death after conviction by a court of law of a criminal offence.
 - o It is the highest penalty awardable to an accused.
- Capital punishment in India has been limited to the rarest of rare cases-like Section 121 (taking up arms against the state) and Section 302 (murder) of the Indian Penal Code 1860.
- The death penalty is seen as the most suitable punishment and effective deterrent for the worst crimes.

What is the Status of Death Penalty in the Indian Context?

- Prior to the Criminal Procedure (Amendment) Act (Cr PC) of 1955, the death penalty was the rule and life imprisonment an exception in India.
- > After the amendment of 1955 courts were at liberty to grant either death or life imprisonment.
 - As per Section 354 (3) of the CrPC, 1973 the courts are required to state reasons in writing for awarding the maximum penalty.
 - The situation has been reversed and a life sentence is the rule and death penalty an exception in capital offences.
- Capital punishment once delivered by the court of sessions ("sentencing court") is required under law (CrPC) to be confirmed by the jurisdictional High Court ("confirming court").
 - No death sentence imposed by a trial court can be executed unless the punishment is confirmed by the High Court too.

What are Rarest of the Rare Cases?

When the murder is committed in an extremely brutal, ridiculous, diabolical, revolting, or reprehensible manner so as to awaken intense and extreme indignation of the community. When total depravity and cruelty are the motives behind a murder.

Where does the Judiciary Stand in terms of Awarding Death Penalty?

What has the SC Held Regarding the Death Penalty?

- In the Bachan Singh vs State of Punjab (1980) the SC called for mitigating and aggravating circumstances to be balanced against each other and laid down the principle that the death penalty ought not to be awarded unless the alternative of life imprisonment is "unquestionably foreclosed".
- In the case Mofil Khan vs State of Jharkhand (2021), SC held that the "the State is under a duty to procure evidence to establish that there is no possibility of reformation and rehabilitation of the accused".

What are the Other Views?

- A report by the National Law University, Delhi's Project 39A (earlier known as the "Centre on the Death Penalty") titled National Law University Delhi's Project 39A found that there is no judicial uniformity or consistency when it comes to awarding the death sentence.
- In the report titled 'Death Penalty Sentencing in Trial Courts' (authored by Project 39A), findings reported from a study of cases involving death sentencing between 2000 and 2015 in Delhi, Maharashtra and Madhya Pradesh have showed that courts have been lax in assessing the aspect of reformation while undertaking the sentencing exercise.
- In Ravji vs State of Rajasthan (1995), the Supreme Court said that it is the nature of the crime and not the criminal which is germane for deciding the punishment. This is diametrically opposite to what was laid down in the Bachan Singh case.
 - In Machhi Singh vs State of Punjab (1983), the Court indicated that inadequacy of other punishments could justify the death penalty.

What Arguments have been Given in Favour of Death Penalty?

- Retribution: One of the key principles of retribution is that people should get what they deserve in proportion to the severity of their crime.
 - This argument states that real justice requires people to suffer for their wrongdoing and to suffer in a way appropriate for the crime.
- Deterrence: Capital punishment is often justified with the argument that by executing convicted murderers, we will deter would-be murderers from killing people.

Closure: It is often argued that the death penalty provides closure for victims' families.

Why is there a Need to Avert Death Penalty?

- > Against the 'Theory of Punishment': In the system of criminal justice worldwide, underpinning the element of sentencing is the 'Theory of Punishment'.
 - o It stipulates that there should be four elements of a systematic punishment imposed by the state:
 - The **protection** of society
 - The **deterrence** of criminality
 - The **rehabilitation** and reform of the criminal
 - The **retributive effect** for the victims and society.
 - o Capital punishment, in its very essence, goes against the spirit of the 'Theory of Punishment', and by extension, natural justice.
 - People who oppose Capital punishment are of the view that retribution is immoral, and it is just a sanitised form of vengeance.
 - Capital punishment doesn't rehabilitate the prisoner and return them to society.
 - Some of those executed may not have been capable of being deterred because of mental illness or defect.
- Preservation of Human Life: Though capital punishment serves as a response to the society's call for appropriate punishment in appropriate cases, the principles of penology have evolved to balance the other obligations of the society, i.e., of preserving the human life, be it of accused, unless termination thereof is inevitable and is to serve the other societal causes and collective conscience of society.
- > Social Factors Against Capital Punishment: An analysis of the possible reasons to avert the death penalty is reflected in a series of recent verdicts such as Lochan Shrivas vs State of Chhattisgarh (2021) and Bhagchandra vs State of Madhya Pradesh (2021).
 - o These reasons might include socio-economic backwardness, mental health, heredity, parenting, socialisation, education, etc.
- Discriminatory towards One Section: The poor, rather than the rich, are often the ones sent to the gallows.
 - O The numbers of the uneducated and the illiterate sentenced to death outweigh those who are educated and literate.
 - Also, the failure of the defence lawyer in highlighting the mitigating factors that could lead to avoidance of capital punishment makes the legal assistance ineffective.
 - In India, the legal assistance received by the poor facing serious charges is far from satisfactory.

What can be the Way Forward?

- Psycho-Social Analysis of the Accused: It wouldn't be wrong to consider the domain of death sentencing underexplored in India.
 - The intervention of the Supreme Court in framing guidelines around incorporation of a mitigation analysis and consideration of psycho-social reports of the prisoner at the time of sentencing is timely and necessary.
 - o The Indian Judiciary, in this context, also needs to evolve a legal device for procurement of a comprehensive report dealing with the socioeconomic and hereditary backgrounds of the accused from experts in the fields of social work, psychiatry, psychology, anthropology, etc.
- Strengthen the Doctrine of the Rarest of Rare: It is important to strengthen the doctrine of the rarest of rare, as laid down in the Bachan Singh case and reinstate fairness in the death penalty sentencing exercise.
 - The Court, in Bachan Singh case abundantly implied that no person is indubitably 'irreformable'.
- **Ensuring Deterrence in its True Sense:** Deterrence is most effective when the punishment happens soon after the crime. The more the legal process distances the punishment from the crime - either in time, or certainty - the less effective a deterrent the punishment will probably be.
 - o In this context, there is a need to expedite investigations at the hands of a well trained and equipped police system ably supported by fast track trials to reinforce the faith of the public in our legal system.
- **Bringing Social Reforms:** Instead of merely enhancing punishment, tackling crimes against women and children requires broader social reforms, sustained governance efforts and strengthening investigative and reporting mechanisms.

India's **Universities: A Rough Ride**

This editorial is based on "The Multiple Crises in Indian Universities" which was published in The Hindu on 09/05/2022. It talks about the key challenges that India's universities have to face and suggests steps that can be taken to alleviate their problems.

Tags: Governance, GS Paper 2, Education, Government Policies & Interventions, Issues Arising Out of Design & Implementation of Policies, Issues Relating to Development

Education has long been touted to play a key role in reducing socio-economic inequalities. Multiple studies, both in India and abroad, have reaffirmed the belief that higher education leads to better financial outcomes.

Following this, the Government of India launched several initiatives for the upliftment of Indian universities, such as the **Institutions of Eminence (IoE) Scheme** (for setting up/upgrading 20 Institutions as world-class teaching and research institutions), the **IMPRINT** initiative (for developing a roadmap for research to solve major engineering and technology challenges) and the **National Education Policy**, 2020.

Despite such efforts, India's once-great institutions of learning are beset by multiple crises – a **financial crunch** at the university level, a **deficit in research opportunities** for faculty, **poor infrastructure** and learning outcomes for students.

Where do Indian Universities Stand at the Global Level?

- The Times Higher Education (THE) in September 2021 released its World University Rankings 2022 edition which found that overall, India is home to 35 of the world's top 1,000 universities, its second-highest total ever in the rankings.
 - Out of those 35, Indian Institute of Science (IISc)
 was the top performer followed by IIT Ropar and
 JSS Academy of Higher Education and Research.
- Earlier in July 2021, the QS World University Rankings 2022 showed that overall, there were 22 Indian institutions in the top 1,000 list compared to 21 in the 2021 Rankings, with the IITs in Guwahati, Kanpur, Kharagpur and Madras making major strides in rankings.

What are the Causes of the Sufferings of India's Universities?

- Poor Governance Structure: Management of Indian education faces challenges of over-centralization, bureaucratic structures and lack of accountability, transparency, and professionalism.
 - The Ministry of Education is insisting higher education institutions to increase their intake capacity by 25%, while the Ministry of Finance has sought to ban the creation of new teaching posts.
 - Also, the spending on higher education, as a percentage of government expenditure, has stagnated at 1.3-1.5% since 2012.
- Poor Infrastructure: Poor infrastructure is another challenge to the higher education system of India, particularly the institutes run by the public sector suffer from poor physical facilities and infrastructure.

- Most Indian universities and colleges have overcrowded classrooms, poor ventilation and sanitation, and unsatisfactory hostel accommodation.
- Poor Teaching Capacity: The QS World University Rankings 2022 revealed that although Indian universities have improved their performance on academic reputation metric and research impact, they continue to struggle on the teaching capacity metric.
 - No Indian university ranks among the top 250 for faculty-student ratio.
 - Poor performance on teaching capacity is not because of any drop in hiring, but rather an increased student intake mandated by the government to implement reservations for economically weaker sections.
- Inadequate Research Grants: There are insufficient resources and facilities, as well as limited numbers of quality faculty to advise students. Most of the research scholars are without fellowships or not getting their fellowships on time which directly or indirectly affects their research.
 - Moreover, grants under the UGC's minor and major research project schemes have declined from ₹42.7 crore in FY 2016-17 to ₹38 lakh in FY 2020-21.
 - India has over 1,040 universities, but just 2.7% offer PhD programmes, given paltry funding and poor infrastructure.
 - The National Research Foundation (NRF), to improve research infrastructure in universities, has not yet been approved.
- Fall in Academic Standards: Academic standards and processes are not being maintained. Examination paper leaks have become common.
 - Candidates have anecdotally highlighted examination centre operators charging a hefty amount from candidates to help them pass.

How Big is the Financing Problem of Universities?

- Investments in university infrastructure have shrunk. At the central level, student financial aid was cut to ₹2,078 crore in FY 2022-23 from ₹2,482 crore in FY 2021-22; allocations for research and innovation were down by 8%, reaching ₹218 crore.
- ➤ The Higher Education Financing Agency (HEFA), which provides funding for all infrastructure loans to institutions, saw its budget reduced from ₹2,000 crore in FY 20-21 to ₹1 crore in FY 21-22. Instead, universities have been forced to take loans, but have few avenues to tap into.
- The University Grants Commission (UGC) was allocated ₹4,900 crore in FY 2022-23 versus ₹4,693 in FY 2021-

- 22, but stifled cash flow has led to delays in salary payments for deemed/central universities.
- Faculty members have faced salary delays for months, with salaries coming in weeks later.
- Most universities are running on a deficit Madras University saw an accumulated deficit of over ₹100 crore, forcing it to seek a ₹88 crore grant from the State government.
 - Twelve colleges of Delhi University have seen a financial shortfall, with allocations by the state reduced by nearly half.
 - This has led to cuts in discretionary spending

 many colleges in Delhi are unable to afford subscriptions to basic databases and journals.

What Measures can be Taken?

- Better Funding: There is an urgent need to increased funding, along with establishing dedicated funding streams for infrastructure grants/loans and financial aid.
 - Universities can also be freed up to utilise other revenue streams such as start-up royalties and advertising.
- Establishment of NRF: The establishment of the NRF is expected to connect the academia with ministries and industries and fund research that is relevant to local needs.
 - Funding for research needs to rise significantly, with institutions like the NRF supplementing (and not replacing) existing schemes (including those from the Ministry of Science).
 - Funding should also be allocated to enable course
 -based research experiences for undergraduates.
 - Moreover, NRF shall pose well-defined problems to the researchers, so that they can find solutions in a goal-oriented and time bound manner.
- > Sustaining Quality Education: It is disheartening to find that higher education institutions have failed to protect the sanctity of their examinations.
 - Improving this will require a decentralised approach, with universities allowed to take decisions on academic programmes, promotions, cohort size, etc.
- Scaling up existing HEIs: With the goal of increasing the gross enrollment ratio (GER) from the current 27% to 50% by 2035, India needs to not only open new Higher Education Institutes (HEIs) and universities but also scale-up existing HEIs.
 - This massive expansion will not only require additional financial resources but also calls for a new governance model.
 - Also, our institutions need to become multi-disciplinary in their scope and offerings and collaborate among themselves.

- > Ensuring Quality Education: Aligning the cost of education with the quality of the product is the first step in this direction.
 - Assessing the quality of education through an employability lens will ensure that we are addressing the 'unemployable graduates' problem.
 - Students prioritise employability when selecting universities; with the rapid changes in technology, future jobs are not yet defined. Therefore, programmes need to be designed with continuous feedback from the industry.
 - An employability scorecard can go a long way in helping students make an informed decision; it can also be used for continued accreditation of universities.

Conclusion

The NEP 2020 has sought to foster critical thinking and problem solving, along with social, ethical and emotional capacities and dispositions. Enabling this will require an encouraging ecosystem, with greater funding, autonomy and tolerance of universities (and activities by students/faculty). Without this, talented Indian citizens will continue to escape abroad, while policymakers lament India's brain drain.

The Making of A Manufacturing Hub

This editorial is based on "How to Give Manufacturing a Leg-up" which was published in The Hindu BusinessLine on 10/05/2022. It talks about the measures that can be taken to boost the manufacturing sector of India thus making it a future manufacturing hub.

Tags: Indian Economy, GS Paper 3, Industrial Growth, Growth & Development

In 2014, the Government of India launched its 'Make in India' initiative as a part of India's renewed focus on manufacturing. A slew of reforms were taken to boost manufacturing, design, innovation, and startups in India.

The "Atma Nirbhar Bharat" campaign announced in 2020 was also intended to further boost local manufacturing under its stated goal of making India economically self-sufficient.

India has a great scope and potential in manufacturing, given its demographic dividend and reasonably cheap labour. However, larger investments, upskilling of workforce and upgrading infrastructure are some of the areas where more work must be done.

What is the Scenario of India's Manufacturing Sector?

- Manufacturing is among the major economic activities that involves value addition that has consequential positive multiplier effects in the economy. India has the fifth largest manufacturing base in the world.
- As per the second quarter report of the Quarterly Employment Survey conducted by the Union Ministry of Labour, the manufacturing sector accounted for nearly 39% of all the employment generated in the selected nine sectors.
- More than 45% of the manufacturing output is obtained from the MSME sector in India.
 - The vast pool of human capital available in India at various skill levels offers a distinct competitive advantage to firms that conduct manufacturing activities within India.
- Over the years, there are certainly a handful of domains where India has carved a position of manufacturing leadership such as apparel & accessories, textiles, drugs & pharmaceuticals, petroleum products and motor vehicles.
 - However, we still have a long way to go before our manufacturing can match the success of our services exports.

What Impetus has been Given to Manufacturing in India?

- Infra Development Projects: For instance, the National Infrastructure Pipeline (NIP) built on a whole-ofgovernment approach, is already in place covering the FYs 2019-20 to 2024-25.
 - The statistics available on India Investment Grid reveal that there are 15,454 projects available involving a total project cost of \$1,981.83 billion as on May 5, 2022.
 - The National Industrial Corridor Development Programme was launched to facilitate the integrated development of industrial smart cities having plug and play infrastructure along with multi-modal connectivity.
 - Also, a number of Production-Linked Incentive (PLI) schemes have been announced since 2020 for various sectors that incentivise manufacturing with a goal to achieve 'Atma Nirbhar Bharat'.
- Manufacturing in Warehouses: The Central Board of Indirect Taxes and Customs (CBIC) has brought forward a new and improved version of the programme focused on manufacturing and other operations in bonded warehouses
 - Manufacturing in warehouses results in saving working capital, which is usually scarce in case of

- small enterprises and helping in **better positioning of MSMEs in the international market** by shortening the delivery schedule in the global supply chain.
- The Bonded Manufacturing Scheme has been revamped by CBIC to enable organisations gain competitive advantage.
- Custom Rules: Domestic manufacturing within India is also being encouraged through statutory measures like the Customs (Import of Goods at Concessional Rate of Duty) Rules, which has also been amended from time to time to take into account the dynamic needs of the industry and trade.

What is the Bonded Manufacturing Scheme?

- To support the "Make in India" program, the CBIC launched the Bonded Manufacturing Scheme under the Customs Act, 1962.
- Under this programme, a manufacturing unit can import goods (both inputs and capital goods) under Customs duty deferment with no interest liability.
- The scheme has no investment threshold and export obligations.
- > The **duties** are **fully** remitted if the goods resulting from such manufacturing operations done in bonded warehouses are exported.
 - The import duty is payable only in the event where the finished goods or the imported goods are cleared in the domestic market (ex-bonding).
- > The onboarding to the bonded manufacturing programme is **fully digital** and the microsite for the same is available on **'Invest India' portal**.

What are the Challenges Pertaining to the Manufacturing Sector?

- > Lack of Certified Factories: Corporations around the world increasingly prefer to source goods from factories that are ISO or BSI certified.
 - In China, a huge majority of factories are ISO or BSI certified, but finding similar operations in India can prove to be an uphill task. Majority of them do not even meet any basic inspection standards.
 - Practical issues like these are enough to discourage serious international buyers from considering India as a sourcing destination.
- Underdeveloped Manufacturing Sector: While the neighbouring as well as competitor nation China is currently in the midst of a 10-year transformational campaign 'Made in China 2025' to move the country beyond labour-intensive manufacturing and into cutting-edge sectors like robotics and aerospace, India in contrast is still aiming to bring old-school, labour-intensive manufacturing to an economy that desperately needs to create millions of new jobs.

- Even this low-end goal has been hit by a faltering economy over the last two years.
- Weak Infrastructure: India's weak infrastructure continues to be a fatal flaw for the manufacturing sector.
 - India uses only 3% of its GDP for infrastructure construction each year, as compared to China's 20% of its GDP.
 - Even today, India's surface transportation systems cannot meet the expectations of modern high-speed logistics – the backbone of efficient manufacturing.
- > Inadequate Power Supply: Poor and erratic electricity supply is yet another drawback that puts the country's manufacturers at a distinct disadvantage.
 - India's annual power gap is more than 10% and it has among the lowest per capita power consumption around the world.
- > Impact of Abundant Schemes: The announcements had two major lacunae.
 - First, the bulk of the manufacturing related schemes relied too much on foreign capital for investments and global markets for produce.
 - This created an inbuilt uncertainty, as domestic production had to be planned according to the demand and supply conditions elsewhere.
 - Second, policymakers neglected the third deficit in the economy, which is implementation.

What can be Done to Boost Manufacturing in India?

- Infrastructure Investments: A multi-pronged approach should be adopted to support manufacturing with the focus largely on large-scale infrastructure investments as it will itself create enormous growth opportunities.
 - Research has shown that investment in hard infrastructure also results in reduction of logistics cost of manufacturing.
- Policy Interventions: A final conceptual piece of India's manufacturing strategy has to be the design of policies to increase worker skills, and to increase access to finance for its firms.
 - The latter is a general need across the economy, but manufacturing firms are more likely to require fixed capital investments, and are hurt more by lack of adequate finance for expansion, upgrading, or working capital.
- Judicious Import Policy: Through judicious use of import policy, production within the country can be regulated with the objective of generating greater employment in the economy.

- Exports to international markets, facilitated by Customs, can also be boosted from the domestic surplus generated from the manufacturing capability within the country.
- Eliminating 'Policy Casualness': The spate of policy announcements without having the preparedness to implement them is 'policy casualness'. The government needs to take into account the implications of implementation deficit in its decisions.
 - Strong and carefully designed policy implementation would improve India's overall investment climate, thereby boosting investments, jobs, and economic growth.
- > Stable Power Supply: Stable, low cost and uninterrupted power is vital to promote the growth of the industries.
 - Though the availability of Power has improved to a great extent but India must ensure this as soon as possible on industrial level to reap the benefits of manufacturing growth.
- > State Specific Plans: Currently, manufacturing is mainly concentrated in a few states like Maharashtra and Gujarat which cover a substantial portion of India's geographical area.
 - States like Andhra Pradesh, Bihar, Chhattisgarh, Madhya Pradesh, Odisha, Rajasthan, Telangana, and West Bengal also have large land areas that can contribute to the success stories of Indian Manufacturing.
 - The reasons for less manufacturing activity in these States have to be carefully examined, and based on this, state specific industrialisation strategies need to be devised and implemented in a mission mode with active hand holding by the Central government.
- Imparting Skill: The quality of teaching in schools and colleges must be improved. The high-quality vocational training must be provided within the education system.
 - O India's labour productivity, though increased in the last decade, is lower than that of China. This should be addressed to compete in the global market. Introduction of vocational courses under New Education Policy 2020 is a welcome step.

Containing Rising Inflation

This editorial is based on "Control inflation by acting on liquidity" which was published in The Hindu on 12/05/2022. It talks about the issue of rising inflation and measures that can be taken to contain the inflation.

Tags: Indian Economy, GS Paper – 3, Planning, Growth & Development, Monetary Policy, Banking Sector & NBFCs

The recent action of the **Reserve Bank of India (RBI)** to raise the **repo rate** by 40 basis points and **cash reserve ratio (CRR)** by 50 basis points is a recognition of the serious situation with respect to inflation in our country and the resolve to tackle inflation.

Inflation has assumed a menacing proportion in almost all countries. The situation is the worst in the United States where the consumer price inflation stood at 8.56%, a level not reached for several decades. **Consumer price index (CPI)** inflation in India stood (in March 2022) at 6.95%. It is expected to rise further in the coming months.

On the other hand, the **Wholesale Price Index (WPI)** inflation had remained in double digits since April 2021. The GDP implicit price deflator-based inflation rate for 2021-22 is 9.6%.

In this context, it is imperative to understand the issue of inflation and measures that need to be taken in order to contain inflation.

What are the Reasons for Increasing Inflation in India Lately?

- Inflation in India cannot be described just as 'cost-push'. Abundance of liquidity has been an important factor.
 - The April Monetary Policy statement talked of a liquidity overhang of the order of ₹8.5 lakh crore.
 - Beyond a point, inflation itself can hinder growth. Negative real rates of interest on savings are not conducive to growth. If we want to control inflation, action on liquidity is very much needed with a concomitant rise in the interest rate on deposits and loans.
- The high rate of inflation in March 2022 is primarily due to rise in prices of crude petroleum and natural gas, mineral oils, basic metals, etc. owing to disruption in the global supply chain caused by the Russia-Ukraine conflict.
- On the other hand, the retail inflation rose mainly on account of rising prices of essential food items like 'oils and fats', vegetables and protein-rich items such as 'meat and fish'.
 - As per the CPI data, inflation in 'oils and fats' in March soared to 18.79% as the geopolitical crisis due to the Russia-Ukraine war pushed edible oil prices higher.
 - Ukraine is a major exporter of sunflower oil. In vegetables, inflation quickened to 11.64% in March, while in 'meat and fish' the rate of price rise stood at 9.63 compared to February 2022.

The sharp rise in commodity prices across the world is a major reason behind the inflation spike in India. This is increasing the import cost for some of the crucial consumables, pushing inflation higher.

What is Repo rate & CRR?

Repo rate is the interest charged by the RBI when commercial banks borrow from them by selling their securities to the central bank. Essentially it is the interest charged by the RBI when banks borrow from them - much like commercial banks charge you interest for a car loan or home loan.

Under **Cash Reserve Ratio (CRR)**, the commercial banks have to hold a certain minimum amount of deposit as reserves with the central bank. The percentage of cash required to be kept in reserves as against the bank's total deposits is called the Cash Reserve Ratio.

What is the Impact of Higher Inflation in India?

Repo Rate:

- It is expected to push up interest rates in the banking system. Equated Monthly Installments (EMIs) on home, vehicle and other personal and corporate loans are likely to go up.
- Deposit rates, mainly fixed term rates, are also set to rise.
- Consumption and demand can be impacted by the Repo rate hike.

> CRR:

- The hike in CRR will suck out Rs 87,000 crore from the banking system. The lendable resources of banks will come down accordingly.
- It also means the cost of funds will go up and banks' net interest margins could get adversely impacted.
- O Net interest margin (NIM) is a measure of the difference between the interest income earned by a bank or other financial institution and the interest it pays out to its lenders (for example, depositors), relative to the amount of their assets that earn interest.

What are the Challenges in Tackling Increasing Inflation?

- In the current situation, it is argued that inflation will come down, if some part of the increase in crude prices is absorbed by the government. There may be a case for reducing the duties on petroleum products for the simple reason that one segment of the population should not bear excessive burden. The same consideration applies to food prices.
 - But to think that it is a magic wand through which inflation can be avoided is wrong. If the additional

burden borne by the government (through loss of revenue) is not offset by expenditures, the overall deficit will widen.

- The borrowing programme will increase, and additional liquidity support may be required.
- Central banks cannot order interest rates. For a rise in the interest rate to stick, appropriate actions must be taken to contract liquidity. That is what the rise in CRR will do. In the absence of a rise in CRR, liquidity will have to be sucked by open market operations.
 - As the RBI Governor put it in his statement, "Liquidity conditions need to be modulated in line with the policy action and stance to ensure their full and efficient transmission to the rest of the economy."

What can be done to contain inflation?

> Fuel duty cut:

- Further duty cuts by some amount at least Rs 5 per litre according to expers.
- It can likely lower the inflation by 15-20 bps.
- It Has immediate and secondary impact on electricity, transport cost
- 1% rise in oil (Indian basket) could raise WPI by 8 bps.

> Food Prices:

- Crackdown on supply side if hoarding happens
- Ease import limits on pulses, oil seed

> More duty cuts:

More duty cuts for edible oil imports is required.
 However, it was reduced from 19.25% to 13.75%.

> Buffer stock:

- Prepare to use buffer stock if inflation spills over to cereals
- 1% rise in WPI primary food prices can go up CPI by 48 bps

> Other measures:

- Press for faster growth: 10% higher industrial output can ease retail inflation by 40 bps
- Address supply bottlenecks
- Boost income generating capacity to reduce burden on low income households

A Long Term Strategy to Tackle Heat Waves

This editorial is based on "Long-Term Plan Needed to Combat Heat Waves" which was published in The Hindu BusinessLine on 11/05/2022. It talks about the harmful impacts of heat waves and suggests long-term strategies that can be adopted to combat its impact.

Tags: Biodiversity & Environment, GS Paper 1, Important Geophysical Phenomena, GS Paper 2, Government Policies & Interventions, GS Paper 3, Climate Change, Environmental Pollution & Degradation

India has been in the grip of what seems like an eternity of heat waves. The temperatures over northwest and central India in April 2022 were the highest in 122 years.

India is no stranger to heatwaves but what stands out about the heatwaves this year is the remarkably earlier timing, and the large spatial extent, extending from the northwestern to the southeastern parts of the country.

It is time now that concrete plans are put in place to deal with heatwaves and closely linked extreme weather events. Early warning systems, heat-proof shelters and major afforestation are of vital need to reduce heat wave fatalities.

What are Heat Waves and Causes of its Occurrence?

- A heat wave is a period of abnormally high temperatures that occurs during the summer season in the North-Western and South Central parts of India. It is a condition of air temperature which becomes fatal to the human body when exposed.
- The India Meteorological Department (IMD) requires that temperatures should reach at least 40°C in the plains and at least 30°C in the hilly regions, and should reflect an increase of at least 5°C-6°C above the normal temperature to be classified as a heatwave.
- The proximate causes for the searing heat are an absence of rain-bearing Western Disturbances, or tropical storms that bring rain from the Mediterranean over north India.
 - The combination of global warming and population growth in already-warm cities in India is the primary driver of increased heat exposure.
 - The Urban Heat Island (UHI) also elevates temperatures within cities, which will be amplified during the heatwaves.
 - It occurs when cities replace natural land cover with dense concentrations of pavement, buildings, and other surfaces that absorb and retain heat.

How Intense the Heat Waves have Become in India?

➤ Heatwaves are a common phenomenon in India during the months of May-June, however, heatwaves in the

- year 2022 began early due to the gradually increasing maximum temperatures in many parts of India.
- As per IMD, the number of heatwave days in India has increased from 413 over 1981-1990 to 600 over 2011-2020.
 - This sharp rise in the number of heatwave days has resulted due to the increasing impact of climate change.
- The number of people killed due to heat waves has also increased from 5,457 over 1981-1990 to 11,555 over 2011-2020. Since 1967, 39,815 people have been killed due to heat waves across India.

What is the State-Specific Scenario of Heat Waves' intensity?

- ➤ Based on the geo-climatic and socio-economic conditions, the highest number of people have been killed in Uttar Pradesh (6,745), followed by Andhra Pradesh (5,088), Bihar (3,364), Maharashtra (2,974), Punjab (2,720), Madhya Pradesh (2,607), West Bengal (2,570), Odisha (2,406), Gujarat (2,049), Rajasthan (1,951), Tamil Nadu (1,443), Haryana (1,116), Telangana (1,067), Delhi (996), Jharkhand (855), Karnataka (560), Assam (348), and 954 people were killed across the remaining 12 States.
- According to the Maharashtra Health Department, this year's heat waves have claimed 25 lives in the State.

How Harmful are these Heat Waves?

- Human Mortality: Mortality due to heat waves occurs because of rising temperature, lack of public awareness programmes, and inadequate long-term mitigation measures.
 - According to a 2019 report of the Tata Centre for Development and the University of Chicago, by 2100, annually, more than 1.5 million people will be likely to die due to extreme heat caused by climate change.
 - The increased heat will lead to an increase in diseases like diabetes, circulatory and respiratory conditions, as well as mental health challenges.
- Impact on Economy: The frequent occurrence of heat waves also adversely affects different sectors of the economy. For instance, the livelihood of poor and marginal farmers is negatively impacted due to the loss of working days. Heatwaves have an adverse impact on these workers' productivity, impacting the economy.
 - According to an ILO report of 2019, India lost around 4.3% of working hours due to heat stress in 1995 and is expected to lose 5.8% of working hours in 2030.

- It also shows that 9.04% of working hours are expected to be lost in each agriculture and construction sectors, respectively, due to heat stress in 2030.
- Crop Damage and Food Insecurity: The concurrence of heat and drought events are causing crop production losses and tree mortality.
 - The risks to health and food production will be made more severe from the sudden food production losses exacerbated by heat-induced labour productivity losses.
 - These interacting impacts will increase food prices, reduce household incomes, and lead to malnutrition and climate-related deaths, especially in tropical regions.
- Impact on Workers: Workers in sectors like agriculture and construction will be severely impacted in 2030 because India's large population depends on these sectors for their livelihoods.
 - What should be of interest to India is that countries and regions with precarious labour market conditions are likely to suffer higher productivity losses with such extreme heatwaves.
 - In absolute terms, India is likely to lose around 34 million full-time jobs in 2030 due to heat stress.
- Weaker Sections to be Specifically Impacted: The climate science community has reported overwhelming evidence that extreme events such as heatwaves are likely to become more intense, more frequent and of longer duration in future, unless emissions of greenhouse gases and aerosols are significantly cut globally.
 - It is important to remember that heatwaves in India, such as the current event, have the potential to influence thousands of vulnerable and poor people who contributed very little to the climate crisis.

Where does India Stand in terms of a Heat Wave Impact Mitigation Strategy?

- Before 2015, no national-level heatwave action plan was available to fight against such calamities.
 - At the regional-level, Ahmedabad Municipal Corporation (AMC) prepared the first Heat Action Plan in 2013, followed by the devastating heatwaverelated deaths in 2010.
- In 2016, the National Disaster Management Authority (NDMA) issued comprehensive guidelines to prepare national level key strategies for mitigating the impact of heatwaves.
- Although some preventive measures have been undertaken to mitigate and adapt to extreme weather-related

shocks, such initiatives are insufficient to prevent human fatalities from heatwaves as implementing preventive measures, mitigation, and preparedness actions remains difficult.

What Long-Term Strategies does India need to Adopt to Mitigate the Impacts of Heat Waves?

- > A Heat Waves Action Plan: The adverse impacts of heat waves indicate that effective disaster adaptation strategies and more robust disaster management policies are required in heatwave zones to lessen the impact of heatwaves.
 - As deaths due to heatwaves are preventable, the government must prioritise preparing a long-term action plan to safeguard human lives, livestock, and wildlife.
 - o Effective implementation of the Sendai Framework for Disaster Risk Reduction 2015-30 with the State playing a leading role and sharing responsibility with other stakeholders is now the need of the hour.
- **Early Warning Systems:** Death from heat waves can be prevented by installing improved early warning systems that communicate heatwave threats, recommend different preventative measures, and constrain disaster impacts.
 - Disseminating public awareness through print, electronic and social media, providing heat-proof shelter facilities during summer, easing access to public drinking water, and huge afforestation in urban and rural areas, would help mitigate heat wave fatalities.
- Declaration of Heat Waves as a Natural Disaster: Recognising heat waves as a major disaster is long due. India still has a long way to go in building public awareness, particularly on how individuals and local communities can take care of themselves.
 - O Also, there needs to be clear guidelines regarding when to shut schools or about the optimal ranges of temperatures that a household AC should be kept at or how long one should stay outdoors if that's unavoidable.
- Local Level Preparedness: Heatwave is India's second most lethal disaster after the flood. Declaring heat waves as a natural disaster would help the state and district administration prepare a heatwave action plan at the regional level.
 - o This will help build resilience infrastructure, develop early warning infrastructure, and create public awareness.
 - o It is also **crucial to prepare a database at the district** level involving the age, gender, and occupation of people who have died due to heatwaves.

- Passive Cooling to Reduce UHIs: Passive cooling technology, a widely-used strategy to create naturally ventilated buildings, can be a vital alternative to address the urban heat island for residential and commercial buildings.
 - The IPCC's AR6 report cites ancient Indian building designs that have used this technology, which could be adapted to modern facilities in the context of global warming.
- **Replacing Dark Roofs:** A big reason that cities are so much hotter than rural areas is that they are covered by dark roofs, roads and parking lots that absorb and retain heat.
 - One of the long term solutions can be replacing the dark surfaces with lighter and more reflective materials; it will result in a comparatively cooler environment.

Promoting Agri-tourism

This editorial is based on "Making Agri-Tourism a Sustainable Business" which was published in The Hindu BusinessLine on 14/05/2022. It talks about the significance of agri-tourism and opportunities to promote it.

Tags: Indian Economy, GS Paper 3, Industrial Growth, Growth & Development

Planet, people, and profit are three important factors in sustainable businesses and the development paradigm. In search of sustainability, agriculture and rural ecosystem services remain a greenfield without much depreciation or value erosion, notably agri-tourism.

Agri-tourism, once a small niche, is expanding rapidly and getting a big push from the Ministry of Tourism. An enabling environment is required for agri-tourism to thrive and have at least a 15-20% share in the tourism industry.

What is Agri-tourism?

- > Agri-tourism can be defined as a form of **commercial** enterprise that links agricultural production and/ or processing with tourism to attract visitors onto a farm, ranch, or other agricultural business for the purposes of entertaining and/or educating the visitors while generating income.
 - Agri-tourism could be thought of as the crossroads of tourism and agriculture.
- It is a **non-urban hospitality product**, serving an agrarian lifestyle, culture and heritage with an abundance of natural resources. Agri-tourism has gained traction in the tourism industry.

What is the Growth Rate Scenario of the Industry?

- Agri-tourism is a niche and an emerging market segment of the tourism industry. The agri-tourism market globally was valued at \$42.46 billion in 2019 and is expected to reach \$62.98 billion by 2027, registering a Compound Annual Growth Rate (CAGR) of 13.4% between 2020 and 2027.
- The seeds of agri-tourism in India were first sown by the formation of the Agri Tourism Development **Corporation (ATDC)** located at Baramati in Maharashtra.
 - o The ATDC was founded in 2004 by Pandurang Taware, an entrepreneur from the farming community.
- Currently, India's revenue from agri-tourism is growing at an annual growth rate of 20%.

Why is Agri-tourism Increasingly Significant?

- > Eco-Friendly Tourism: Rapid climate change and tourism induced pollution level and Greenhouse Gas (GHG) emissions have resulted in rising demand for natural and rural destinations as tourist attractions and that can bring eco-friendly tourism experiences such as agri-tourism into the mainstream business.
- Addresses Rural 'Decline': India's agriculture has been under stress due to increased input costs, volatile returns, climatic adversaries, land fragmentation, and so on.
 - Although it is a mainstay of the economy, farmers have shifted to other industries in search of alternative livelihoods and income diversification.
 - O Agri-tourism can address the 'hollowing out' effect of rural decline and restore farmers' confidence in agriculture and ecosystem-based services.
- Manifold Benefits to Farmers: Agri-tourism helps in supporting incomes of farmers.
 - o It also acts as both a promoter and inhibitor to changing farmers' attitudes or preferences to farming.
 - It incentivises farmers to use the land which would otherwise be left fallow or uncultivated.
 - In contrast, it also prevents a portion of farmland available to a farmer engaged in agri-tourism from cultivation, and instead uses it for tourism activities.
- Benefits for Communities: From a community perspective, agri tourism can be a vehicle for:
 - o generating additional revenue for local businesses and services from tourists;
 - o upgrading / revitalising community facilities for residents and visitors;

- o increasing protection of rural landscapes and natural environments for tourists and residents;
- o helping preserve and revitalise local traditions, art and craft;
- o promoting inter-regional, inter-cultural communication and understanding.
- > Benefits for Tourism Operators: From a tourism industry view point, agri tourism can be a means of:
 - o diversifying the mix of tourism products and services available to visitors;
 - o increasing tourism flows into attractive rural
 - o increasing season length during traditionally offpeak business periods;
 - o uniquely positioning rural regions in key tourism markets:
 - Bringing more **non-local currency to local businesses**.

What can be the Underlying Challenges?

- Active farmers may tend to ignore their farming activity if their attention and focus shift towards agri-tourism, if it becomes a more lucrative source of income.
- The tourists prefer to visit agri-tourism centres with a larger area and multiple fun and recreational activities.
 - O This contrasts with the very purpose of agri-tourism that is to support small and marginal farmers, who are unlikely to have larger agri-tourism centres with several amenities.
- Linguistic challenges have been found to be one of the barriers in the enhancement of the tourism potential.
 - O People are found to be lacking proper fluency in Hindi, English or even local dialect, for interaction with the tourists.
- **Insufficient financial support** can hinder the tourism potential of the region, which would help the folks to preserve the local culture, traditions, heritage, art forms etc.
- The whole tourism concept is very indigenous in the rural areas. Though initiative attempts have been taken by the local youths, yet the professionalism is lacking.
 - O They are lacking proper training to project in a manner suitable from a tourism perspective.
- > Some regions have great potential as an upcoming agri-tourist spot. However, lack of business planning skills is another big obstruction in this path.

What can be Done to Promote Agri-Tourism?

> Policy Attention: Agri-tourism warrants greater policy attention in developing countries where a majority of the populace is either directly or indirectly dependent on agriculture.

- O With perpetual adversities like uncertain cash flow, recurring debt trap and unpredictable climate, agritourism can be promoted as an income-generating activity for farmers and strengthen economic, cultural and ecological resilience of rural regions.
- > Addressing Land Issues: It is important for the government to address the issue of small/inadequate land to support agri-tourism.
 - One way to serve the tourist market is land consolidation through cluster-based farming or One District One Crop services.
- Role of State Agencies/Investors: The state agencies can account for farmers' economic dependence on farm operations and the perceived popularity of agri-tourism activities in order to enable business environments for agri-ecosystem-based services.
 - O Social or impact investors can mobilise private equities into agri-tourism based on the stage of the business and business model adopted by agri-preneurs.
 - The ATDC can attract start-ups and impact investors to harness the business potential of the agri-tourism landscape in India.
- R&D for Agri-tourism: Promotion of Agri-Tourism needs conceptual convergence with Rural Tourism, Eco-Tourism, Health Tourism, Adventure Tourism and culinary adventures.
 - Research is one of the key factors for development in any discipline as it helps students and practitioners to get involved in their areas of interest and search for all possible solutions for the benefit of local communities.

How can Farmers Promote Agri-tourism?

In order to achieve success in the field of agritourism, the farmers should:

- Give a wide publicity of their tourism centre by newspapers, television etc. and develop contacts with the schools, colleges, NGOs, clubs, unions, organisations etc.
- > Train their staff or family members for reception and hospitality of the agri-tourists.
- Understand the customers' demands and their expectations and serve them accordingly.
- Charge optimum rent and charges for the facilities/ services on the commercial base.
- Develop a website and update from time to time to attract foreign tourists and take their feedback and comments about the service and suggestions for more development and modification.

- Develop **different agri-tour packages** for different types of tourist and their expectations.
- **Small farmers** can develop their agri-tourism centres on the basis of cooperative society.



An Opportunity for Collaboration in South Asia

This editorial is based on "South Asian Nations must Collaborate on Climate" which was published in Hindustan Times on 16/05/2022. It talks about the scope of collaboration among the South Asian nations vis-a-vis climate change.

Tags: International Relations, GS Paper 2, India and its Neighbourhood, Groupings & Agreements Involving India and / or Affecting India's Interests, GS Paper 3, Disaster Management Environmental Pollution & Degradation

Regional cooperation in South Asia has been an exercise in hope but suboptimal in its outcome. The ongoing climate crisis can serve well as an opportunity to bring a paradigm shift.

South Asia faces several climate challenges, however, the similarity of the challenges and the complementary strengths of the nations, along with their shared geography, socioeconomic characteristics, and cultures, present opportunities for collaboration among the South Asian countries.

The region needs to double down on pursuing Sustainable Development Goals (SDGs). India could assist by leveraging its development assistance to other South Asian countries by joining hands with international development agencies to jointly design, fund, and implement climate resilience programmes.

South Asia and Climate Change

How much does South Asia Emit?

- Home to about one-fourth of the global population, the region is responsible for 4% of historical global greenhouse gas (GHG) emissions.
- The annual per capita GHG emissions were **2.6 tonnes** of CO₂ equivalent in 2019, the lowest of any region globally, while the GDP per capita (purchasing power parity) was \$5,814 in 2020, the second lowest globally, just ahead of Africa.

How much does South Asia Suffer?

- South Asia countries are **among the most vulnerable** globally to the impacts of climate change.
 - o Extreme climate-related events affect more than half of the region's population every year

- and continue to burden South Asian countries' economies.
- The region is also home to the lowest lying country in the world: Maldives, which could be submerged in the not-too-distant future.
- The IPCC's AR6 report presents a troubling forecast for South Asia, predicting the region will see hotter weather, longer monsoon seasons, and increased droughts as total global warming increases by around 1.5°C in the next two decades.
 - Heatwaves and humid heat stress will be more intense and frequent during the 21st century over South Asia.
- According to the World Bank, almost 700 million people (nearly half of South Asia's population) have been affected by at least one climate-related disaster in the last decade.
 - India and Pakistan ranked among the 20 countries most affected by climate change in the 21st century in the think tank Germanwatch's 2020 Global Climate Risk Index.
 - Another McKinsey Global Institute report found climate impacts could rob South Asian countries of up to 13% of their GDP by 2050.

What are the Associated Challenges regarding Regional Cooperation?

- Lack of Unanimity over Environmental Issues: Consensus building continues to be a challenge on major decisions related to the environment. Crucial shared resources, such as the air, underground water aquifers and biodiversity, remain largely ungoverned.
 - Constantly changing plans for a regional electricity trading mechanism, potentially crucial in the age of renewables, have been sites of diplomatic bitterness.
 - Moments for optimism, such as a SAARC Action Plan on Climate Change and a joint declaration by South Asian Environment Ministers in Dhaka in 2008 were also quickly forgotten.
- Challenges of Geopolitics: The very idea of South Asia has been eroded by the tides of recent geopolitics. China's economic dominance and new alliances in the region have exacerbated tensions between neighbouring India, Pakistan, Bangladesh and Nepal.
 - Institutions such as the SAARC seem to be at the point of no return.
- Territorial Issues: The arbitrary nature of national borders makes climate change hard to manage. They are determined by politics and often completely neglect ecological boundaries and planetary systems.

 The rigid borders of South Asia, so hastily defined in the middle of the 20th century, are unsuited to the problems of the 21st.

What can be Done?

- Utilising Unutilised Energy Resources: The Himalayan countries of Afghanistan, Bhutan, India, Nepal, and Pakistan have large, unutilised hydropower resources.
 - Collaboration on technologies and finances, and the development of a common South Asian power market can lead to increased energy security while reducing power costs and GHG emissions.
 - India's lead on solar power can help other countries develop this renewable resource as a cheap and principal energy source.
- Regional Cooperation in Potential Areas: Based on the climate crisis challenges and current initiatives, five key areas emerge for regional cooperation:
 - Sustainable Urbanisation inclusive sustainable municipal services, green transport, pollution abatement and prevention.
 - Climate-smart Agriculture water and resource efficiency, minimising food wastage, transport logistics and cold chains, and food processing.
 - Disaster Resilience joint and coordinated early warning systems for hydro-meteorological events, shared response mechanisms to disasters including chemical and oil spills in coastal areas, and forest fires.
 - Renewable and Clean Energy solar and wind energy, power storage technologies, joint development of hydropower projects, regional energy market, and increasing energy efficiency across industries, farms, institutions, offices and homes.
 - Downscaled Climate Modelling to predict short- to long-term impacts and implement people-oriented adaptation plans.
- Private Sector Participation: The private sector will have a substantial role in climate adaptation and mitigation.
 - Thus, relaxation of foreign direct investment rules will help, especially for green technologies, digital firms, technologies of Industry 4.0, waste management and treatment, disaster resilience enhancing processes, and technologies including in infrastructure sectors such as climate-resilient roads and water transport.
- SAARC Climate Fund: Countries could also establish a SAARC Climate Fund, which could pay for adaptation and mitigation initiatives with a strong focus on

innovations, joint R&D, technology transfer, knowledge exchange, and capacity building.

- o The fund could also raise money from private foundations and individuals, Corporate Social Responsibility (CSR) initiatives, and bilateral and multilateral agencies.
- Climate Education: Climate education will help communities understand and address the impact of global warming, encourage behaviour changes, and help them adapt to climate change.
 - o Including climate education in national curricula will empower children and young people of the south Asian nations with the required knowledge and skills, to build a green, sustainable and climateresilient future.

Democracy and Sedition

This editorial is based on "In abeyance of Section 124A, a provisional relief" which was published in The Hindu on 17/05/2022. It talks about the sedition law in modern India and its merits and demerits.

Tags: Governance, GS Paper - 2, Issues Arising Out of Design & Implementation of Policies, Government Policies & Interventions, Fundamental Rights, Judgements & Cases, Indian Constitution

In a brief order delivered in S.G. Vombatkere vs Union of India, a three-judge Bench of the Supreme Court of India effectively suspended the operation of Section 124A of the Indian Penal Code (IPC). The provision, which criminalises sedition, has been used by successive regimes, including by governments post-Independence, to suppress democratic dissent.

Previously, during oral hearings, the Bench, presided by the Chief Justice of India, Justice N.V. Ramana, had indicated that it was of the view that the law was an anachronism, a colonial-era relic.

Now, through a recent order, the Supreme Court has directed governments, both at the level of the Union and the States, to keep "all pending trials, appeals and proceedings" arising out of a charge framed under Section 124A "in abeyance".

In this context, it is imperative to investigate the sedition law (Section 124A of IPC) in depth and bring out its merits and demerits.

What is Sedition Law?

Section 124A defines sedition as any action — "whether by words, signs, or visible representation" — which "brings or attempts to bring into hatred or contempt

- or excites or attempts to excite disaffection towards the Government established by law in India".
- The word "disaffection", the provision explains, "includes disloyalty and all feelings of enmity". However, comments without exciting or attempting to excite hatred, contempt or disaffection, will not constitute an offence under this section.

What is the Basis of **Consideration of Sedition Law?**

- Direction for consideration of sedition law was issued after the Union government filed an affidavit informing the supreme court that it had decided to re-examine the law.
- The deposition, by itself, offered no firm commitment on whether the Government would recommend to Parliament a complete removal of Section 124A.
- But the Bench believed that the offer to reconsider the provision, if nothing else, showed that the Government was in broad agreement with the Court's prima facie opinion on the matter, that the clause as it stands "is not in tune with the current social milieu, and was intended for a time when this country was under the colonial regime".

What was the Debate in **Constituent Assembly Regarding Sedition Law?**

- K.M. Munshi argued forcefully in the Constituent Assembly to delete the use of the "equivocal" word "sedition" as a permitted restriction on free speech.
 - o In the words of K.M. Munshi, should the word not be deleted from the Draft Constitution, an "erroneous impression would be created that we want to perpetuate 124-A of the I.P.C".
 - As is only too evident, the law was always meant to be used as a restraint on dissent, to crush any and every form of opposition aimed at the government.
- Munshi's amendment sailed through. The adopted Constitution did not permit a restriction on free speech on the grounds of sedition.
 - O But despite this, governments across India continued to charge people with the offence.
 - o In the 1950s, two different High Courts struck down Section 124A as offensive to freedom. But, in 1962, in Kedar Nath Singh vs State of Bihar, a five-judge Bench of the Supreme Court reversed these verdicts.
 - o The Court found that Section 124A was defensible as a valid restriction on free speech on grounds of public order.
 - O However, while upholding the clause, the Court limited its application to "acts involving intention

- or tendency to create disorder, or disturbance of law and order, or incitement to violence".
- The court's decision failed to recognise that terms such as "disaffection towards the government", which are fundamentally vague, ought to have no place in a penal statute, and that, all along, the intention behind criminalising sedition was to quell the right to dissent.

What can be the **Underlying Challenges of Sedition Law?**

- > Against the Basic Structure: "The essence of democracy," as Munshi put it in the Constituent Assembly "is criticism of government." The sedition law disregards this core spirit. It criminalises censure and opposition and it enervates, to the point of exhaustion, the basic structure of a democratic republic.
- Marginalised most affected: In its application by law enforcement, the limitations imposed in Kedar Nath Singh have rarely been observed. And in recent years, there is seen an enhanced exploitation of the law, where even the most benign acts of opposition have been met with a charge of sedition.
 - O As is often the case with abuses of this kind, it is the most marginalised sections of society that have faced the brunt of the harm.
- Section 124A is a relic of colonial legacy and unsuited in a democracy. It is a constraint on the legitimate exercise of constitutionally guaranteed freedom of speech and expression.
- Dissent and criticism of the government are essential ingredients of robust public debate in a vibrant democracy. They should not be constructed as sedition.
 - O Right to question, criticize and change rulers is very fundamental to the idea of democracy.
- The British, who introduced sedition to oppress Indians, have themselves abolished the law in their country. There is no reason why India should not abolish this section.
- The terms used under Section 124A like 'disaffection' are vague and subject to different interpretations to the whims and fancies of the investigating officers.
- IPC and Unlawful Activities Prevention Act 2019 have provisions that penalize "disrupting the public order" or "overthrowing the government with violence and illegal means". These are sufficient for protecting national integrity. There is no need for Section 124A.
- Sedition law is being misused as a tool to persecute political dissent. A wide and concentrated executive discretion is inbuilt into it which permits blatant abuse.
- In 1979, India ratified the International Covenant on Civil and Political Rights (ICCPR), which sets forth internationally recognized standards for the protection

of freedom of expression. However, misuse of sedition and arbitrary slapping of charges are inconsistent with India's international commitments.

What are the Arguments Given in Favour of Sedition Law?

- Section 124A of the IPC has its utility in combating anti-national, secessionist and terrorist elements.
- It protects the elected government from attempts to overthrow the government with violence and illegal means. The continued existence of the government established by law is an essential condition of the stability of the State.
- > If contempt of court invites penal action, contempt of government should also attract punishment.
- Many districts in different states face a maoist insurgency and rebel groups virtually run a parallel administration. These groups openly advocate the overthrow of the state government by revolution.
- Against this backdrop, the abolition of Section 124A would be ill-advised merely because it has been wrongly invoked in some highly publicized cases.

What could be the Way Forward for Sedition Law?

- Time to Reform the Law: It is no doubt true that a law cannot be invalidated merely because it has been subject to misuse. But in the case of sedition, the rationale for the decision in Kedar Nath Singh and the survival of Section 124A have both become untenable with time.
 - o Since 1962, when the judgment was handed out, the Supreme Court's reading of fundamental rights has undergone a transformative change.
 - o For instance, the Court has, in recent times, struck down penal laws on grounds, among other things, of imprecision in their language, and of the chilling effect that the restrictions have on free speech.
- India is the largest democracy of the world and the right to free speech and expression is an essential ingredient of democracy. The expression or thought that is not in consonance with the policy of the government of the day should not be considered as sedition.
- Section 124A should not be misused as a tool to curb free speech. The SC caveat, given in Kedar Nath case, on prosecution under the law can check its misuse. It needs to be examined under the changed facts and circumstances and also on the anvil of ever-evolving tests of necessity, proportionality and arbitrariness.
- The higher judiciary should use its supervisory powers to sensitize the magistracy and police to the constitutional provisions protecting free speech.

- The definition of sedition should be narrowed down, to include only the issues pertaining to the territorial integrity of India as well as the sovereignty of the country.
- The word 'sedition' is extremely nuanced and needs to be applied with caution. It is like a cannon that ought not to be used to shoot a mouse; but the arsenal also demands possession of cannons, mostly as a deterrent, and on occasion for shooting.
- To protect our democracy, we must ensure that the constitutional guarantees to personal liberty and freedom do not go in vain. For that, each of our penal laws must be animated by a concern for equality, justice, and fairness.

Ensuring Mineral Availability for EVs

This editorial is based on "EV Plan Hinges on Securing" Rare Resources" which was published in The Hindu BusinessLine on 17/05/2022. It talks about the measures that India can take to ensure mineral availability for giving impetus to India's EV industry.

Tags: Indian Economy, GS Paper 2, Government Policies & Interventions, GS Paper 3, Growth & Development, Technology Missions, Indigenization of Technology, GS Paper 1, Important Minerals & Resources

The Indian automotive industry is experiencing a paradigm shift as it tries to switch to alternative and less energy demanding options like electric vehicles (EV). The transition from petrol to EV is a significant step in the move to a **net-zero future**.

However, at the same time it also impacts India's import dependency for the minerals used for EV manufacturing. EVs, like various low carbon technologies, use several exotic metals in their design, many of which are considered critical for effective functioning of the EVs.

While the government has set a high target for EV sales, India is not endowed with many of the rare minerals such as lithium, cobalt, and nickel, which are used to make lithium-ion (Li-ion) battery cells, which then is utilised to generate electric car batteries.

What is the Scenario of Production of these Elements?

In 2020, Australia was responsible for 49% of global lithium production, while 65% of graphite was produced in China, 68% of cobalt in Congo, and 33% of Nickel in Indonesia.

O Apart from graphite and nickel where India has 3% and 5.32% share globally (respectively) and is amongst the top five, in rest there is a huge deficiency.

What is their Significance in EV Manufacturing?

- According to the International Energy Agency (IEA)'s Sustainable Development Scenario, the demand for graphite, nickel, copper, cobalt and manganese is expected to see phenomenal growth in the EV industry, with lithium being the most sought after.
- A typical Lithium-ion battery used in an electric passenger vehicle contains 8 kg of Lithium, 35 kg of nickel, 20 kg of manganese and 14 kg of cobalt.
 - o The anode in Li-ion batteries requires graphite and, apparently, there are no substitutes for it.
 - O The cathodes, which also require Li-on, contain nickel and deliver high energy density, allowing the vehicle to travel further.
- **Cobalt** is important for EV as it **prevents the cathode** from overheating while extending the life of batteries.
- Manganese, on the other hand, contributes 61% of the cathode needs of the batteries.
- As per IEA, the **amount of minerals required** by an electric car would be at least six times more than a conventional petrol and diesel vehicle.
 - This in essence would increase the demand for specific commodities required for electric vehicles.

What are the Underlying Issues?

- This rising demand could also become a cause of concern given the dependency on select rare minerals for inputs towards manufacturing of EV, which in the process may lead to economic-cost escalation.
- Also, as India does not have much reserves of lithium, nickel or cobalt, it has to obtain them from somewhere else where they are mined. It comes at a high social and environmental cost.
 - o For instance, it is estimated that two million litres of water are needed to produce a tonne of Lithium. This deprives indigenous farmers of badly needed water.
- The **semiconductor shortage** which began at the end of 2021 has still not been resolved completely and has hindered multiple industries. A similar challenge can adversely impact India's upcoming EV industry in terms of high price volatility and supply disruptions of these elements.

What Possible Measures can be Taken?

Collaboration for Securing Minerals: Some of the state-run companies can form a joint venture to

secure mineral assets which would be of demand for **mass adoption of EVs by 2030.**

- Multiple Japanese companies are engaging with firms in Australia and Kazakhstan to develop mining projects, in order to reduce dependence on China.
- Indian exploring companies may look for similar international collaborations in this space and also in areas of joint exploration, and refining, and trading of critical minerals.



- Mechanism for Regular Monitoring: A dedicated cell could be created by the government of India towards regular monitoring of availability of rare earths and other critical minerals under the Ministry of Mines.
 - In this context, it is observed that countries like Japan have earmarked a \$1.5-billion fund for developing alternative sources of rare earths, notching up the push for joint venture partnerships.
 - Similarly, USA too in 2019 developed 'A Federal Strategy to Ensure Secure and Reliable Supplies of Critical Minerals' given the trade tensions between US and China.
- Leveraging Quad: A few years ago, the Australian and the US mineral agencies signed a deal to jointly develop a better understanding of their critical minerals' reserves and in the process explore their existence in other parts.
 - India may like to have bilateral engagements under the Quad platform to secure its needs in the years to come.
 - Cooperation with Japan, Australia and the US can also help India to bridge the technology and financial viability gap to boost its Rare Earth Elements (REE) industry.
- South-South Cooperation: India could explore the possibility of formation of an intergovernmental body amongst the Developing South, something akin to OPEC of 1960, to ensure cooperation for the development of its EV industry.
 - This could include Chile, Argentina, Brazil, Cuba in Latin America; Congo, Gabon, Madagascar,

Mozambique, and South Africa in Africa; Indonesia, the Philippines, and Russia, apart from India.

- Need for Efficient Batteries: Work is also needed to ensure that Lithium-ion batteries work efficiently and last longer in India's hot/humid conditions. The government should also mandate recycling 100% of the batteries; battery designs should be re-cycle friendly.
 - This measure is critical because by not extending the life of a battery and not recycling it aggressively, India's energy dependence will shift from West Asia to China (which controls much of the rare earth metals that a battery needs).
 - Also, a bigger step will be to encourage research in India for developing batteries that replace cobalt and nickel with other metals.

Social Media and The Menace of False Information

This editorial is based on "A Twofold Approach to Win the War on Misinformation" which was published in Hindustan Times on 19/05/2022. It talks about the concerns regarding the spread of false information through social media platforms.

Tags: Governance, GS Paper 2, Government Policies & Interventions, GS Paper 3, Role of Media & Social Networking Sites in Internal Security Challenges

Social media platforms have effectively supplanted traditional information networks in India. The relationship between online content, traditional media and political networks is so strong that the messages are propagated effectively to even those who are not yet online.

Many times, **false information**, intentionally or unintentionally, gets transferred through social media that manipulates the beliefs of the people towards a particular community, the government or some ongoing issue.

Public opinion is the currency of democracy, and, therefore, vested interests cannot be allowed to hijack public opinion through the organised dissemination of misinformation.

India has primarily focused on controlling social media platforms through legalistic instruments and threats of criminal liabilities. However, the need is to **locate its regulatory efforts** and bring about a **comprehensive transparency law** to force meaningful disclosures by platforms to **enable a broader community of informed stakeholders.**

What are the Concerns regarding the Spread of False Information?

- > **Red-Herring:** The content moderation-driven approach to disinformation by all major social media platforms is a red herring designed to distract from the far larger problem of amplified distribution of disinformation as part of business models.
- Opacity of Social Media Platforms: Social media platforms are increasingly becoming the primary ground for public discourse over which a handful of individuals have inordinate control.
 - One of the biggest hurdles in being able to curb misinformation is the lack of transparency by social media platforms.
 - o Even when platforms have disclosed certain kinds of information, the data is often not presented in a manner that facilitates easy analysis.
- **Inadequate Measures:** Various social media platforms have been unable to evolve a coherent framework to stop misinformation and have instead responded erratically to events and public pressure.
 - o The absence of a uniform baseline approach, enforcement, and accountability vitiated the information ecosystem.
- Weaponization of False Information: Social media platforms have adopted design choices that have led to a mainstreaming of misinformation while allowing themselves to be weaponized by powerful vested interests for political and commercial benefit.
 - O The consequent free flow of disinformation, hate and targeted intimidation has led to real-world harm and degradation of democracy in India.
 - Misinformation spread through social media applications has been linked to minority hate, entrenched social polarisation, vaccine hesitancy, and real-life violence.
- Digital Media Illiteracy among Children: The National Education Policy 2020 is a missed opportunity to **insert media literacy** in the curriculum.
 - o Although 'digital literacy' is mentioned once in the document, social media literacy is entirely neglected.
 - O This is a serious gap as social media is the primary source of students' literacy.
- Threats due to Anonymity: The most famous reason for anonymity is to be able to speak the truth against vindictive governments or to not let the views be tagged to the real person being spoken about, in the offline world.
 - O While on one hand, this is helpful for someone in sharing their views without any insecurity, it does

more harm in the aspect that the user may spread false information up to any extent without being held accountable.

How is Social Media Mis/Disinformation Affecting Politics?

- > There are three notable effects of social media on our politics, which require deliberation.
 - Social media has led to a dislocation of politics with people weighing in on abstractions online while being disengaged from their immediate surroundings.
 - Social media has led to a degradation of our political discourse where serious engagement has been supplanted by "hot takes" and memes.
 - It has obscured the providence of consequential interventions in our political discourse because of opacity in technology.
- Meaningful politics, especially in democracies, is rooted in local organisation, discussion and negotiation. However, the spread of false information through social media has facilitated a perception of engagement without organisation and action without consequence.

Misinformation v/s Disinformation v/s Mal-information:

- Most of the time Fake news conflates three different notions: misinformation, disinformation, and mal -information.
 - o Misinformations are false information, but when a person conveys it, believes that it is true and shares.
 - O Disinformation is those which are shared intentionally by a person after knowing that it is not true; false information which is intended to mislead.
 - o Information that is based on reality but imposes harm on a person, organisation, or country is termed as mal-information.

What can be Done?

- > Law to Facilitate Transparency: A meaningful framework to combat disinformation at scale must be built on the understanding that it is a political problem.
 - Transparency and regulation need to be brought to bring governance of speech within the ambit of the democratic process.
 - o It is important to bring a comprehensive transparency law to compel relevant disclosures by platforms to facilitate action by a wider group of stakeholders.

- Such a law should include safeguards for user privacy since platforms are a repository of the private information of citizens.
- Creating a Regulatory Body: Bringing governance of speech under State purview is fraught with risks to free speech. It is, thus, proposed to constitute a regulator with statutory powers to lay out broad processes for governance of speech, set transparency standards and audit platforms for compliance; and advisory powers to develop perspective on key misinformation themes especially those with public policy implications.
 - Such a body should be answerable to Parliament and not the Executive.
 - Such a model will increase democratic contest by moving contested speech issues into the political sphere and facilitate transparency of powerful technology platforms.
- Structural Reforms in Platforms: Blanket immunity for platforms as "intermediaries" no longer makes sense since platforms are far more interventionist with user content. Therefore, platform accountability should be linked to their distribution model.
 - In this regime, platforms would either adopt a hands-off approach to content and constrain distribution to organic reach (chronological feed); or exercise editorial choice and take responsibility for amplified content.
 - Also, Platforms must be mandated to default to a chronological feed, allowing users to make an informed choice to opt-in for a curated feed.
- Digital Media Literacy among Children: A strategy that has not received sufficient attention in India is digital media literacy to the citizens, especially school children, to equip them with skills to steer through the information they receive.
 - Hence, technological interventions to tackle misinformation should be complemented with human-centred solutions focused on digital media literacy.
 - Social media platforms should take initiatives in this regard and promote digital media literacy.
 - Also, the NEP 2020 should equip students with social media literacy that would involve the application of critical thinking to the information they are flooded with daily through social media.

The Inherent Benefits of Carbon Farming This editorial is based on "Why carbon is the 'crop' of the future" which was published in The Hindu BusinessLine on 20/05/2022. It talks about why carbon farming is a viable solution for our broken food systems.

Tags: Biodiversity & Environment, GS Paper 3, Environmental Pollution & Degradation, Conservation

It is beyond any doubt that industrial agriculture results in less food out of the ground, with fewer nutrients, less efficiently, more expensively, and with greater environmental devastation than small and organic farming.

Although global trade did pull millions out of poverty, it also left a colonialist imprint on the planet in different ways: with differentiated access to nutritious food, reducing the biodiversity of our diet, injudicious ecological practices like monocropping and systematic erosion of soil and mounting cost of technology, chemicals — exiling the farmers out of their fair share of the progress and most importantly, deepening the climate change crisis.

Carbon farming can be seen as one of the prudent ways to fix our broken food systems.

What is Carbon Farming?

- Carbon farming (also known as carbon sequestration) is a system of agricultural management that helps the land store more carbon and reduce the amount of Greenhouse Gases (GHGs) that it releases into the atmosphere.
- It involves practices that are known to improve the rate at which CO₂ is removed from the atmosphere and converted to plant material and soil organic matter.
- Carbon farming is successful when carbon gains resulting from enhanced land management or conservation practices exceed carbon losses.

What about Agricultural Emissions?

- Agriculture covers more than half of Earth's terrestrial surface and contributes roughly one-third of global GHG emissions.
- According to the Third Biennial Update Report submitted by the Government of India in early 2021 to the UNFCCC, the agriculture sector contributes 14% of the total GHG emissions.
 - Agricultural emissions in India are primarily from the livestock sector (54.6%) and the use of nitrogenous fertilisers (19%).
- Amongst these, GHG emissions from rice cultivation during 2016 accounted for 71.322 million tonnes "CO₂ equivalent", which analysts say might have gone up to 72.329 million tonnes "CO₂ equivalent" during 2018-19.

 Switching to regenerative agriculture practices can reduce it and carbon farming can accelerate this shift.

Why is Carbon Farming a Viable Option?

- Climate Friendly: Carbon farming promises a bold new agricultural business model — one that fights climate change, creates jobs, and saves farms that might otherwise be unprofitable.
 - o In essence, a climate solution, and increased income generation opportunity and ensuring a food security net for the population.
- Optimising Carbon Capture: It is a whole farm approach to optimising carbon capture on working landscapes by implementing practices that are known to improve the rate at which CO2 is removed from the atmosphere and stored in plant material and/or soil organic matter.
 - o Carbon farming can incentivise our farmers to introduce regenerative practices in their agricultural processes helping them shift their focus from improving yields to functioning ecosystems and sequestering carbon that can be sold or traded in carbon markets.
- Farmer Friendly: It not only improves the health of soil but can also result in improved quality, organic and chemical-free food (farm-to-fork models) along with boosted/secondary income from carbon credits for the marginalised farmers.
- Growth in Carbon Market: The total value of the global carbon markets grew by 20% in 2020 — the fourth consecutive year of record growth — and is well on its way in raising a critical mass of investors.
 - o The value of traded global markets for carbon dioxide permits grew by 164% to a record €760 billion (\$851 billion) in 2021.
 - O Carbon thus can effectively prove to be the 'cash crop' of the future for farmers

How Aware is the World about the Significance of Carbon Farming?

- An international initiative called '4 per 1000', launched at the 2015 Paris climate conference, showed that increasing soil carbon worldwide by just 0.4% yearly could offset that year's new growth in CO, emissions from fossil fuel emissions.
- Carbon farming is also big on political agendas and climate manifestos. The US administration has been planning to launch a carbon bank for farmers as part of a plan to fight climate change.
 - o Former US President Donald Trump declared the soil to be the next frontier of the climate change fight.

- The zeal is also found in the **global private sector** with corporate behemoths like McDonald's, Target, Cargill pledging to use funds to support regenerative practices.
 - o 2022 has been the biggest year in carbon capture investment with big tech companies like Stripe, Alphabet, Meta and Shopify announcing \$925 million worth of carbon removal offsets over the next eight years.
 - o This private sector enthusiasm and burgeoning market sentiment has to be matched by public sector boost.
- In India, Meghalaya is currently working on a blueprint of a 'carbon farming' Act to create a prototype of sustainable agriculture model for the entire North-East region.
 - The North-East Region has shown tremendous progress in adopting organic and sustainable agriculture practices; Sikkim became the first State in the world to become fully organic in 2016.

What Steps can be Taken to Encourage Carbon Farming?

- Tapping the Potential of Soil: Soil is one of the most untapped and underutilised defences against climate change and acts as an efficient carbon sink. India should capitalise on it to achieve its Net Zero target and decarbonising pathway.
 - Studies show that soil removes about 25% of the world's fossil-fuel emissions each year and has been the missing link from the globally prescribed carbon management practices and narrative.
- > Legal Backing for Carbon Farming: An extensive and pioneering carbon farming Act with a robust transition plan can effectively demonstrate the idea of creating a carbon sink on working land and farm the way out of climate crisis, improve nutrition, reduce the punishing inequalities within farming communities, alter the land use pattern and provide the muchneeded solution to fix our broken food systems.
- **Direct Incentives for Farmers:** The land sector is key for reaching a climate-neutral economy, because it can capture CO, from the atmosphere.
 - O However, to encourage the agriculture and forestry sectors, it is necessary to create direct incentives for the adoption of climate-friendly practices, as currently there is no targeted policy tool to significantly incentivise the increase and protection of carbon sinks.
- Carbon Credits and Carbon Banks: The farmers can be rewarded through globally tradable carbon credits. Carbon banks can also be created that would buy and sell carbon credits from farmers.

- These credits could then be sold to corporations needing to offset their emissions.
- Paying farmers to restore carbon-depleted soils offers a great opportunity for a natural climate solution and to stabilise global warming below 2°C.
- Collective Participation: For the overall framework of carbon farming to be successful, it would have to include sound policies, public-private partnerships, accurate quantification methodologies and supportive financing to efficiently implement the idea.
 - It requires it to be done at a scale where measurable carbon capture can be achieved along with maintaining healthy soils that absorb and store carbon.

GST and Fiscal Federalism

This editorial is based on "The Business of Federalism" which was published in Indian Express on 21/05/2022. It talks about the challenges that the Goods and Services Tax poses to India's fiscal federalism.

Tags: Indian Polity, GS Paper 2, Federalism, Co-operative Federalism, Separation of Powers, Centre-State Relations

The ongoing discords between the **Centre and states** over **issues ranging from the allocation of financial resources to fixing of Goods and Services Tax (GST) rates** has once again brought to the fore issues pertaining to our federal structure, the resolution of which is essential for the country's growth.

The traditional approach to federalism that sees competition and cooperation at loggerheads is no longer relevant in the post-1990s scenario. A **combination of cooperative and competitive spirit ensures the economic prosperity** and welfare of the nation in an equal and equitable manner.

The rising stature of the Indian economy on the world stage can only be strengthened by a tailored approach to cooperation and competition.

What do We know about Federalism?

- Federalism in essence is a dual government system including the Centre and a number of States. Federalism is one of the pillars of the Basic Structure of the Constitution of India.
- > A Federal theorist **K.C. Wheare** has argued that the nature of Indian Constitution is **quasi-federal in nature**.
 - The Supreme Court, too, in Sat Pal v State of Punjab and Ors (1969), held that the Constitution of India is more Quasi-federal than federal or unitary.

The respective legislative powers of states and Centre are traceable to Articles 245 to 254 of the Indian Constitution.

What are the Recent Efforts to Promote the Spirit of Federalism?

- Recent efforts in this direction include providing greater leeway to states in the functioning of the NITI Aayog, frequent meetings of the Prime Minister with the Chief Ministers and periodic meetings of the President of India with Governors.
- The functioning of "PRAGATI" to review the progress of developmental efforts has also generated the requisite synergy between the Centre and states.

What are the Challenges Posed by States regarding GST?

- > The GST has taken away much of the autonomy available to states and has made the country's indirect tax regime unitary in nature.
- After the introduction of the GST in 2017, state governments lost their independent taxation powers.
 - Liquor and fuel are the only two significant avenues left for states to generate their own tax revenues, without having to seek approval from the Union government, since they are outside the GST regime.
- India's GST is precariously held together by the loose thread of "compensation guarantee", under which states surrendered their fiscal powers in return for guaranteed revenues.
 - However, during the Covid-19 pandemic, the Union government repeatedly violated the compensation guarantees to the States under the GST regime.
 Delay in paying the States their due worsened the impact of the economic slowdown.
 - The GST compensation period expires in June 2022, and despite multiple requests from the States, the deadline has not been extended.

What is the SC's Recent Judgment about Federalism regarding GST?

- Recently, the Supreme Court in a judgment invoking the spirit of "Cooperative Federalism" for the wellbeing of democracy, held that Union and State legislatures have "equal, simultaneous and unique powers" to make laws on Goods and Services Tax (GST) and the recommendations of the GST Council are not binding on them.
 - The apex court's decision came while confirming a Gujarat High Court ruling that the Centre cannot

- levy Integrated Goods and Services Tax (IGST) on ocean freight from Indian importers.
- In simple terms, Parliament and State Legislatures have simultaneous powers to legislate under the GST.

What can be the Way Forward?

- > A Reformed Approach toward States: The Centre could strive to be more conciliatory towards States' concerns and fiscal dilemmas.
 - O The **Council should also meet more often** to nurture the critical fiscal federalism dialogue in the right direction and minimize trust deficits.
 - There are many **pending reforms** that require the Centre to work more cohesively with States to take India's economy forward and lift those left behind - land, labor markets as well as the agrarian sector.
- ➤ Horizontal and Vertical Level Cooperation: Cooperation between the Centre and states is required at both vertical (between Centre and states) and horizontal (among states) levels and on various fronts.
 - o This includes fine-tuning of developmental measures for desired outcomes, developmentrelated policy decisions, welfare measures, administrative reforms, strategic decisions, etc.
- Reforms in GST Council: It may be time already for reform of the GST. What is needed is **statesmanship** at the GST Council even if the Court has said that the Council is a place as much for political contestation as for co-operative federalism.
 - o The Council should transcend political rivalries
 - The States should have the right to dissent in the **Council** and their voice should not be drowned in the pursuit of unanimity in decision-making.

How and Why Should Positive Competition be Promoted?

> How:

- The competitive aspect of federalism can positively be harnessed by encouraging states to adopt each other's best practices. This positive competition can be ensured vertically as well as horizontally.
- Positive efforts of states towards attracting investment can create a conducive environment for economic activities in urban and backward regions alike.
- Healthy competition coupled with a **transparent** ranking system would ensure the full materialization of the vast but least utilized potential of the federal framework.

 Healthy competition among states would also help them innovate and generate the requisite synergies for local businesses.

> Why:

- Adoption of best practices and implementation of reforms at the ground level would positively impact the ease of doing business for MSMEs.
- o This would raise India's manufacturing capacity to the next level and radically transform India's growth story.
- o The rise in economic activities would result in higher GST collection and thereby boost the government's welfare measures.
- O Competition among states along with hand-holding by the Centre has the potential to enable the realization of the goal of a five-trillion economy by 2024.

> Related Initiative:

- To promote positive competition among states NITI Aayog's sector-specific indices have proven to be a great contribution. Such indices are:
 - School Education Quality Index
 - Sustainable Development Goals Index
 - State Health Index, India Innovation Index
 - Composite Water Management Index
 - Export Competitiveness Index



Connecting **Nature With Humanity**

This editorial is based on "Pockets of hope, linking nature and humanity" which was published in The Hindu on 20/05/2022. It talks about the importance of the World Network of Biosphere Reserve (WNBR) and significance of Biosphere Reserves for conservation of biodiversity.

Tags: Biodiversity & Environment, GS Paper 3, Conservation, **Environmental Pollution & Degradation**

Biodiversity is a very prominent feature of planet earth. Without its presence it is not possible to imagine the existence of life on earth. Intergovernmental Science-**Policy Platform on Biodiversity and Ecosystem Services** (IPBES) have releasesd Global Assessment Report on Biodiversity and Ecosystem Services in 2019.

The main goal of this report is to **bring attention** to the loss of biodiversity, climate change, invasive species, over-exploitation of natural resources, pollution and urbanization.

What is the Intergovernmental Science - Policy Platform on Biodiversity and Ecosystem Services (IPBES)?

- It is an International and Intergovernmental agency whose objective is to increase the science-policy interaction for biodiversity and ecosystem services.
- It is basically intended to promote biodiversity conservation and sustainable development.
- The IPBES officially has 137 member Nations. IPBES membership is open to any country that is a member of the United Nations.
- **IPBES** is not affiliated with the **United Nations**. IPBES, on the other hand, receives secretariat services from the United Nations Environment Programme (UNEP)

What is the Global Assessment Report on Biodiversity and Ecosystem Services?

- > The assessment's overarching goal is to determine the current state and trends in biodiversity and ecosystem services.
- It also evaluates the effects of biodiversity and ecosystem services on human well-being, as well as the efficacy of remedies, such as the Strategic Plan for Biodiversity and Aichi Biodiversity Targets.
- > The Report examines trends over the last five decades, presenting a comprehensive view of the interrelationship between sustainable growth and environmental repercussions.

What are Aichi Biodiversity Targets?

- Officially known as "Strategic Plan for Biodiversity 2011-2020", provides a set of 20 ambitious yet achievable targets (divided into 5 sections: A to E), collectively known as the Aichi Targets for biodiversity.
- Strategic Goal A: Address the underlying causes of biodiversity loss by mainstreaming biodiversity across government and society
- Strategic Goal B: Reduce the direct pressures on biodiversity and promote sustainable use.
- **Strategic Goal C:** To improve the status of biodiversity by safeguarding ecosystems, species and genetic diversity.
- **Strategic Goal D:** Enhance the benefits to all from biodiversity and ecosystem services.
- **Strategic Goal E:** Enhance implementation through participatory planning, knowledge management and capacity building.

What is Causing Stress to Earth Carrying Capacity?

> The ecological carrying capacity may be defined as

the maximum number of the species that can be sustained by any ecosystem.

- o The carrying capacity of the ecosystems have increased multiple folds. The availability of ecosystem services will rise as the carrying capacity of the ecosystem increases.
- o **Ecosystem services** can provide benefits only when the health of an ecosystem and conservation of biodiversity remain in focus.
- o The conservation of biodiversity has a direct connection with the pollution control measures of the air, water and soil.
- o The availability of high quality drinking water, enough food and healthy habitats can only be ensured when ecosystem services will continue by **conserving the biodiversity** of the ecosystem without affecting nature's balance.
- > It is our responsibility and certainly in our interest to respect the environment, whether we approach it from an environmental, cultural, or religious perspective.

How does UNESCO Support Biosphere Reserves Ecosystem?

- The World Network of Biosphere Reserves intended to increase the number of biosphere reserves in the globe by establishing new biosphere reserves whenever and wherever is possible.
- The United Nations Educational, Scientific and Cultural Organization (UNESCO) established one of the best mechanisms which is known as the World Network of Biosphere Reserves.
 - The World Network of Biosphere Reserves was created in 1971.
- > Biosphere reserves are basically promoting the cooperation and coexistence of the places where humans live in harmony with nature.
- > The first biosphere reserve was established in Sri Lanka which is known as Hurulu Biosphere Reserve in 1977.
- > **UNESCO** designated India's first biosphere reserve in the blue mountains of the Nilgiris in 2000.
 - The Nilgiri Biosphere Reserves spread across three states Tamil Nadu, Karnataka and Kerala.
- > The World Network of Biosphere Reserves now counts 18 sites from India in the list of Biosphere reserves.
 - O Panna Biosphere Reserve, Madhya Pradesh included in this list in 2020.
- > Glacier ecosystem, lake ecosystem and alpine ecosystem all are present in Bhutan, India and Nepal. South Asia is well blessed with the number of biosphere reserves.

- o The Khangchendzonga Biosphere Reserve, established in 2018. It is blessed with some of the **highest ecosystems** in the world.
- O Khangchendzonga Biosphere reserve inculcates within itself a variety of species of orchids and other species of flora and fauna.
- O The major activities associated with these biosphere reserves are crop production, animal husbandry, fishing, dairy products and poultry farming.
- Nomination of any site to be designated as UNESCO Biosphere Reserve lies with the national government and approved by UNESCO.

What Steps can be taken in Order to Reduce the Stress?

- > Science-based management plans should be the primary focus of the **UNESCO Biosphere Reserves** as per as protection of biological diversity is concerned.
- Scientific research and monitoring for biodiversity conservation, clean energy, climate, environmental education, water conservation and waste management, is essential to protect biodiversity and ecosystem. The aim is to detect changes and find solutions to increase climate resilience.
- Bangladesh, Bhutan, and Nepal are on UNESCO's priority list because they do not have any biosphere reserves. The argument is that with at least one biosphere reserve in each country, will promote the sence of optimism.
- The International Day for Biological Diversity promotes the spirit of biodiversity conservation. Celebration of **Biological Diversity Day** basically revisiting the sense of the resposibility and instigating the the hidden approaches in side us to protect our environment.
- Local solutions and best practices for the conservation and restoration of the species of flora and fauna should be promoted along with the evaluation of sustainable human life and environmental protection.

Sustaining FDI Inflows

This editorial is based on "How to Sustain the Post-Covid Surge in FDI Inflows" which was published in The Hindu BusinessLine on 22/05/2022. It talks about the significance of the growth of FDIs in India and how can India sustain this growth.

Tags: Indian Economy, GS Paper 2, Government Policies & Interventions, GS Paper 3, Liberalisation, Growth & Development

Despite the major slowdown in the global economy induced by the Covid-19 pandemic and the projections of the World Investment Report of expected decline in Foreign Direct Investment (FDI) flows of 30-40%, the resilient Asian economies witnessed favourable FDI flows which were rather higher than the global average.

Additionally, South Asia experienced a robust surge in FDI during this period, with India seeing a 27% rise. Judicious and quick policy initiatives will facilitate more foreign investments and in-turn enhance India's potential as a global manufacturing hub.

What do We know about FDI?

- A Foreign Direct Investment (FDI) is an investment made by a firm or individual in one country into business interests located in another country. FDI lets an investor purchase a direct business interest in a foreign country.
 - o Investors can make FDI in a number of ways. Some common ones include establishing a subsidiary in another country, acquiring or merging with an existing foreign company, or starting a joint venture partnership with a foreign company.
- Apart from being a critical driver of economic growth, FDI has been a major non-debt financial resource for the economic development of India.
 - The Government of India has taken many initiatives in recent years such as relaxing FDI norms across sectors such as defence, PSU oil refineries, telecom, power exchanges, and stock exchanges, among others.

What is the Growth Rate Scenario of FDI Inflows to India?

- An analysis of the recent trends in FDI flows at the global level and across regions/countries suggests that India has generally attracted higher FDI flows and continued to remain among the top attractive destinations for international investors in line with its gradual liberalisation of the FDI policy as part of the cautious capital account liberalisation process.
- In 2017-18, the inflows surpassed \$60 billion for the first time ever and the Department of Promotion of Industry and Internal Trade (DPIIT) put FDI growth at 14% in 2019-20, the highest in four years.
 - o In 2021, the total FDI inflow in 2020-21 was \$81.7 **billion**, up 10% over the previous fiscal.
 - O The FDI in the FY 2021-22 has touched a "highest ever" figure of \$83.57 billion.
- Corporate giants like Silver Lake, Google, Facebook, Foxconn, Saudi Arabia's PIF, General Atlantic Singapore,

Hitachi, Walmart and Catterton are **expected to invest** billions of dollars in the Indian economy

What Factors have Facilitated Higher FDI Inflows?

- 'Make in India' and 'Atmanirbhar Bharat' campaigns coupled with strengthening of India's footing in global supply chains have given momentum to FDI inflows over the past few years.
- The first wave of the Covid-19 pandemic prompted around 1,000 companies to shift their base out of China, with nearly 300 of them being in the areas of medical and electronic devices, mobiles and textiles.
 - For India, companies like Lava International with over 600 employees clarified its intention to shift its base to India from China.
- In most sectors of the economy, India has one of the most liberalised FDI laws in the world, allowing foreign investments of up to 100% through the automatic method.
 - o In its FDI policy, India has taken a negative list approach, stating only those sectors and activities where foreign investment is regulated, whereas sectors not named in the document are open to obtaining 100% FDI under the automatic method.
- Higher FDI inflows have been possible due to the liberal and attractive policy regime for the investors, a good business climate and reduced regulatory framework.

What will be the Impact of these FDI Inflows?

- Considering the impact of the recent surge in the FDI inflows on macroeconomic variables, there will be an estimated increase of 5.68% in India's GDP.
- The industrial output of sectors like metals, construction, machinery and equipment, motor vehicle parts, computer, electronics, and optical products are expected to receive a huge boost relative to others.
- Exports are also expected to witness a rise, because of the FDI-fuelled increase in scale, quality standards and technology transfer, along with enhanced employment opportunities.

How can India Retain this Growth?

- Government policies/decisions are of crucial importance in creating a conducive environment for global investors. The disruptions induced by the pandemic have given opportunities for India to expand its global footprints.
 - The government is striving to strengthen the FDI environment through an array of policy initiatives and reforms at all levels.

- This also has to be complemented by a sound trade policy to boost exports further, encourage inclusive development, and incentivise R&D (research & development) to make our industry globally competitive.
- FDIs have more potential to facilitate the growth of the Indian economy than Foreign Portfolio Investment (FPI). It should be ensured that India remains an attractive, safe, predictable destination for serious, long term investors.
 - A level playing field is necessary if we want continued foreign investments. Sneaking loyalty towards local players should be avoided.

What should be the Main Areas of Focus?

- Concentration to a Few States: FDI has been concentrated in a few Indian states. The rapidly growing states receive 60-70% of FDI inflows into India: Andhra Pradesh, Delhi, Karnataka, Maharashtra, and Tamil Nadu. Even among these states, there is considerable heterogeneity.
 - It is also these very states that are most successful in converting FDI approvals into actual inflows.
 - o Bringing other states into the ambit of FDI inflows should be one of the key focus areas.
- Role of States: The federal structure in India empowers the states to design their own investment policies to attract FDI, along with instituting specific incentives for certain sectors.
 - o For instance, Karnataka has been aggressive in attracting FDI and has outlined a series of policies, such as investment subsidies, exemptions for export-oriented units, and refunds and fiscal incentives for specific industries such as IT, biotechnology, and business process outsourcing.
 - Example of Karnataka can be emulated by other states.
- Equally Focussing Other Important Factors: The other important factors influencing FDI into India are broader economic policies including corporate taxes, trade openness, and other business climate issues.
 - India's progress of liberalising its FDI regime is a necessary but not a sufficient condition to attract significant FDI inflows.
 - With the current international attention on India's tremendous potential for FDI, it would be an opportune time to push for rapid progress on structural reforms to tremendously increase FDI inflows.

Achieving ESG Compliance

This editorial is based on "Taking ESG Reporting to the Next Level" which was published in The Hindu BusinessLine on 25/05/2022. It talks about the significance of ESG compliance by companies and the measures that can be taken to ensure compliance.

Tags: Governance, GS Paper 2, Government Policies & Interventions, GS Paper 3, Growth & Development, Conservation, **Environment Pollution & Degradation**

Traditionally, investment decisions have mainly been driven by financial parameters. However, with growing concerns around climate change, adapting to and mitigating its consequences by transitioning to sustainable models of development (and therefore, investment) have emerged as major concerns on an international scale.

There is an increasing investor focus on sustainability investing, shifting from finance-centric investment models to more socially and environmentally responsible longterm investing trends. As a result, the demand for **Environmental, Social and Governance (ESG) investing** has gained significant traction globally.

The asset size of ESG Funds has grown nearly five times to Rs 12,300 crore over the last couple of years.

What are ESG Goals?

- Environmental, Social, and Governance (ESG) goals are a set of standards for a company's operations that force companies to follow better governance, ethical practices, environment-friendly measures and social responsibility.
 - o Environmental criteria consider how a company performs as a steward of nature.
 - Social criteria examine how it manages relationships with employees, suppliers, customers, and the communities where it operates.
 - o Governance deals with a company's leadership, executive pay, audits, internal controls, and shareholder rights.
- It focuses on non-financial factors as a metric for guiding investment decisions wherein increased financial returns is no longer the sole objective of investors.
- > Ever since the introduction of the **United Nations** Principles for Responsible Investing (UNPRI) in 2006, the ESG framework has been recognised as an inextricable link of modern day businesses.

What do we Know about ESG Funds?

ESG Fund is a kind of **Mutual Fund**. Its investing is used synonymously with sustainable investing or socially responsible investing.

- Therefore, the key difference between the ESG funds and other funds is 'conscience'.
 - o The ESG fund focuses on companies with environment-friendly practices, ethical business practices and an employee-friendly record.
- The fund is regulated by Securities and Exchange **Board of India (SEBI).**

How does ESG Create Value for Corporates and their Stakeholders?

- **Growth in Revenue:** Aligning with the ESG principles helps companies to expand existing markets and provide new avenues for growth as part of their blue ocean strategy.
- **Enhanced Public Image:** ESG-compliant companies have ease of access to resources — natural, financial, **human talent,** etc — at a lower cost.
 - ESG is critical to fund raising and free access to other resources is equally important in countries like India wherein companies face stiff resistance from local communities while taking up new projects in their reserved areas.
- Long-Term Sustainability: Adherence to ESG framework encourages companies to look for more sustainable investment opportunities that creates competitive advantage in the long run.
 - The companies with lower carbon emissions, waste reduction, optimum water-usage, higher employment generation and relatively better disclosures will score high on ESG index.
- Increasing Employee Productivity: Integration of ESG with the company's ecosystem instils a 'purpose-drivenlife' among the employees so as to excel in their jobs.
- **Reducing Costs/Risks:** Fulfilment of ESG norms such as redress of shareholder grievance, human rights and gender diversity of the companies will result in fewer penalties and enforcement actions.

What Initiatives have been taken to Ensure ESG Compliance?

- > One of the initial milestones towards identifying ESG disclosure requirements for companies was the release of the National Voluntary Guidelines on Social, Environmental and Economic Responsibilities of Business (NVGs) in 2011 by the Ministry of Corporate Affairs (MCA).
- In 2012, the SEBI formulated the **Business Responsibility** Reports (BRR) which mandated top 100 listed entities (which was extended to top 500 listed entities in 2015) by market capitalization to file BRR as part of their annual report.

- In 2021, SEBI replaced the existing BRR reporting requirement with a more comprehensive integrated mechanism, the Business Responsibility and Sustainability Report (BRSR).
 - It will be mandatorily applicable to the top 1,000 listed entities (by market capitalization) from FY 2022-23 onwards.
- The BRSR seeks disclosures from listed entities on their performance against the nine principles of the 'National Guidelines on Responsible Business Conduct' (NGBRCs).

How are the Stakeholders Responding to It?

- Indian investors are showing increased interest in ESG compliant companies and investment products and companies are proactively taking steps towards inculcating ESG in their corporate governance strategies.
 - For instance, Tata Consultancy Services revealed plans to reduce its absolute GHG emissions to achieve net zero emissions by 2030.
- In a first of a kind move, the Ghaziabad Municipal Corporation became the first ever civic body in India to issue green bonds listed on the Bombay Stock Exchange (BSE) for an environmentally sustainable project for wastewater reuse.

What can be the Way Forward?

- Role of Policy Makers: The Policymakers shall aim to gradually build a more comprehensive and extensive ESG reporting regime, with the aim of encompassing all listed as well as unlisted entities and bringing them within the purview of the ESG reporting framework.
 - An increasing demand for ESG investing means a growing need for adequate disclosure and reporting mechanisms to be put in place to keep pace with the changing investing trends leaning towards goals of long-term sustainable returns, by incorporating risk assessment and mitigating measures of environmental, social and governance challenges.
- Standardised ESG Parameters: The quantitative and standardised disclosures on ESG parameters would ensure a more holistic approach, providing stakeholders with both financial and non-financial information and concise communication about how an organisation's strategy, governance, performance and prospects will create value over time, in line with the objective of seeking greater transparency on sustainability issues.
- Role of Investors and Companies: Investors should not only be oriented towards securing increased financial returns but also look forward to align their portfolios with sustainable development.

- Integrating ESG disclosures with corporate governance practices of companies is becoming extremely consequential from an investment standpoint as it plays a significant role in assessing the valuation of companies.
- O Implications of not taking ESG factors into consideration in business strategy/policies may result in business processes becoming redundant in future, due to legal and regulatory changes which might forbid particular ways of doing business, thereby reducing its viability in the eyes of investors.

What other Challenges need to be Addressed?

- > The lack of standardisation of reporting requirements across borders may pose difficulties in harmonising ESG principles, frameworks and considerations.
- The other challenges relating to transparency, consistency, materiality and comparability of ESG standards may also pose roadblocks in the seamless implementation of ESG reporting framework ahead.
- Although ESG is making its way into mid-sized and small companies, these smaller businesses may be constrained from doing more than the minimum on ESG because of high capital costs and/or lack of expertise in implementing such measures.
- These concerns must be addressed in order to formulate an effective and efficient mechanism of ESG reporting in future.

Food Security & Current Scenarios

This editorial is based on "Climate Change Threatening Food Security" which was published in The Hindu BusinessLine on 24/05/2022. It talks about how food security is related to the changes that are taking place globally along with the measures that can be taken to tackle this situation.

Tags: Social Issues, GS Paper 1, Food Security, GS Paper 2, Poverty, Issues Relating to Poverty & Hunger, GS Paper 3, Buffer Stocks & Food Security, UPSC, IAS

The unexpected Russia-Ukraine war in Europe disrupted all the supply chains and sparked shortages of everything from wheat to barley, edible oils, and fertilisers. However, the more profound, long-term concern is climate change as well as the impacts that will affect crops and food self-sufficiency as the temperature rises.

The government also understands that in the wake of the **Covid-19 pandemic** people's spending power has

fallen acutely and for some, hunger is an ever-growing distress. Hence, the government has also extended the free-ration scheme for six months till end-September 2022.

Looking at the larger canvas, India, as the thirdbiggest greenhouse gas emitter and one of the most vulnerable countries to climate change, has a serious interest in making economic growth less carbon intensive.

How is Climate Change Related to Food Security?

- Climate Change and Food System Interlinks: The climate crisis impacts all parts of the global food system — from **production to consumption**.
 - o It destroys land and crops, kills livestock, depletes fisheries, and cuts off transport to markets which further impacts food production, availability, diversity, access, and safety.
 - At the same time, food systems also impact the environment and are a driver of climate change. Estimates show that the food sector emits around 30% of the world's greenhouse gases.
- > Global Issue: Along with India and Pakistan many other countries are having extreme heat events. France experienced record temperatures of 30-35°C on several days in May 2022.
 - o Also, rainfall was down by a third from normal and this would impact winter cereals like wheat and barley.
- Decline in Grain Output: Other parts of the world too, like Canada and the US, have experienced unusually dry, warm weather over the last two-three years.
 - o The other big uncertainty is whether La Nina will go into the third year and further hit grain output in America.

What is the Current Situation of Climate Change & Food Security?

- > The Indian Meteorological Department (IMD): It had declared March 2022 the hottest month since record-keeping began 122 years ago.
- **Consistently Above Average Temperature:** According to research, temperatures were consistently rising 3°C-8°C above average, breaking many decadal and some all-time records in several parts of the country.
 - o India experienced around 300 forest fires near the month of April 2022.
 - o It also offered some predictions about the future heat waves in the subcontinent.
- **Extreme Weather and Its Impact:** Extreme weather events that were once supposed to occur once-in-100 years, are now 30 times more likely than before (or between every three-to-five year).

- O Also, March 2022 was one of the driest recorded months, and 2022 April's rainfall was also way below normal in north India's crop-growing regions.
 - In parts of Kerala, unseasonal rains forced cultivators to wade through watery fields to harvest paddy which results in low-quality crops.
- Overseas Sales Ban: The extreme heat wave coupled with the extremely low rainfall affected the growth of wheat in much of India's grain basket of Punjab, Haryana, and Western Rajasthan, and Uttar Pradesh.
 - O Crop yields are down by 20% and that led to the government withdrawing its offer to "feed the world" as the spot prices for export wheat had risen as much as 60% month-on-month but eased after the government's overseas sales ban of wheat.

What is the Impact of the Russia-Ukraine War on Food Security?

- **Price Inflation:** A crucial portion of the world's wheat, corn, and barley is trapped in Russia and Ukraine because of the war, while an even larger portion of the world's fertilisers is stuck in Russia and Belarus.
 - The result is that **global food and fertiliser prices** are rising. Since the invasion, wheat prices have increased by 21%, barley by 33%, and some fertilisers by 40%.
- Impact on Fertiliser Markets: Sanctions have also hit Russia's closest ally, Belarus, a leading producer of potash-based fertiliser, critical for many major crops, including soybeans and corn.
 - According to a report, the direct impact of the war on fertiliser markets will first be felt in the foodproduction seasons in India and Brazil.
- Surge in Fuel Prices: The Russia-Ukraine conflict is responsible for rising fuel prices because supply chains, particularly those of crude oil, have been disrupted which raises even more pressure on the already stressed global supplies and low storage levels around the world.

How can We Ensure Food **Security Amid Changing Climate?**

- **Technology Development:** Government can develop new seeds and improve the technology which will help to fix the problem of grain storage, improve irrigation coverage, make more effective use of fertiliser and manage soil better.
 - o It's also required to make agriculture economically viable and profitable.
- Building Resilience for the Poor: Adaptation and resilience-building for poor and vulnerable communities are critical for food security.

- O Considering the fact that the adverse impacts of climate extremes on people and nature will continue to increase with rising temperatures, there is a strong emphasis on the urgency of scaling up action and support (finance, capacitybuilding, and technology transfer), to enhance adaptive capacity, strengthen resilience and reduce vulnerability to climate change in line with the best available science.
- Sustainable Food Systems: Sustainability has to be achieved in production, value chains, and consumption. Climate-resilient cropping patterns have to be promoted. Instead of giving input subsidies, cash transfers can be given to farmers for sustainable agriculture.
- Multi-Pronged Approach for Tackling Climate-Hunger Crisis: Creating resilient livelihoods and food security solutions by protecting and improving the livelihood of vulnerable communities.
 - Promoting a resilient agriculture sector by creating sustainable opportunities, access to finance, and innovation for small-holder farmers, with climate information and preparedness.
 - Building capacity and knowledge of civil society and governments for vulnerability analysis to increase food security by addressing the link between food security and climate risk.
- Role of India: India has a huge role to play with its ongoing and now substantial policy work at the national and state levels.
 - It has to transform its food systems to make them more inclusive and sustainable for higher farm incomes and nutrition security.
 - Diversification of cropping patterns towards millets, pulses, oilseeds, and horticulture is needed for more equal distribution of water, and sustainable and climate-resilient agriculture.
- Adaptation Finance: The recent pledges made by the developed countries on enhancing climate finance to support adaptation in developing countries is a welcome gesture.
 - However, the current climate finance for adaptation and base of stakeholders remains insufficient to respond to worsening climate change impacts.
 - Multilateral development banks, other financial institutions, and the private sector shall enhance finance mobilization to deliver the scale of resources needed to achieve climate plans, particularly for adaptation.

Conclusion

With progress made on renewable installations, the

adoption of Electric Vehicles (EVs), and turning India into a green energy powerhouse, the Indian Government is making a start. At the same time, it is also an urgent need to lift millions out of poverty and it is mandatory to address this situation now as declining agricultural productivity will result in higher food prices and will mean more economic hardships.

Women and Nutrition

This editorial is based on "Diversifying Plates for Girls" which was published in The Hindu on 26/05/2022. It talks about how the women-centric issues are developing in the society as well as the current situation of the same along with the measures that can be taken to improve the situation.

Tags: Social Justice, GS Paper 2, Issues Related to Women, Education, Social Empowerment, Gender, Government Policies & Interventions, Government Policies & Interventions, UPSC, IAS

As per multiple studies, adolescence is a nutritionally demanding phase of life. Even though both adolescent boys and girls face emotional changes during this period, girls face more physiological demands as compared to the boys and thus require a higher intake of macro and micronutrients.

However, in society, women are traditionally discriminated against and excluded from political and family-related decisions. Despite their daily contribution to support their families, their opinions are rarely acknowledged, and their rights are limited.

Society does indeed recognize many women's rights, including the rights to political involvement, family allowance, and setting up a business. Nevertheless, in rural areas, poverty and a lack of information represent real barriers to women's independence and empowerment.

What are the Various Issues Related to Women?

- > Female Infanticide and Foeticide:
 - o India has one of the highest rates of female foeticide in the world.
 - Female foeticide is due to strong son preference, the practice of dowry, and the patrilineal necessity of heir.
 - The census of 2011 has recorded the lowest ever sex ratio of 914 in the age group 0-6 years with 3 million missing girls; from 78.8 million in 2001 to 75.8 million in 2011.

> Child Marriage:

 Each year, at least 1.5 million girls under 18 get married in India, which makes it home to the largest

- number of child brides in the world accounting for a third of the global total. Nearly 16% of adolescent girls aged 15-19 are currently married.
- o While child marriage has declined, it has been marginal: from 27% in 2015-16 to 23% in 2019-20, according to National Family Health Survey (NFHS) 5.

Education:

- O Girls are encouraged and engaged more in household work and drop out of school at an early age.
 - A study by the International Centre for Research on Women has found that girls out of school are 3.4 times more likely to be married or have their marriage already fixed than girls who are still in school.

> Health and Mortality:

- O Girls in India face discrimination both inside their homes and outside in their communities. Inequality in India means unequal opportunities for girls.
- O Under-five mortality for girls in India remains 8.3% higher than for boys. Globally this is 14% higher for boys.

Malnutrition:

- o Both boys and girls are almost equally likely to be undernourished. For the girls, the nutritional intake is relatively inferior both in terms of quality and quantity. The health of the girls also suffers due to the additional burden from early and multiple pregnancies.
- O Due to a patriarchal society, boys are given relatively more nutritious food as they are deemed breadwinners of the family, especially if the family is poor and is not in a position to provide nutritious food to all the children.
- o The poor nutritional status of women during the reproductive period is responsible for the undernutrition of children.
- **Domestic Violence: Violence against women** continues to be an obstacle to achieving equality, development, and peace as well as to the fulfillment of women and girls' human rights.
- Household Inequality: Household relations show gender bias in infinitesimally small but significant manners across the globe, more so, in India e.g., sharing the burden of housework, childcare and menial works by so-called division of work.

What is the Current Situation of Women's Health?

Growth in Risk of Anaemia: The National Family Health Survey (NFHS)-5 data (2019-20) show an

- increase in anaemia among adolescent girls by 5% when compared to NFHS-4.
- Pre-Pandemic Outcomes: The Comprehensive National Nutrition Survey 2019 shows that even before the pandemic, consumption of diverse food groups among adolescents was low.
- Post-Pandemic Outcomes: The fallout of Covid-19 has further worsened dietary diversity, especially among women, adolescents and children.
- According to a study by the Tata-Cornell Institute for Agriculture and Nutrition, women's dietary diversity in India declined by 42% during Covid-19 lockdowns as they consumed fewer fruits, vegetables, and eggs.
- Reduction in Supply of Nutrition Services: The lockdowns also led to the loss of mid-day meals and interruptions in Weekly Iron Folic Acid Supplementation (WIFS) and nutrition education in schools for adolescent girls.
 - This was compounded by challenges in providing nutrition services to out-of-school adolescent girls which further increased their vulnerability to poor nutrition outcomes.
- Need for Dietary Diversity: Adolescence is the window of opportunity where practices of dietary diversity can be built to correct nutritional deficiencies and replenish the body with much-needed nutrients, especially for girls.
- Micronutrient Deficiencies: Currently, 80% of adolescents suffer 'hidden hunger' due to micronutrient deficiencies. The trend is more prevalent in girls as they already suffer multiple nutritional deprivations.
 - o It is **required to strengthen the initiatives** to address deficiencies of not just iron and folic acid, but also vitamin B12, vitamin D, and zinc.

What are the Women-**Centric Findings of NFHS-5?**

> Underage Marriages:

- o The national average of underage marriages has come down.
- o According to NFHS-5, 23.3% of women surveyed got married before attaining the legal age of 18 years, down from 26.8% reported in NFHS-4.
- O The figure for underage marriage among men is 17.7% (NFHS-5) and 20.3% (NFHS-4).

O Highest Surge:

- The rate has increased in **Punjab**, **West Bengal**, Manipur, Tripura and Assam.
- Tripura has seen the largest jump in marriages for women from 33.1% (NHFS-4) to 40.1%, and from 16.2% to 20.4% among men.

- Highest Rate of Underage Marriages:
 - West Bengal, along with Bihar, remains one of the states with the highest rate of underage marriages.
- Lowest Rate of Underage Marriages:
 - J&K, Lakshadweep, Ladakh, Himachal Pradesh, Goa, Nagaland, Kerala, Puducherry and Tamil Nadu.
- > Teenage Pregnancies: Teenage pregnancies are down from 7.9% to 6.8%.
- > Domestic Violence Against Women:
 - Overall: Domestic violence has come down marginally from 31.2% in 2015-16 to 29.3% in 2019-21.
 - Highest and Lowest (States):
 - Domestic violence against women is highest in Karnataka at 48%, followed by Bihar, Telangana, Manipur and Tamil Nadu.
- Women's Empowerment: Women's empowerment indicators portray considerable improvement at all India level and across all the phase-II States/UTs.
 - Significant progress has been recorded between NFHS-4 and NFHS-5 in regard to women operating bank accounts from 53% to 79% at all-India level.
 - More than 70% of women in every state and UTs in the second phase have operational bank accounts.
- Anaemia: The incidence of anaemia in women (53.1 to 57%) and men (22.7 to 25%) has worsened in all States of India (20%-40% incidence is considered moderate).
 - Barring Kerala (at 39.4%), all States are in the "severe" category.

What can be the Way Forward?

- Integrated Efforts for Better Health Services: The NFHS findings are a reminder of the urgent need to close gaps in girls' education and address the poor health status of women.
 - O Current times require integrated and coordinated efforts from all health institutions, academia and other partners directly or indirectly associated with the health care services to make these services accessible, affordable and acceptable, especially for those who can't easily afford them.
- Promoting Technology-Based Services among Women: In the next few years, the combination of mobile technology, banking, education and women's economic empowerment will be significant drivers to address informal discriminatory norms.
 - Although the percentage of women using mobile, internet and banking facilities has increased, this is still not at par with those of men.

- There should be sufficient stress on promoting and teaching the use of such facilities to women as availability and utilization of such resources is also an indicator of empowerment among women.
- Need to Resolve the Issues Together: Crime against women cannot be resolved in the court of law alone. A comprehensive approach & changing the entire ecosystem is what is required.
 - All the stakeholders need to get their act together, including Law makers, police officers, forensic dept, prosecutors, judiciary, medical & health dept, NGOs, and rehabilitation centers.
- Addressing Discriminatory Social Norms: To empower women and ensure gender justice, it is imperative to address harmful practices, such as child marriage and gender-biased sex selection.
 - There is a need to enhance the value of women and girls by working on transforming unequal power relations, structural inequalities and discriminatory norms, attitudes and behaviours.
 - Also, it is important to engage with men and boys, particularly in their formative years, to promote positive masculinity and gender-equal values.
- Need Inclusion of Diverse Diet Sources & Nutrition Counselling: Along with continued service delivery of WIFS, the government's health and nutrition policies need to emphasise on strong compliance to diverse diets and physical activities. This includes locally sourced fruits and vegetables, seasonal diets, and the inclusion of millets.
 - This further needs to be supplemented by strengthened nutrition counselling for adolescent girls through community workers' home visits, by building a strong ecosystem in schools to promote healthy habits and diets, virtual counselling, and comprehensive nutrition counselling through community-based events and Village Health, Sanitation and Nutrition Days.
- Improvisation of Policy Interventions: An integrated approach is needed along with women-centric policymaking where women are not treated as passive beneficiaries but are seen as potential contributors to society.
 - Reformative steps such as the recent amendment of increasing the legal age of marriage for women from 18 years to 21 years. An integrated approach is needed along with women-centric policymaking where women are not treated as passive beneficiaries but are seen as potential contributors to society.

Conclusion

Along with all the policies and interventions, it is

equally crucial to ensure that girls remain in school or formal education, their safety is ensured, and their health and nutrition are prioritized. Only then can such measures provide opportunities for girls to improve their nutritional and health outcomes.

IPEF and Opportunities for India

This editorial is based on "The Indo-Pacific Economic Bloc Offers India A New Opportunity" which was published in Livemint on 26/05/2022. It talks about the significance and the possible challenges related to the recently launched Indo-Pacific Economic Framework (IPEF).

Tags: International Relations, GS Paper 2, Groupings & Agreements Involving India and/or Affecting India's Interests, Bilateral Groupings & Agreements, India and its Neighbourhood

While China is indulged in building strong trade & investment partnerships throughout the Indo-Pacific region to further its strategic interests, the US at the recently held Quad Summit in Tokyo launched the Indo-Pacific Economic Framework (IPEF) to offer the region better alternatives to fulfil its developmental goals.

IPEF will boost outreach in the Quad Plus format and will provide a new platform for regional economic cooperation based on internationally accepted and transparent benchmarks.

For India, which is neither part of the Regional Comprehensive Economic Partnership (RCEP) nor the **Comprehensive and Progressive Agreement for Trans-**Pacific Partnership (CPTPP), the initiative offers a significant opportunity to ramp up its trade and economic engagements in the region.

What is the IPEF?

- Touted as a substantial step by the U.S. as part of its decade-old "pivot to Asia", the framework is a declaration of a collective desire to make the Indo-Pacific region an engine of global economic growth.
 - o It aims to strengthen economic partnership among participating countries to enhance resilience, sustainability, inclusiveness, economic growth, fairness, and competitiveness in the Indo-Pacific region.
- The IPEF was joined by India, Japan and Australia, and going beyond the Quad, also by 10 ASEAN countries countries, South Korea and New Zealand.
 - o The IPEF was launched with a dozen initial partners who together represent 40% of the world GDP.
- The IPEF framework has four pillars:

- Supply-chain resilience
- O Clean energy, decarbonisation & infrastructure
- Taxation & anti-corruption
- Fair & resilient trade.

Why is this IPEF Significant?

- Countering China: China not being a member gives the group a distinct geopolitical flavour since all its members share worries about China's muscular nationalism and expansionist ambitions.
- **Economic Cooperation & Integration:** It will produce many immediate benefits on the economic front in terms of cooperation in investment and technology development for clean energy.
 - It could also become the foundation for longer term economic integration of like-minded countries.
- Opportunity for India: India's joining of IPEF is a strong statement of commitment to Indo-Pacific goals, and to broadening regional economic cooperation, particularly after it walked out of the 15-nation RCEP.

What Challenges may Emerge?

- Common Grounds for Countries: U.S. officials have made it clear that IPEF is not a Free Trade Agreement; nor will it discuss tariff reductions or increasing market access, raising questions about its utility.
 - The four pillars also lend themselves to some confusion, drawing into question whether there is enough common ground among the 13 countries (that are part of very different economic arrangements) to set standards together, or be open to issues that vary for each country.
- > India's Traditional Positions: Progress in some of the areas identified under the IPEF may involve many departures from India's traditional positions.
 - o It should not be the case that **India's negotiators** simply accept what is demanded by advancedcountry participants.
- **Taxation:** Tax provisions are another element of the IPEF that could pose problems. There is a tendency to take taxation as a sovereign function and therefore not subject it to negotiation.
- Unheard Views of Businesses: The views of Indian businesses that are potentially competitive globally are often not heard. The voices that are heard are of businesses that are afraid of competition and happy to lobby for protectionism to survive.
 - o Indian business also needs to be mobilised in support of the new integration.
- **Complex Negotiation Process:** Trade negotiations involve multiple ministries, which then engage in

- **cumbersome inter-ministerial consultations**. The **negotiations are too complex to be handled** by individual ministries acting in silos inevitably burdened by precedence.
- Credibility of IPEF: Given the fact that the U.S.'s previous initiatives (the Blue Dot Network and the Build Back Better World (B3W) Initiative) have made little headway in changing the region's infrastructural needs, the IPEF faces a credibility challenge.

What Should be the Way Ahead?

- Establishing Common Standards: The immediate focus should be on establishing the common standards, which could form the basis of deeper integration in the future.
 - Such standards will cover labour rights, environmental standards, protection of intellectual property rights and rules covering the digital economy.
- Balancing Self-Reliance and Globalisation: The government has repeatedly clarified that 'Atmanirbharta' (self-reliance) does not mean isolation and protectionism.
 - Also, India has always expressed its desire to attract foreign investment and become part of global supply chains.
 - This is the right approach and building reliable supply chains is an explicit part of the IPEF agenda.
- Managing Taxation Issue: India should initiate an internal review of its tax administration, involving experts and the Department of Revenue to come up with suitable changes.
 - This would add to India's attractiveness as a trading partner and as a destination for investment, especially in new supply chains.
- Addressing Tech-related Issues: Digital trade and e-commerce is another critical area included under the IPEF. Given India's comparative advantage in software development and application, it would be highly desirable to evolve an agreed set of rules that could be applied across like-minded countries.
 - There are many contentious issues here such as issues of transparency, requirements of fair competition and the ownership & localization of personal data.
 - A constructive role must be played in evolving a global consensus.
- Simplifying Trade Negotiations: Considering the complex trade negotiation process, there is a need for an empowered trade negotiator to consult with concerned ministries and report to the Prime Minister and key ministers with an assessment of pros and cons.

 The NITI Aayog should be mobilised to conduct broad consultations and elicit the opinions of stakeholders, including state governments.



Digitisation of Indian Judiciary

This editorial is based on "Justice, A Click Away" which was published in Indian Express on 28/05/2022. It talks about the need for bringing digital methods to deliver justice and the challenges associated with it.

Tags: Indian Polity, GS Paper 2, Judiciary, E-Governance

The Covid-19 restrictions provided a major thrust to the digitisation of Indian courts. The judiciary, led by the **Supreme Court** and the High Courts, adopted **e-filing for urgent matters** and conducted frequent hearings over video conferencing.

Digitisation, for the Indian judiciary, presents a golden opportunity to reduce the pendency of a plethora of cases and preserve the decade-old documents.

Hence, it is imperative that the use of digital technology be discussed to better utilise its potential, particularly in terms of digitisation of court records, e-filing of cases and their virtual hearing, live streaming of court proceedings.

The Advent of Technology in Judiciary

When did it Begin?

- In India, e-governance in the field of administration of justice began in the late 1990s, but it accelerated after the enactment of the Information and Technology Act, 2000.
- As the 21st century began, the focus was on digitising the court's records and establishing **e- courts** across the country.
 - In the year of 2006, e-courts were launched as a part of the National e-Governance Plan (NeGP).

What Steps have the Courts
Taken for Digitisation of Judiciary?

- The Allahabad High Court is a guiding example in this regard. As the Chief Justice of Allahabad High Court (HC), Justice D Y Chandrachud conceptualised and initiated the project to digitise approximately one crore case files in one year.
- The hearing of matrimonial cases through videoconferencing was approved by the Supreme Court in the matter of Krishna Veni Nagam v Harish Nagam (2017). However, the direction was short-lived.
- In 2018, the Supreme Court allowed the live-streaming of cases of constitutional and national importance

on the basis of the judgement in Swapnil Tripathi vs Supreme Court Of India, 2018.

- o The livestreaming of court proceedings is a step towards ensuring transparency and openness.
- O The Gujarat HC in July 2021 became the first court in the country to livestream its proceedings.
 - It was emulated by the HC of Karnataka, Odisha, Madhya Pradesh and Patna.
- The latest Vision Document for Phase III of the e-Courts **Project** was introduced during the Covid-19 pandemic to address the judiciary's digital deprivation.
 - o It envisages an infrastructure for the judicial system that is 'natively digital' and reflects the effect that the pandemic has had on India's judicial timeline and thinking.
- Recently, the Law Minister has said that for implementing phase two of the eCourts project, there is a need to adopt new, cutting edge technologies of Machine Learning (ML) and Artificial Intelligence (AI) to increase the efficiency of the justice delivery system.
 - o To explore the use of AI in the judicial domain, the Supreme Court of India has constituted an **Artificial Intelligence Committee.**

Why is Digitisation of Judiciary a Need?

- Difficulty in Maintaining Physical Records: Not only a large space is required to store so many files, it is also quite difficult to manually preserve the decades-old documents.
 - o It has been observed that cases are adjourned simply because affidavits filed several years ago were not restored with the record or were not traceable.
- **Acquittal of Convicts:** Another purpose is to ensure that these files are traceable electronically as and when required. The consequences of missing court records are grave.
 - o In many old cases, criminal records are found to go missing thereby leading to the acquittal of the accused.
 - o In State of Uttar Pradesh v. Abhay Raj Singh, it was held by the Supreme Court that if court records go missing and re-construction is not possible, the courts are bound to set aside the conviction.
- Delays in Cases: The time consumed in summoning records from the lower courts to the appellate courts is one of the major factors that cause delays in cases.

What Challenges are being Faced in the Digitisation of Judiciary?

Connectivity Issues: Internet connectivity issues and the **need for a well-equipped space** where lawyers can

- conduct their cases are some of the major problems requiring attention.
- Lawyers in semi-urban and rural districts find online hearings challenging, mostly due to connectivity issues and an unfamiliarity with this way of working
- **Digital Literacy:** Many judges, court staff and lawyers are not well-versed with digital technology and its benefits.
- Privacy Concerns: With increasing digitisation, especially of court records, privacy concerns are likely to **be at the forefront** of judicial and public deliberations in the coming years.
- Hacking and Cybersecurity: On the top of technology, cyber-security will be a huge concern too. The government has initiated remedial steps to address this problem and formulated the Cyber Security Strategy.
 - O However, the practical and actual implementation of the same remains a challenge.

Other Challenges:

- The digitisation of courts over the last decade has been singularly focussed on individual litigants, with court websites designed to allow access to individual cases. There is no mechanism for a system-level examination of the judiciary.
- Deployed with adequate planning and safeguards, technological tools can be a game changer. However, technology is not per se value-neutral — that is, it is not immune to biases. Power imbalances need to be checked upon.

What Steps can be Taken to **Promote the Digitisation of Judiciary?**

- Role of Judges and Lawyers: Political will and the support of judges and lawyers are necessary for the digitisation process to succeed.
 - The need of the hour is for them to be made aware of the associated technologies and receive adequate training.
 - o Conducting training sessions to familiarise the Judges with the e-courts framework and procedure can give a huge impetus to the successful running of e-courts.
- Virtual Hearing in Certain Cases: Virtual hearings cannot be a substitute for physical court hearings in all cases.
 - O However, in certain categories of cases as identified by the court administration, virtual hearing should be made mandatory.
- **Regulation of Technology Usage:** As the technology grows, concerns about data protection, privacy, human rights and ethics will pose fresh challenges and hence,

will require great self-regulation by developers of these technologies.

- It will also require external regulation by the legislature through statute, rules, regulation and by the judiciary through judicial review and constitutional standards.
- Training: The government must make dedicated efforts in the training of personnel to maintain all the e-data.
 - These include maintaining proper records of e-file minute entries, notification, service, summons, warrants, bail orders, order copies, e-filing etc. for ready references.
 - Creating awareness about e-courts and technologies in the judiciary through seminars can help bring to light the facilities and the ease that such initiatives can facilitate.

Building A Stronger BRICS

This editorial is based on "Building Peace and Prosperity with Strong BRICS" which was published in The Hindu on 30/05/2022. It talks about the challenges associated with the effective functioning of the BRICS grouping and suggests possible areas of cooperation.

Tags: International Relations, GS Paper 2, Important International Institutions, Groupings & Agreements Involving India and/or Affecting India's Interests, Regional Groupings

Sixteen years after its creation, BRICS has become an important platform for win-win cooperation among China, India, Russia, Brazil and South Africa, and a significant force for the evolution of international order, the improvement of global governance and the promotion of common development.

Although the grouping has succeeded up to a point, it confronts multiple challenges such as **conflicts** within the member countries or the **China-centricity** of the grouping.

With China taking over the BRICS chairmanship this year, it is even more important for the BRICS partners to press ahead with cooperation in geopolitics, security, economy & finance, people-to-people exchanges, public health and other realms.

What do We need to Know about the BRICS?

BRICS is an acronym for the grouping of the world's leading emerging economies, namely Brazil, Russia, India, China, and South Africa.

- In 2001, the British Economist Jim O'Neill coined the term BRIC to describe the four emerging economies of Brazil, Russia, India, and China.
 - South Africa was invited to join BRIC in December 2010, after which the group adopted the acronym BRICS.
- The grouping was formalised during the first meeting of BRIC Foreign Ministers' in 2006.
- The BRICS brings together five of the largest developing countries of the world, representing 41% of the global population, 24% of the global GDP and 16% of the global trade.
- During the Sixth BRICS Summit in Fortaleza (Brazil) in 2014, the leaders signed the Agreement establishing the New Development Bank (NDB - Shanghai, China).
 - They also signed the BRICS Contingent Reserve Arrangement to provide short-term liquidity support to the members.

Why must Engagement be Strengthened within the BRICS?

- The world today witnesses increasing factors of instability, uncertainty and insecurity.
 - It is of great significance for the BRICS nations to reach consensus and outcomes on multiple important issues concerning global security and development.
- A stronger BRICS will strengthen solidarity and cooperation in the face of challenges with firm conviction, and take real actions to promote peace and development, and uphold fairness and justice. BRICS will inject more strength into global development.

What are the Challenges Associated to BRICS?

- Marred by Various Issues: Group has seen conflicts such as China's aggression in eastern Ladakh which brought India-China relations to their lowest point in several decades.
 - There is also the reality of the strained relations of China and Russia with the West, and of serious internal challenges preoccupying both Brazil and South Africa.
 - On the other hand, China's image at global level has also been tarnished due to the Covid-19.
- Heterogeneity: It is claimed by critics that heterogeneity (variable/diverse nature of countries) of the BRICS nations with its diverse interests possess a threat to the viability of the grouping.
- China Centric: All the countries in the BRICS group trade with China more than each other, therefore it is blamed as a platform to promote China's interest.

- Balancing trade deficit with China is a huge challenge for other partner nations.
- Not Been Effective: The five-power combine has succeeded, albeit up to a point. However, China's economic rise has created a serious imbalance within BRICS.
 - O Also the group has **not done enough to assist** the Global South to win their optimal support for their agenda.

What can be the Possible **Areas of Cooperation within BRICS?**

- Cooperation Within the Group: BRICS need to shed the centrality from China and create a better internal **balance**, reinforced by the urgent need for diversification.
 - o For BRICS to remain relevant over the next decades, each of its members must make a realistic assessment of the opportunities and inherent limitations.
 - The grouping shall also explore the 'BRICS plus' cooperation at more levels and in a wider scope.
 - This will increase BRICS countries' representation and influence and make greater contributions to world peace and development.
- **Upholding Universal Security:** BRICS countries should be builders of universal security. Seeking one's own security at the expense of others' will only create new tensions and risks.
 - o It is important to respect and guarantee the security of every country, replace confrontation with dialogue and partnership, and promote the building of a balanced, effective and sustainable regional security architecture.
 - Also, it is equally important to strengthen political mutual trust and security cooperation, maintain communication and coordination on major international and regional issues and accommodate each other's core interests and major concerns.

- Securing Economic Interests: BRICS countries should be contributors of common development.
 - o Facing the rising tide of de-globalisation and the increase of unilateral sanctions, BRICS countries should enhance mutually-beneficial cooperation in supply chains, energy, food and financial resilience
 - O Also, it will be useful for BRICS to develop an institutional research wing, along the lines of the **OECD**, offering solutions which are better suited to the developing world.
- Public Health Governance: BRICS countries should fully leverage their respective strengths, and jointly promote the development of global health governance in a direction in favour of developing countries.
 - o India's vision of 'One Earth, One Health' contributes to multilateral cooperation on public health.
 - O The countries should make good use of the **BRICS** Vaccine Research and Development Centre, establish a BRICS early warning mechanism for preventing large-scale infectious diseases, and provide high-quality public goods for global health governance cooperation.
- A Global Governance Philosophy: Global challenges are emerging one after another. Coping with these challenges requires coordination among global actions.
 - Safeguarding the international system is essential while ensuring that international affairs have participation by all, international rules are formulated by all, and development outcomes are shared by all.
 - o BRICS should embrace a global governance philosophy that emphasises extensive consultation, joint contribution and shared benefits, enhance unity and cooperation with emerging markets and developing countries, and increase the voice in global governance.

Drishti Mains Questions

- "India's neighbourhood has always held a special place in its diplomatic outreach. Attaining selfsufficiency in semiconductor manufacturing can mean collective growth of the South Asian region." Comment.
- 2. Discuss the significance of integrating India's MSMEs into the Global Value Chains and suggest the measures that can be taken to pursue this objective.
- 3. "Western Europe has moved from the margins to the centre of India's foreign and security policies. The crisis in Ukraine has intensified the imperatives for deeper strategic cooperation between India and its European partners." Discuss.
- 4. "Exports are a vital part of the country's GDP and foreign trade must be given sufficient importance and investment. The upcoming Foreign Trade Policy should take proactive steps to ensure that exports are sustainable for Indian companies and in line with WTO norms." Discuss.
- 5. Discuss the measures that can be taken to solve the power crisis that has become an annual affair in India.
- 6. "In the Indian context, where judgmental error is quite frequent, what is required is a judicial abolition of death penalty". Critically discuss.
- 7. Discuss the key challenges faced by the Universities in India and suggest measures that can be taken to help India regain its position of 'a home to the world-class universities' that it once had.
- 8. "The policy approach for India's manufacturing sector needs to create a conducive environment for investments, develop modern and efficient infrastructure, and open up new sectors for foreign capital". Comment.
- 9. "The recent action of the Reserve Bank of India (RBI) to raise the repo rate and cash reserve ratio (CRR) is a recognition of the serious situation with respect to inflation in our country. "Discuss the reasons and suggest some measures to deal with the issue.
- 10. "Heatwave is India's second most lethal disaster after the flood and declaring it as a natural disaster has become the need of the hour." Suggest some long-term measures that can be taken to mitigate the sufferings caused the extreme heat waves.
- 11. "More than a profession or a business, agriculture is India's culture. Adding additional income generating activities to existing agriculture, such as via Agri-tourism, would certainly increase the contribution of agriculture in the national GDP and boost farmer's income." Discuss.
- 12. Discuss how climate change can be one of the opportunities for collaboration among the South Asian nations.
- 13. "Our penal laws must be animated by a concern for equality, justice, and fairness." Discuss the statement in the light of the sedition act in modern India.
- 14. "In the process of reducing its import reliance on crude, India may find itself dependent on other minerals jeopardising its EV ambition. If India wants to shift to EV, it is imperative to secure its mineral resources which would be quintessential for its growth". Discuss.
- 15. "Social media cannot be wished away. Its structure and manner of use are choices we must make as a polity after deliberation instead of accepting as them fait accompli or simply being overtaken by developments along the way". Comment.
- 16. "Carbon farming can be seen as one of the prudent ways to fix our broken food systems". Comment.
- 17. "It is undeniable that cooperation is key to the smooth functioning of federal design of a country. However, if it is coupled with positive competition among the states, then the overall result would be large-scale economic development across the country". Comment.

- 18. "Local solutions for the conservation and restoration of the ecosystem should be promoted for sustainable development." Discuss.
- 19. "The FDI inflows to India in the FY 2021-22 touched a "highest ever" figure of \$83.57 billion." Discuss the measures that India can take to sustain this surge in the FDI inflows.
- 20. Discuss the measures that can be taken to ensure the compliance of Environmental, Social, and Governance (ESG) standards in India.
- 21. "The existing crises that are taking place globally are influencing food security in a direct or indirect manner." Discuss.
- 22. "In society, women are traditionally discriminated against and excluded from political and family-related decisions along with all the concerns inadequate nutrition is also a major one." Elaborate.
- 23. For India, which is neither part of the RCEP nor the CPTPP, the launch of the Indo-Pacific Economic Framework (IPEF) offers significant opportunity to ramp up its trade and economic engagements in the Indo-Pacific region. Comment.
- 24. Discuss the key challenges India is facing in terms of the digitisation of judiciary and suggest measures that can be taken to overcome these challenges.
- 25. "The world today witnesses increasing factors of instability, uncertainty and insecurity. It is of great significance for the BRICS nations to reach consensus on multiple important issues concerning global security and development". Discuss the possible areas where the nations can collaborate.