

CURRENT AFFAIRS

WEEKLY

WEEK - 3
NOVEMBER
2019

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② Making sense of the NBFC Crisis

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② Solutions to the Problem of Pollution in Delhi

ENVIRONMENT

② Should Online Political Advertising be Regulated?

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② India is Home to 77 Million Diabetics, Second Highest in the World

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② Wifi Access Network Interface (WANI)

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② Climate Change is already damaging health of children, says Lancet Report

② Global Population Summit in Nairobi

SOCIAL ISSUES

② Merging Assam Rifles with ITBP

SECURITY

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— Disclaimer —

The current affairs articles are segregated from prelims and mains perspective, such separation is maintained in terms of structure of articles. Mains articles have more focus on analysis and prelims articles have more focus on facts.

However, this doesn't mean that Mains articles don't cover facts and PT articles can't have analysis. You are suggested to read all of them for all stages of examination.

CURRENT AFFAIRS ANALYST

WEEK-3 (NOVEMBER, 2019)

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SECTION: A
(MAINS)

CURRENT AFFAIRS

INDIAN REAL ESTATES – AN ANALYSIS

CONTEXT

- Recently, Union Finance Minister said that the next round of economic reforms are aimed at real estate by the government.

◎ BACKGROUND

- Real estate sector comprises four sub sectors - housing, retail, hospitality, and commercial.
- The growth of this sector is well complemented by the growth of the corporate environment and the demand for office space as well as urban and semi-urban accommodations.
- The construction industry ranks third among the 14 major sectors in terms of direct, indirect and induced effects in all sectors of the economy.
- It is also expected that this sector will incur more non-resident Indian (NRI) investments in both the short term and the long term. Bengaluru is expected to be the most favoured property investment destination for NRIs, followed by Ahmedabad, Pune, Chennai, Goa, Delhi and Dehradun.

◎ ANALYSIS

What is the Market Size of real Estate Industry?

- Real estate sector in India is expected to reach a market size of US\$ 1 trillion by 2030 from US\$ 120 billion in 2017 and contribute 13 per cent of the country's GDP by 2025.
- The Indian real estate sector has witnessed high growth in recent times with the rise in demand for office as well as residential spaces.
- According to Department of Industrial Policy and Promotion (DIPP), the construction development sector in India has received Foreign Direct Investment (FDI) equity inflows to the tune of US\$ 25.04 billion in the period April 2000-March 2019.

Issues and challenges in real estate sector

● Issues faced by customers

- **Delay in Projects:** The major problem consumer is facing is the delay of projects which may happen due to various reasons like court intervention or other hurdles in land acquisition, finance, approval, etc. The consumer had to suffer because customer is paying rent where resides and paying EMI for home loan at same time due to delay of projects.
- There is little or no provision for necessary compensation from government.

- Fraudulent advertisement to sell product is quite popular and frequent in real estate. The main reason for flourishing fraudulent methods is absence of any regulator and standard guidelines which to certain extent have been minimized by RERA Act, 2016.
- Further builders pays only 2 to 3% interest in case of default from their side but when customers default (like refuses to buy) then they have to pay around 16 to 18% which is unfair.

● Issues faced by Real Estate Industry

- **Approvals and Procedural difficulties:** There are almost 50 approvals or more need to be taken for starting a real estate project and further these approvals are required from different govt. departments or authorities. This is one of the major causes of delays and high amount of corruption in real estate sector. Consequently corruption and delay cause inconvenience to customers only.

The Real Estate (Regulation and Development) Act, 2016

- It seeks to protect home-buyers as well as help boost investments in the real estate industry.
- The Act establishes **Real Estate Regulatory Authority (RERA)** in each state for regulation of the real estate sector and also acts as an adjudicating body for speedy dispute redressal.

- **Lack of clear land titles:** The land titles are not clear because of poor record keeping and division of land in many parts till independence. The slow pace of modernization of land records is further aggravating the problem.
- **Speculation in Land and Real Estate Prices:** The prices of land and real estate in India have increased exponentially in last decade and causes overpricing of commercial or residential property. In recent times, the real estate is the most favorable destination for investment in India and far ahead than equity or gold. Further real estate agents or brokers buy or sell property frequently with their own investments and cause of surging prices in property.

- **Sources of Finance:** Finance is the key for development of any industry. Due to poor image of Real Estate sector, banks are becoming reluctant to provide loans and making regulation tougher to avoid the bad loans. Alternate sources of finance are very costly and ultimately impact total cost of the project.
- **High Input Cost:** The real estate is a capital and labour intensive industry; thus rise in cost of labour and construction material due to inflation poses many problems to real estate industry. Further real estate builders many times raise a question about unfair practices in cement industry for rise of price more than 50% in quick time.
 - ▶ Further government intervention of building minimum 20% affordable housing putting extra burden on developers and ultimately on the rest 80%.
 - ▶ Real estate is the most famous sector for soaking the black money without any ambit.
 - ▶ High taxation like stamp duty, VAT etc. and land acquisition are other major challenges faced by real estate sector.
 - ▶ All the above issues can be verified by the facts that more than 30% of houses and commercial spaces are lying vacant in major cities like Mumbai or Delhi despite being so much demand in real estate sector.
 - ▶ Thus to handle the above issues government of India has launched Real Estate (Regulation and Development) Bill. It seeks to regulate contracts between buyers and sellers in the real estate sector to ensure consumer protection, and standardisation of business practices. It establishes regulatory authorities at the state level to register residential real estate projects.

Government Initiatives

The Government of India along with the governments of the respective states has taken several initiatives to encourage the development in the sector. The

Smart City Project, where there is a plan to build 100 smart cities, is a prime opportunity for the real estate companies. Below are some of the other major Government Initiatives:

- Under the **Pradhan Mantri Awas Yojana (PMAY) Urban**, more than 8.09 million houses have been sanctioned up to May 2019.
- In February 2018, creation of **National Urban Housing Fund** was approved with an outlay of Rs 60,000 crore (US\$ 9.27 billion).
- **The Real Estate (Regulation and Development) Act, 2016** seeks to protect home-buyers as well as help boost investments in the real estate industry.
- **GST Act:** Builders receive input tax credits under GST regime.
- **Benami Transaction Act, 1988:** Although benami transactions are now illegal, the act had limited success in curbing them. Amendments to the Act in 2011 and 2016, seeking to more comprehensively enforce the prohibitions.

Road Ahead

- The Securities and Exchange Board of India (SEBI) has given its approval for the **Real Estate Investment Trust (REIT) platform** which will help in allowing all kinds of investors to invest in the Indian real estate market. **It would reduce the dependence of real estate sector on banks.**
- Professionalism in real estate to serve increasingly well-informed consumer base. There is growing need for managing multiple projects across cities, and invest in centralised processes to source material and organise manpower and hiring qualified professionals in areas like project management, architecture and engineering.
- The growing flow of FDI into Indian real estate is encouraging increased transparency. Developers, in order to attract funding, have revamped their accounting and management systems to meet due diligence standards.



Practice Question

- Bring out the problems faced by the Real Estate industry in India. What steps government of India has taken to address them

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Indian Real Estates – An Analysis



The growth of this sector is well complemented by the growth of the corporate environment and the demand for office space as well as urban and semi-urban accommodations

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Delay of projects which may happen due to various reasons like court intervention or other hurdles in land acquisition, finance, approval, etc.

Fraudulent advertisement to sell product is quite popular and frequent in real estate, especially, in absence of proper regulation

Builders pay only 2-3% **interest in case of default** whereas when customers default (like refuses to buy) then they have to pay around 16 to 18% which is unfair

Issues and challenges in real estate sector

Sources of Finance
Due to poor image of Real Estate sector, banks are becoming reluctant to provide loans and making regulation tougher to avoid the bad loans

Lack of clear land titles
The land titles are not clear because of poor record keeping and division of land in many parts till independence

High taxation like stamp duty, VAT etc. and land acquisition are other major challenges faced by real estate sector

Approvals and Procedural difficulties
There are almost 50 approvals or more need to be taken for starting a real estate project and further these approvals are required from different govt. departments or authorities

Real estate is the most famous sector for soaking the black money without any ambit

It seeks to protect home-buyers as well as help boost investments in the real estate industry

To address these issues, GoI has come up with **The Real Estate (Regulation and Development) Act, 2016**

establishes **Real Estate Regulatory Authority (RERA)** in each state for regulation of the real estate sector and also acts as an adjudicating body for speedy dispute redressal

Other initiatives

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Road Ahead

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It will help in allowing all kinds of investors to invest in the Indian real estate market

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Professionalism in real estate to serve increasingly well-informed consumer base

This is needed to address the growing need for managing multiple projects across cities, and invest in centralised processes to source material and organise manpower and hiring qualified professionals in areas like project management, architecture and engineering

The growing flow of FDI into Indian real estate is encouraging increased transparency

Developers, in order to attract funding, have revamped their accounting and management systems to meet due diligence standards

MAKING SENSE OF THE NBFC CRISIS

CONTEXT

- Non-Banking Financial Companies (NBFC) are facing severe liquidity issues which have been attributed to their mismanagement of asset liability mixes. It is important to assess the situation and look at possible solutions, because if not tackled, the non-bank crisis can have a contagious effect on the economy.

◎ BACKGROUND

- Non-Banking Financial Companies (NBFC) and some housing companies are facing liquidity issues. Troubles began when major shadow bank IL&FS Group unexpectedly defaulted.
- IL&FS was a systemically important finance company with a very large balance sheet.
- IL&FS defaulting on its interest and loan repayments set off a panic reaction from lenders across the spectrum, which also led to the crash in the stock markets.
- It prompted a broader shock that made it hard for many companies to refinance their debts.
- NBFCs are thus increasingly finding it hard to access funding.
- History:** A few years ago banks were constrained by new regulations and the weight of bad loans on their books, thus outsourcing part of their lending activity to shadow banks. The share of NBFCs in overall credit rose sharply to over 20% from 10% a mere seven years ago.
 - These non-banks played a key role in ensuring credit to risky sectors such as real estate, even while ensuring that banks did not have to bear the risk.
 - However, these shadow banks were much more under-capitalized and under-regulated compared to the traditional banks.
 - And at the slightest hint of trouble (the IL&FS default), the shadow banking sector came under a cloud, making it difficult for shadow banks to recover the debts.
 - This created a liquidity squeeze in sectors such as real estate that were dependent on the shadow banks.

◎ ANALYSIS

Why did IL&FS default?

- The problem with IL&FS was that it had been borrowing very short-term money through commercial papers (CP) and certificates of deposits (CDs) to invest in infrastructure projects, which have very long and sometimes very uncertain

gestation periods.

- It increased vulnerability to asset-liability mismatches (ALM; this refers to the fact that these lenders have short-dated borrowings and long-dated assets).
- In the wake of demonetization in 2016, the lack of cash eroded liquidity for several months, thereby delaying loan recoveries. The system was just about recovering from the effects of demonetization when IL&FS collapsed.
- When the cash flows from its many road and other infrastructure projects did not complete on time, IL&FS found itself with a severe mismatch in its borrowing and lending tenors.
- This resulted in the inevitable default and the fallout spilling onto other NBFCs and mutual funds (MFs).

Was this crisis predictable?

- Due to relatively lower costs, the sharp rise in share of CP and CD borrowings lower the cost of funds and increase profit margins for NBFCs.
- But if NBFC is unable to rollover or refinance the CPs, solvency issues arise, and growth is adversely impacted.
- An RBI report showed that 99.7% of shadow banking in India makes long-term loans against short-term funding, primarily carried out by NBFCs and housing finance companies.
- In 2012, the Usha Thorat committee had highlighted the risks that NBFCs carry by being dependent on money market instruments like CD and CP, having little flexibility covering for their long-term assets under situations of stress.
- The report had suggested uniformity in prudential regulations between the two financial entities—banks and non-banks.

Is the relation between the IL&FS and other NBFCs justified?

- IL&FS is a very different institution from a typical NBFC.
- It is one of a kind and was financing very long gestation infrastructure projects, which no other NBFC was capable of financing.

- There definitely were oversight failures at IL&FS but the default was not a systemic issue.
- It is neither correct nor prudent to compare all NBFCs with IL&FS.
- The asset-liability mismatch is largely an issue for long-term lenders like Housing Finance Companies (HFCs) and infrastructure NBFCs.
- Nonetheless, **the IL&FS default created a 'risk aversion' for the system as a whole.**
- The NBFCs are struggling less because of lack of liquidity in the system but more because the money market has lost faith in most NBFCs' balance sheets and in the credit rating agencies' ratings.

Why is then NBFC as a sector affected?

- Most large NBFCs are well capitalised, but have got exposed due to excessive short-term borrowing (CDs and CPs).
- The IL&FS default signalled the end of easy money** — that is, using cheaper, short term market instruments to fund longer-term assets.
- The logjam acquired crisis proportions when many NBFCs were forced to sell profitable assets to generate cash to repay maturing debts.
- The defaults came around the same time as liquidity in **banking sector as a whole also got stressed**. Banks, which were already reeling under the weight of past debts, became exceedingly **risk-averse to lend to NBFCs**.
- Shying to set a precedent, RBI did not give NBFCs necessary leeway of a liquidity window but instead resorted to slashing rates.
- Since **NBFCs also do not have access to RBI's liquidity operations**, which are restricted to commercial banks, a temporary systemic mismatch, which should have been nipped in the bud, snowballed into a crisis.

What is the significance of NBFCs in India?

- NBFCs provide credit to that part of the Indian economy **where the private sector banks prefer not to lend** (either because the risks are too high or because the returns are too low).
- Many NBFCs specialise in lending in a particular sector, and **develop skill sets** unique to that customer base; for example, SMEs and real estate.
- Many **unbanked borrowers avail credit** from NBFCs and later use their track record to **become bankable borrowers**.
- Non-bank firms fund everyone from poor entrepreneurs to business titans looking to roll over debt. By covering a wide spectrum of customised services and innovative products, NBFCs have played **an active role in strengthening the economy**.

- NBFCs have in fact contributed in addressing economic demand, and that has helped in **financial inclusion**.
- They play an important role in **sustaining consumption demand** as well as **capital formation in small and medium industrial segment**.
- They played a vital role in **diversifying the financial sector**, giving impetus to financial stability and made the sector more efficient.

What are the broader connotations of this crisis on the economy?

- The **shortage of funding** for lenders is having a **direct impact on economic growth** which has recently slowed to a decadal low.
- The liquidity issue in NBFC has caused the **fall in credit** to the auto, real estate, agriculture and small and medium enterprises sectors.
- With economic growth slowing, compounded by rising fuel prices and a falling currency, the country cannot afford the NBFC crisis.
- The current NBFC crisis needs to be resolved on a priority basis to revive the corporate earnings growth and the government needs to play a major role **to spur demand in the economy**.

What are the solutions to correct this crisis?

Measures by RBI:

- RBI increased monitoring of NBFCs after the IL&FS crisis. It **eased lending norms and exposure limits** to alleviate stress in the sector, and has **intensified monitoring** based on the size and payment behaviour of NBFCs.
- RBI proposed a **liquidity coverage ratio** for large NBFCs, which is currently applicable only to banks.

Measures by the government:

- Government has introduced a **₹ 25,000 Crore special window** to revive stuck projects, subject to certain conditions.
- In Budget 2019-20, the government provided a **one-time partial credit guarantee to PSBs to buy high-rated** (basically less risky) **pooled assets of financially sound NBFCs**.
- Though NBFCs are still waiting for these funds, as risk-averse banks have not followed up.
- There is also **lack of clarity** whether such dealings between banks and NBFCs should be considered as **'securitisation'** deals or as **'pass-through certificates'** (PTC).

• **Other solutions to consider:**

- ▶ **Quality function of RBI:** RBI should initiate conversations with senior bankers and provide assurances, so that banks can start feeling more confident of funding NBFCs.
- ▶ **Merger of Banks and NBFCs:** Government must consider a merger of NBFCs into banks, with appropriate guidelines to exempt existing NBFC balance sheets from maintenance of CRR, SLR and PLR requirements of a bank.
- ▶ **Raising entry capital norms:** Since regulating over 10,000 NBFCs is a very difficult task, increase in threshold entry level of NBFCs and HFCs can be considered by raising the minimum capital requirements.
- ▶ **Securitisation of mortgage loans:** Securitisation provides much-needed liquidity to the balance sheet. According to IMF, securitisation helps free up capital and that allows banks to extend new credit to the economy. It can be an alternate source of long-term funding
- ▶ **Covered Bonds:** Covered bonds are debt securities issued by a financial institution and backed by high rated pool of assets; in the event the financial institution becomes insolvent, the bond is covered. It is a more efficient and low-cost source of fund than unsecured debt instruments.
- ▶ **Develop corporate bond market:** Take appropriate measures towards this.

- ▶ **Insolvency and Bankruptcy Code (IBC):** For faster resolution, NBFCs can be brought under IBC purview.
- ▶ **Voluntary asset quality review (AQR):** A voluntary AQR for 50 largest NBFCs will help clean NBFC balance sheets and send positive signals to the MFs and large corporate treasuries to buy CPs and CDs issued by the NBFCs who pass the voluntary AQR.
- ▶ **Bring HFCs under RBI:** In order to improve regulatory oversight, government can consider bringing HFCs under the RBI from the fold of National Housing Bank (NHB).
- ▶ **Create Alternative investment fund (AIF):** Institutional funds can be channelized to NBFCs through AIF.
- ▶ **Private equity firm investment in NBFC:** Lenders can feel safer when they see large stakes by private equity funds in an NBFC.
- ▶ **Unified regulatory agency:** The Financial Sector Legislative Reforms Commission, 2011, had proposed a unified regulatory agency for NBFCs, equity and bond markets, insurance, pensions, mutual funds, etc. This proposal can be revisited.

Conclusion

- Because NBFCs have stepped in where banks feared to tread, their role has become far more significant now. Hence reviving confidence in the NBFC sector will benefit all stakeholders, and economy at large.

SOLUTIONS TO THE PROBLEM OF POLLUTION IN DELHI

CONTEXT

- Supreme Court came down heavily on the Chief Secretaries of four states—Punjab, Haryana, UP, and Delhi—saying that they have failed to give Delhi residents clean air to breathe. But the problem of pollution in Delhi has deeper roots, and must be assessed in order to achieve workable solutions.

◎ BACKGROUND:

- **Air Quality Index (AQI)** touched emergency levels in Delhi when it crossed the 'severe' level benchmark of AQI 500.
- Air quality in Delhi remains poor throughout the year for various reasons:
 - ▶ Rapid loss of green cover
 - ▶ Construction of homes and infrastructure projects
 - ▶ Vehicular pollution
 - ▶ Industrial pollution.
- But for a few weeks every November, the situation gets worse due to crop residue burning (CRB) by farmers in Punjab and Haryana, which causes a heavy smog to settle over Delhi.
- The smog worsens when the heavy smoke from crop burning combines with vehicle and industrial emissions at a time of year when wind speed drops significantly.
- Fireworks set off to celebrate the Hindu festival of Diwali exacerbate the problem.
- Issue of CRB: Farmers in Punjab and Haryana mainly plant rice for the kharif season, and wheat for the rabi season. Farmers have to harvest rice before they plant wheat for the next season. Harvesting rice using current method (harvest combines) leave rice straw covered all over the fields. The rice straws clog the seeder machines that plant the next crop i.e. wheat. And because farmers do not value the rice straw as animal-feed (due to lack of essential nutrient) or for non-feed use, they dispose of the residue by burning it. Because of its bulky nature, it is also not economical to dispose crop residue away from its generating site.
- Burning residue in open has very serious impact on diversity of soil flora and fauna, environment and human health; it even has power to change the monsoon pattern of the country.
- Although the National Green Tribunal (NGT) has banned CRB, the decree rarely gets reinforced.

◎ ANALYSIS:

What has the government done to solve the issue, and why has it not worked?

- **Command-and-control:** In Punjab, there is a high monetary penalty for farmers who burn crop stubble, but it is rarely enforced, partly due to limited state capacity. Though the government claims to be vigilant, less than 10% of CRB cases are penalized. The usual command-and-control solution of banning stubble burning has not worked mainly because farmers don't know of any cost-effective alternative, and they are politically too powerful to be forced to do something that would reduce their incomes from farming.
- **Alternative Machines:** Machines like Chopper, Happy-Seeders, Super Straw Management System (Super-SMS) and Rotavator have been presented to the farmers as alternatives to the currently used 'Harvest Combines'. In fact, in 2018 the Punjab government compulsorily mandated the attachment of super-SMS to harvest combines. But opting for these machines is not necessarily cost-efficient, despite subsidization. Rising cost of diesel, which is widely used in tractors and farm equipment, has also increased costs. Apart from the issue of cost, the effectiveness of alternate machines made available to farmers is also questionable. For example;
 - ▶ **Happy Seeder** can plant wheat seeds without getting clogged by the rice straw. It deposits the straw over the sown area as mulch. But since this machine just sows wheat without cutting paddy straw, it invites rats and termite to the field.
 - ▶ **Rotavator** has rotating blades that chop the straw into small pieces and then it spreads it inside the soil. But there is only a small window before which wheat seeds are sown, and this is not enough time for the straw to decompose.
 - ▶ **Super-SMS** is attached to self-propelled harvest combines, which cut paddy straw into small pieces and spread same. But loss in paddy has been noted due to its use as also spreads paddy along with the straw.

- **Odd and Even scheme:** To counter the issue of poor air quality, Delhi government launched the odd-even scheme, mandating only odd-numbered vehicles on road on odd days, and only even-numbered vehicles on even days. With high penalties on violations, the implementation of the scheme is a success. But given that this scheme is applied only when the pollution levels have already crossed the benchmark, it is only a measure of respite and only caters to vehicular pollution.
- **Ban on sale of fire-crackers:** The Supreme Court banned the sale of fireworks in the capital until after Diwali, but many residents bought them from neighbouring states or from unregulated markets of Delhi.
- **Incentives:** The judges of the SC asked the Punjab government to pay Rs. 100/quintal to farmers as an incentive not to burn stubble. But this amount is too low to incentivize farmers to stop stubble burning.
- **Other measures:** Other measures by the authorities to combat air pollution include:
 - ▶ Road sweeping machines and water sprinklers to reduce dust in Delhi
 - ▶ Large-scale planting of saplings to eventually act as a shield against pollution
 - ▶ Mandating covering of construction sites
 - ▶ Ensuring no burning of dry leaves, garbage and other solid wastes
- Most of these measures are either too costly or have a long gestation period. There is also the issue of ensuring strict enforcement. Most measures seem to be scratching the surface of the paddy problem, when in fact the problem is much deeper than stubble-burning.

What is the deeper problem?

- **Shift of cropping pattern away from corn:** The Punjab-Haryana belt was never India's rice belt before the Green Revolution. Punjab was known for 'makki ki roti and sarson ka saag', but now, it is rare to see makki (corn) in Punjab. Much of the kharif area is under rice.
- **Higher profits on paddy:** Farmers go for paddy as it gives them higher profits compared to crops like corn. The key reasons are as follows:
 - ▶ Massive subsidies on power by the state
 - ▶ Fertilizer subsidy by the Centre
 - ▶ Assured procurement of paddy by the state agencies on behalf of the Food Corporation of India (FCI).
- **Political clout of farmers:** Given our political economy of securing votes through free power and cheap fertilizers, it is unlikely that the Centre and states will abolish fertilizer and power subsidies offered to farmers, who form a major vote bank in states of Punjab and Haryana.
- **Depleting ground water table:** Paddy cultivation in this belt is against its natural endowment of water. Since paddy is a high water-consuming crop, and there is little natural rainfall for it, one kg of rice requires about 5,000 litres of irrigation water. This shift in cropping pattern has wreaked havoc on the groundwater table, which is depleting at about 33 cm each year. More than three-fourths of the blocks in Punjab are over-exploited.
- **Compressed harvesting season:** In order to save water during the peak summer season, the Punjab government passed a legislation stating that no one will sow paddy before June 15. This pushes the harvesting period to late-October to mid-November, leaving very little time for the sowing of rabi crops. So in a compressed season, farmers rely on low cost machines like 'harvest combines' to harvest paddy, and burn the stubble to quickly move to sowing wheat.
- **Expensive farm labour:** The stubble burning issue has become more acute in recent years because mechanised harvesters leave more residue than when crops are plucked by hand. But such harvesters are more popular because of farmer lobbies and also because farm labour has become expensive, especially during the peak season.

Proposed changes in Agricultural Policy

Solution to the problem of pollution caused by CRB rests with the political class at the Centre and states, because it is the elected representatives that make policies for grain management.

- **Shift to corn cultivation:** To curb NCR air pollution from stubble burning, the government should incentivise Punjab and Haryana farmers to switch from paddy to corn. About two million hectares of rice area from this belt can be moved to eastern parts of the country, where water availability is abundant.
- **Focus on Basmati rice:** The value of basmati is almost three times higher than that of common rice, and much of that is exported. So, Punjab and Haryana should focus primarily on basmati, which gives three times higher value for every drop of water consumed, and try to get away from common paddy, which is basically for feeding the Public Distribution System, where rice is sold to consumers at Rs. 3/kg under the National Food Security Act.
- **Subsidy in cash:** Subsidies on power and fertilizers are unlikely to go in near future, so a move towards giving these subsidies in cash on a per hectare basis can be some improvement over the existing situation. A cash incentive for growing corn in place of paddy, it may encourage farmers

to switch from common paddy to corn. According to one study, the combined subsidy on power for irrigation and fertiliser consumption in paddy is about Rs. 15,000/ha. So, giving Rs. 12,000/ha for corn cultivation is actually transferring the subsidy from rice to corn cultivation. It will not cost the state or central exchequer anything extra but will just reshuffle the cropping patterns.

- Change in procurement policy: Government's rice stocks are way above the buffer stock norms. This reflects inefficiency in grain management. Centre should announce that it will not procure more than, say, 50% of the production of common paddy from the blocks that are over-exploited.
- Creating corn-allied markets: Rather than being absorbed by government procurement, corn cultivation will have to be absorbed by feed mills for poultry, starch mills, ethanol, etc. So, tax incentives should be given for corn-based industries in this belt to create a demand that is market-aligned.

An alternate solution: Coasean Solution

- Reciprocity: Nobel laureate Ronald Coase argued that harm (externalities in economics) is not unilateral but reciprocal in nature. In our case, both Delhi citizens (by demanding cleaner air) and farmers (by burning crop residue) impose reciprocal harm or externalities.
- Solution to externalities: Coase offers two solutions to the problem of externalities: (i) command and control; (ii) trade in externality. Since the first solution has failed in this case, we can consider the second Coasean solution.
- Costly to eliminate CRB: According to one study, if the 2 million odd farmers in the concerned states were to eliminate CRB at ₹1 lakh per farmer (which is roughly the cost of adopting alternatives), it would cost about ₹20,000 crore collectively.

- Higher cost of CRB for Delhi citizens: Delhi citizens face enormous health and productivity costs (2 trillion annually) because of stubble burning. Health cost to Delhi citizens is 10 times higher than the cost to farmers of eliminating CRB.
- Making eliminating CRB tradable: Making CRB tradable can establish gains from trade. Anything given to farmers over ₹1 lakh individually and over ₹20,000 crore collectively can incentivize them to stop CRB and adopt alternatives. This is much less than the cost Delhi citizens have to pay to avoid the harmful effects of CRB.
- Following systems must be in place to internalize externalities and let private bargains to be struck:
 - ▶ Governments of Punjab, Haryana and Delhi can create a tradable CRB permit.
 - ▶ An 'Exchange' for CRB permit can be established; where citizens, non-profits and state governments can participate. This will create a market, reduce transaction costs and make the trade convenient.
 - ▶ Relevant property rights should be established.
 - ▶ Governments of Delhi, Punjab and Haryana should set aside a fund only for this purpose.
 - ▶ Exchange must transparently announce the prices of permits as well as the environmental quality.

CONCLUSION

- We see that the problem of Pollution in Delhi is much deeper than it seems. It is for policy makers to delve deeper into the issue and adopt a multipronged approach to solve this environmental and agricultural menace.



Practice Question

- How is the issue of Pollution in Delhi linked to Agriculture in India? Suggest ways to combat this issue.

Solutions to the problem of pollution in Delhi



Context

SC came down heavily on the Chief Secretaries of four states—Punjab, Haryana, UP, and Delhi—saying that they have failed to give Delhi residents clean air to breathe. But the problem of pollution in Delhi has deeper roots, and must be assessed in order to achieve workable solutions

Construction of homes and infrastructure projects

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Learning Aid

Rapid loss of green cover

Air quality in Delhi remains poor throughout the year for various reasons

Vehicular & Industrial pollution

For a few weeks every November, the situation gets worse due to **crop residue burning (CRB)** by farmers in Punjab and Haryana, which causes a heavy smog to settle over Delhi

The **smog worsens** when the heavy smoke from crop burning combines with vehicle and industrial emissions at a time of year **when wind speed drops** significantly

Fireworks set off to celebrate Diwali further exacerbate the problem

Problem of Pollution in Delhi is much deeper than it seems and calls for a multipronged approach to solve this environmental and agricultural menace

Issues of CRB

The usual command-and-control solution of banning stubble burning has not worked mainly because farmers don't know of any cost-effective alternative, and they are **politically too powerful** to be forced to do something that would reduce their incomes from farming.

Alternative machines like Chopper, Happy-Seeders, Super Straw Management System (Super-SMS) and Rotavator have been presented to the farmers as alternatives to the currently used 'Harvest Combines'

But opting for these machines is **not necessarily cost-efficient**, despite subsidization. Apart from the issue of cost, the **effectiveness of alternate machines** made available to farmers is also **questionable**

The govt should incentivise Punjab and Haryana farmers to switch from paddy to corn

About two million hectares of rice area from this belt **can be moved to eastern parts of the country**, where water availability is abundant

Focus on Basmati rice

The value of basmati is almost three times higher than that of common rice, and much of that is exported. So, Punjab and Haryana should focus primarily on basmati, which gives **three times higher value** for every drop of water consumed, and try to **get away from common paddy**, which is basically for feeding the Public Distribution System, where rice is sold to consumers at Rs. 3/kg under the National Food Security Act

Odd and Even scheme

To counter the issue of poor air quality, Delhi government launched the odd-even scheme with high penalties on violations, the implementation of the scheme is a success. But given that this scheme is applied only when the pollution levels have already crossed the benchmark, it is **only a measure of respite** and only caters to vehicular pollution

Other Measures

Road sweeping machines and water sprinklers to reduce dust in Delhi

Mandating covering of construction sites

Large-scale planting of saplings to eventually act as a shield against pollution

Ensuring no burning of dry leaves, garbage and other solid wastes

SHOULD ONLINE POLITICAL ADVERTISING BE REGULATED?

CONTEXT

- Recently, Twitter's chief executive, Jack Dorsey, decided to stop all political advertising on Twitter globally.

◎ BACKGROUND

- Political advertising is advertisements used for the purpose of appealing, directly or indirectly, for votes or for financial or other support in any election campaign. It includes usage of media from conventional to social media for this purpose.
- ECI in 2013 ruled that the model code of conduct and its pre-certified political advertisement rules will apply to the social media as well. Earlier, pre-certification was restricted to print and electronic media.
- Fake news, deep fakes and political advertising are the biggest challenges threatening the fundamentals of democracy.
- In a measure to protect the democracy, Jack Dorsey, Twitter's CEO has announced to stop all political advertising on Twitter globally.
- However, Facebook's founder, Mark Zuckerberg says that his company as part of a "fifth estate" is a new kind of force in the world which gives the public a megaphone to "express themselves at scale (online)".
- Google in its advertising policy of India has made it mandatory to submit a pre-censorship certificate from the ECI in order to run political advertisements on its platform. In doing so, Google has become the first Silicon Valley Company to comply with the ECI's instructions.

◎ ANALYSIS

Why political Advertising need stricter regulation?

- **Democracy requires free and fair elections**
 - Voters should be given all the details they need to make an informed decision
 - Misinformation is proliferated and highly emotive subjects handled in ways that could easily be construed as manipulative. This harms the spirit of fair elections.
 - The distribution of this manipulative content through TV and social media is proving destructive for the democracy.

- **Self-Regulatory System has not worked**

- Political parties are morally responsible to follow a code of conduct during elections.
- In the absence of independent controls, the only thing we are left to cling to in the hope that political campaigning follows some set of rules are the morals of politicians which is absurd.
- Politicians simply shrug off the issue and continue without any regulation
- Self-regulation model of media has failed and brought fissures to the surface and it needs to be regulated.

- **Freedom of speech does not grant the right to deceive**

- Freedom of speech provides that political advertising should not be strictly regulated. But freedom of speech is meant to ensure protection of diversity of opinion and the individual's right to express in a reasonable manner.
- Lies, deception and treachery are not covered under freedom of speech to influence voting behavior. Manipulated content is incongruous with freedom of speech.

- **The blurred line between editorial content and advertising**

- Advertisements must be distinguishable from editorial content. However, by mimicking the style of a news program or documentary, party political broadcasts intentionally lose that distinction.
- Advertisements are often misleading
- Advertisements often cause offences

Electoral Laws and Digital Media

- EC is empowered under Article 324 of the Indian Constitution to conduct free and fair elections in the country. Under this Article ECI draws power to regulate political advertising.
- Section 43A, The Information Technology Act, 2000 provides compensation for failure to protect data by body corporate. However, it has limited applicability to political parties or to data brokers that market personal data at a massive scale. For instance, WhatsApp groups based on voter lists coupled with phone numbers and caste, gender and other sensitive information to target voters with propaganda without their consent.

- It is the need of the hour that the Electoral Laws in India must be drafted specifically into a new act giving powers to the authorities to deal with ever-growing area of digital media and its issues to ensure that the Elections are held in a truly fair and competitive manner and the true purpose of Democracy is served in a fair manner.

• What is it that makes online political advertisements problematic?

Two things that make online political advertising problematic:

- Targeting: Online advertising allows, especially on social networks, personalised targeting based on multiple attributes that wasn't possible at the same level before. These platforms make it possible to go from manufacturing consent to manipulating consent. A person is continuously fed with information to vote for a particular party.
- Invisibility of online political advertising. In advertising on a social media platform, not everyone gets to know the sponsor of the advertisements. These advertisements are frequently treated as content.

• What are the risks of regulating online political advertising?

- Online advertising is not subject to direct regulation and absence of transparency of sourcing and targeting of advertising.
- No limit to volume of advertising or spend in respect of referendums – statutory spending limits are not in place in parliamentary or Assembly elections.
- The speed at which disinformation can be spread and accessed online means that online platforms present a particular risk in relation to disinformation and deliberate bias.
- Online manipulation (including bots)
- Particularly in respect of micro-targeting:
 - Opacity in privacy and consent controls
 - Influencing Outcomes unlawfully or in a concealed manner

Mitigating Factors identified

- Digital media literacy awareness/education initiatives
- Industry initiatives, e.g. Facebook pilot advertising transparency tool (Ad Library), changes in the Twitter API in January 2018.
- Fact checking initiatives, i.e. Facebook and the Journal.ie partnership to identify fake news

- Data Protection law requires data processors to have consent from data subjects for processing their data. It also compels any entity holding personal data to take a range of specific measures to protect that data, including data security measures likely to have the effect of reducing the risk to the electoral process by increasing the resilience of the IT systems used by entities holding relevant information.

Political Advertising – a Timeline

- Election Commission of India (ECI) in 1999 prohibited all political advertisements on electronic media prior to elections.
- That decision was challenged before the Andhra Pradesh high court on the grounds that the ECI lacked the powers to ban political advertisements and that the ban violated the fundamental right to free speech under Article 19(1)(a) of the Constitution.
- Chief Justice M.S. Liberhan in his judgment struck down the ban as unconstitutional.
- When the matter was appealed before the Supreme Court, the Ministry of Information and Broadcasting citing a particular rule in the Cable Television Network Rules, 1994 that prohibited political advertisements from being broadcast on cable television.
- Supreme Court struck down the rule and passed an order concocting a draconian pre-censorship regime for all political advertising through electronic media.
- As per this order, all political advertising would have to be submitted to the Election Commission (or any bureaucrat designated by the EC) for approval before it could be broadcast on electronic media. According to the court, any appeals against the decision of the bureaucracy would lie before only it.
- The first time that judges of a democratic country vested the powers to censor political speech with unelected bureaucrats.
- There was no attempt by the Supreme Court to engage with the constitutionality of the prohibition contained in the impugned rule. The court also declined to engage with the prickly constitutional issues in relation to pre-censorship on speech despite having divergent views on the issue in its earlier precedents.
- ECI in 2013 ruled that the model code of conduct and its pre-certified political advertisement rules will apply to the social media as well.
- Google in its advertising policy of India has made it mandatory to submit a pre-censorship certificate from the ECI in order to run political advertisements on its platform. In doing so, Google has become the first Silicon Valley Company to comply with the ECI's instructions.

- Bombay high court directed ECI to pass orders on regulating political advertising on social media against a PIL seeking regulation of political advertisements on social media.

Role of ECI in Regulation Online Political Advertising

- There is no clarity whether the pre-censorship regime is limited to paid advertisements and not content posted by political parties on their social media accounts. ECI has a role to define the contours of pre-censorship regime.
- The ECI must ensure parity of treatment between political advertising on social media and traditional media.
- The tools like WhatsApp have no longer remained personal messaging services but emerged as mass communication services. A party worker can

communicate a political message to five groups, which each group containing 256 persons, in a matter of seconds. Indian political parties are using WhatsApp for mass messaging, often with hate filled messages. How should the law classify these messages sent to 1,280 persons without any cost?

◎ CONCLUSION

- To summarize the efforts taken by the EC to tackle digital media, it would not be wrong to say that the self-regulations are not enough for the social media platforms to keep an eye over the content, the EC is having a hard time to enforce its powers not having specific laws to deal with the upcoming issues like propaganda spreading, fake news, paid news, et cetera for which the use of digital media and social media is being made.



Practice Question

- Unregulated online Political Advertising has put the democracy in danger. In the light of this statement analyze the need for regulation of online Political Advertisement in India.

Regulation of Online Political Advertising**Context**

Recently, Twitter's chief executive, Jack Dorsey, decided to stop all political advertising on Twitter globally



Lies, deception and treachery are not covered under freedom of speech to influence voting behavior. Manipulated content is incongruous with freedom of speech

GS SCORE
Learning Aid

Freedom of speech does not grant the right to deceive

Need for stricter regulation of political advertising

Democracy requires free and fair elections

The distribution of this manipulative content through TV and social media is proving destructive for the democracy

Self-Regulatory System has not worked

Self-regulation model of media has failed and brought fissures to the surface and it needs to be regulated

Invisibility : In advertising on a social media platform, not everyone gets to know the sponsor of the advertisements. These advertisements are frequently treated as content.

Two things that make online political advertising most problematic

Targeting: Online advertising allows, especially on social networks, personalised targeting based on multiple attributes that wasn't possible at the same level before

Industry initiatives like Facebook pilot advertising transparency tool (Ad Library), changes in the Twitter API in January 2018

Digital media literacy awareness/ education initiatives

Fact checking initiatives like Facebook and the Journal.ie partnership to identify fake news

Mitigating Factors identified

Data Protection law requires data processors to have consent from data subjects for processing their data

It also compels any entity holding personal data to take a range of specific measures to protect that data, including data security measures likely to have the effect of reducing the risk to the electoral process by increasing the resilience of the IT systems used by entities holding relevant information

Role of ECI in Regulation Online Political Advertising

In recent times, fake news, deep fakes and political advertising have emerged as one of the biggest challenges threatening the fundamentals of democracy

Accordingly, ECI in 2013 ruled that the model code of conduct and its pre-certified political advertisement rules will apply to the social media as well

However, there is no clarity whether the pre-censorship regime is limited to paid advertisements and not content posted by political parties on their social media accounts

Google has become the first Silicon Valley Company to comply with the ECI's instruction as in its advertising policy of India it has made it mandatory to submit a pre-censorship certificate from the ECI in order to run political advertisements on its platform

ECI has a role to define the contours of pre-censorship regime

It must ensure parity of treatment between political advertising on social media and traditional media.

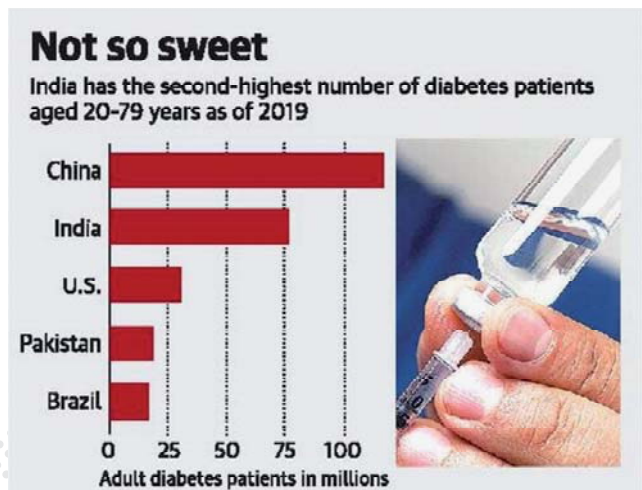
INDIA IS HOME TO 77 MILLION DIABETICS, SECOND HIGHEST IN THE WORLD

CONTEXT

- One in six people with diabetes in the world is from India. The numbers place the country among the top 10 countries for people with diabetes, coming in at number two with an estimated 77 million diabetics. China leads the list with over 116 million diabetics.

◎ BACKGROUND/HIGHLIGHTS OF THE REPORT

- On International Diabetes Day, the International Diabetes Foundation Diabetes Atlas makes it clear India needs to pause and re-evaluate its strategy to combat diabetes.
- The ninth edition of the IDF Diabetes Atlas offers projections that continue to put India at the second slot right up to 2045.
- Every sixth diabetic in the world is an Indian, making the country the world's diabetes capital.
- And the numbers are staggering; just over 134 million Indians will be diabetics in the next 25 years.
- India is on the top of the table of a clutch of countries in from Southeast Asia — Bangladesh, Sri Lanka, Nepal and Mauritius.
- Bangladesh, which is second on the list of top five countries with diabetes (20-79 years), however, has only 8.4 million diabetics.
- China, India and the United States had the largest number of adults with diabetes.
- More than half the world's total diabetics are aged between 20 and 60.
- It is projected that the number of adults with diabetes in Pakistan will exceed that in the United States of America, and it will move to third place by 2045.
- Diabetes-related health expenditure in the South East Asia, at \$8.1 billion in 2019, was the lowest total of all IDF regions.
- In the SEA Region, 8.4 percent of total health expenditure was allocated to diabetes. The highest percentage was in Mauritius (16.9 per cent), and the lowest was in Nepal (4.2 per cent).
- Type 2 diabetes accounted for around 90 percent of all people with diabetes.
- The rise in the number of people with type 2 diabetes was driven by a complex interplay of factors, including urbanisation, an ageing population, decreasing levels of physical activity and increasing levels of overweight people and obesity.



About Diabetes

- Diabetes is a disease that occurs when your blood glucose, also called blood sugar, is too high.
- Blood glucose is your main source of energy and comes from the food you eat.
- Insulin, a hormone made by the pancreas, helps glucose from food get into your cells to be used for energy.
- Sometimes your body doesn't make enough or any insulin or doesn't use insulin well. Glucose then stays in your blood and doesn't reach your cells.
- Although diabetes has no cure.
- Sometimes people call diabetes "a touch of sugar" or "borderline diabetes." These terms suggest that someone doesn't really have diabetes or has a less serious case, but every case of diabetes is serious.

What are the different types of diabetes?

- Type 1 diabetes: If you have type 1 diabetes, your body does not make insulin. Your immune system attacks and destroys the cells in your pancreas that make insulin. Type 1 diabetes is usually diagnosed in children and young adults, although it can appear at any age. People with type 1 diabetes need to take insulin every day to stay alive.

- Type 2 diabetes: If you have type 2 diabetes, your body does not make or use insulin well. You can develop type 2 diabetes at any age, even during childhood. However, this type of diabetes occurs most often in middle-aged and older people. Type 2 is the most common type of diabetes.
- Gestational diabetes: Gestational diabetes develops in some women when they are pregnant. Most of the time, this type of diabetes goes away after the baby is born. However, if you've had gestational diabetes, you have a greater chance of developing type 2 diabetes later in life. Sometimes diabetes diagnosed during pregnancy is actually type 2 diabetes.

What health problems can people with diabetes develop?

- Heart disease
- Stroke

- Kidney disease
- Eye problems
- Dental disease
- Nerve damage
- Foot problems

What are the symptoms of diabetes?

- Increased thirst and urination
- Increased hunger
- Fatigue
- Blurred vision
- Numbness or tingling in the feet or hands
- Sores that do not heal
- Unexplained weight loss

SECTION: B
(PRELIMS)

CURRENT AFFAIRS

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FALLING INDEX OF INDUSTRIAL PRODUCTION

◎ CONTEXT

- Recently the Index of Industrial Production (IIP) reached to a low of **-4.3%** (September 2019). It was exacerbated by a manufacturing slowdown of **-1.4%**. This is the deepest negative growth in the 2011-12 series; more than seen in the previous 2004-05 IIP series.

◎ ABOUT

- There is sharp contraction in the IIP (factory output), to an eight-year low of a negative 4.3% year-on-year (y-o-y).
- In terms of industries, 17 out of the 23 groups in the manufacturing sector contracted.
- Core sector data measuring the eight infrastructure sectors contracted 5.2%, worst in 14 years. Core sector constitutes 40% of industrial production.
- All components of industrial output—mining, manufacturing and electricity—fell during the month, pointing towards a deepening economic downturn.
- The top negative contributors to negative IIP were mining, bars and rods of alloys and stainless steel, auto parts, commercial vehicles and two-wheelers.
- Demand is clearly weaker than perceived and consumer confidence is severely dented. Business confidence has slipped to lowest level in past two years.
- Signalling a continuing slump in consumption demand, both consumer durables and consumer non-durables also contracted.
- There is contraction also in capital goods segment (driven largely by commercial vehicles (CVs)) indicating that investment demand in the economy is shrinking, and that companies are not adding capacity.
- The pace of growth of intermediate goods such as cotton yarn, plywood and steel pipes halved to 7%.
- The IHS Markit's purchasing managers' index (PMI), based on a survey of 400 producers, also fell. Job creation fell to a six-month low, while companies were reluctant to hold excess stock and lowered input buying.
- Auto manufacturers have been producing less in order to reduce inventories that piled up earlier.
- The infrastructure and construction sectors have been sluggish for a long time now.
- Key sectors such as defence have attracted little FDI.
- Highest positive contributors to IIP were basic metals (driven largely by mild steel slabs), fragrance and oil essentials, hot-rolled coils, electric heaters and medicinal formulations.
- MS Slabs are used in the hydraulic press and machinery industry. This explains the growth in the intermediate goods user industry segment, which some analysts say will contribute to imminent recovery of IIP.

Reasons for fall in IIP

- Tight credit conditions are making it hard for all, except for top-rated borrowers, to access loans at affordable rates. This is hurting demand and business.
- After the NBFC crisis, companies and individuals have been finding it harder to get affordable loans; disbursements by NBFCs and HFCs fell 32% y-o-y in Q2FY20. Overall loan growth seems to have slumped to 6%.
- One can't blame lenders for being risk-averse, since it is a fact that credit profiles of most companies are far from robust and, in many cases, are deteriorating.
- The sharp IIP de-growth was, in large part, due to a persistent negative growth in capital goods.

- IMF and other agencies have downgraded India's growth forecast, which is emanating mostly from slowdown in manufacturing segment. Sectors in manufacturing segment where growth contracted were mining, electricity generation, petroleum and consumer durables.
 - Growth in mining contracted due to the excess, prolonged rains in the mining belts.
 - Negative growth in petroleum refining might have been due to some maintenance related refinery closures.
 - Weaknesses in consumer non-durables (FMCG) are representative of squeezed purchasing power, and hence, demand weakness.
 - Contraction in electricity generation has been led by multiple factors, including weaker demand from industry, curtailed production schedules, low domestic demand and farm off-take related to higher than normal rainfall.
- Global economy is also suffering from low growth conditions, and its affect gets amplified for emerging markets like India.
- Diesel consumption has sharply decelerated and a continuing vehicle sales slowdown will inevitably impact transport activity in an adverse way.
- The late withdrawal of the monsoon is likely to have dampened construction activity in various states, contributing to the contraction in the output of infrastructure/construction goods.
- Seven out of the eight core industries showed a contraction. Coal was the worst performer on account of an extended monsoon, a surge in renewable energy supply and labour issues at state-run Coal India Ltd. Coal accounts for a substantial share of the freight moved by the Indian Railways and the country's power generation capacity. Of India's installed capacity of 360 GW, 54% is coal-fuelled.
- Slowdown in growth of intermediate goods stands out as the biggest contributor to the sequential slippage in IIP growth.
- Weakening demand had a domino effect on the manufacturing industry, knocking down production, employment and business sentiment.

Solutions to revive IIP

- Without an investment revival, there is little hope of the economy clocking more than 6%.
- Even as the government works on longer-term measures to revive the economy, it must find a way for businesses and individuals to be able to access loans and, at the same time, speed up payments so cash flows back into the economy.
- The onus is on the government to spend more; schemes such as the Rs. 25,000 crore funds for the real estate sector to complete stalled housing projects will boost cement and steel sectors and will go some way in reviving demand.
- However, over the longer term, government must ensure that regulation is unbiased; else, we will see wealth destruction of a colossal magnitude as we have seen in telecom.
- The Reserve Bank of India has slashed its policy rates for the fifth time this year (as of November 2019) to support growth.
- There is need to design an optimal mix of policies to reverse this deceleration. The scope for a strong monetary policy response is limited.
- The administration has given a cut in the corporate tax rate. This too will prompt companies to invest more.

© CONCLUSION

- The Indian economy is battling a severe demand slowdown and a liquidity crunch, which together resulted in the GDP growth rate and growth in private consumption expenditure falling. The slowdown in the economy is likely to have an adverse bearing on policymakers' goal of doubling the size of the economy to \$5 trillion by 2024. Hence, it is important to arrest the falling industrial production at the earliest, in order to revive growth.

NATIONAL GRID OF PORTS

◎ CONTEXT

- Government plans to develop a National Grid for Ports based on the synergy between the major and minor ports in the country.

◎ ABOUT

- During the 17th Meeting of Maritime states Development Council (MSDC)—the apex advisory body for the development of the maritime sector—government announced a plan to develop a National Grid for Ports.
- Out of the 204 minor ports in the country, only 44 are functional; the National Grid for Ports (NGP) will connect the major and minor ports.
- Ports have been centres of India's maritime activity in the past; the objective is to once again revive ports as important centres of sea trade.
- The objective is also to improve infrastructure and to reduce and finally eliminate human interface.
- Ministry of shipping is planning a wider expansion of port capacity across the country.
- The study on NGP will be different than 'Sagarmala' study.

Brief on Non-major ports:

- 'Non-major' ports are regulated by various state maritime boards. While major ports continue to attract the bulk of the traffic, several non-major ports have also started handling substantial volumes.
- Non-major ports have grown in importance in 3-4 states mainly because of their cargo-rich hinterland and proactive maritime boards. Gujarat (70%)-> Andhra Pradesh (16%)-> Maharashtra (7%)-> Odisha (4%).

How will NGP be developed?

- The plan will be carried through cooperation between the Centre and State.
- The Centre will share findings with the States so that the non-functional minor ports can be developed and made functional.
- Port capacity will be expanded by implementing well-conceived infrastructure development projects.
- A host of measures will be undertaken to cut time and cost, digitization of processes, and to strongly address environment-related concerns.
- Specific cargo linked to the ports and the downstream industry will be identified for the revival of each port.
- Over 100 minor ports in India could be renewed and integrated with major ports in a new system.
- States also run barges along the coastal route. All States will implement a set of common rules to ease movement of barges across the coastal route.
- States will be free to develop it themselves or through public-private partnership ports.
- Government is considering giving deep sea vessels to fishermen.
- There are two layers of port security – one is to scan containers that are handled and second is to track the ships that enter and exit the ports. Government is planning to implement international standards of security in major and non-major ports.

Benefits

- The coastal shipping and inland waterways sector are poised to play a vital role in the development of the country.
- The cost-effective and pollution-free water transport can reduce logistics costs in the country, making Indian goods more competitive in the global markets.

- NGP will help increasing the efficiency of port operations
- Developing connectivity between the major and minor ports can bring port-led development into the country.
- A NGP will ensure that cargo or agricultural produce located near the non-major ports can be shipped to major ports.

New Developments:**• Time Release Study (TRS)**

- In order to boost global trade by weeding out bottlenecks in the clearance of goods at ports, the Department of Revenue is conducting India's first national - Time Release Study (TRS) - a unique tool to measure the actual time required from the arrival of goods at port to their physical release. Mass clearances will reduce dwelling time, save money, and hence benefit all exporters, especially MSMEs. TRS will make the system uniform system and will make custom authorities more efficient.

• PCS 1x

- PCS1x is a cloud-based new generation system that brings together the different stakeholders of the maritime sector on a single platform. This system enables trade to have an improved communication with the customs, as they have also embarked on Application Programming Interface (API) based architecture, thereby enabling real time interaction.

◎ CONCLUSION

- Given other seminal initiatives such as the Regional (Air) Connectivity Scheme, national plans for development of transportation & logistics infrastructure and the consequent progress, the proposed national grid of ports is an idea with potential. It, however, needs careful consideration, planning and phased implementation, most importantly through extensive engagement with the trade/stakeholders.

OECD TAX PROPOSAL (BEPS 2.0)

◎ CONTEXT

- **OECD has proposed a new multilateral framework on taxation of new-age companies such as Netflix, Uber, Google and Facebook, which have a large customer base in developing countries like India as well as the EU.**

◎ ABOUT

- The OECD tax proposal aims to prevent digital Multinational Enterprises (MNEs) artificially showing profits in low-tax countries instead of where deal happens.
- The proposal requires them to pay tax wherever they have significant consumer-facing activities (market) and where they generate their profits, and not based on jurisdiction of their physical presence.
- The new OECD proposal brings together common elements of three competing proposals from member countries:
 - A user participation proposal;
 - A marketing intangibles proposal and;
 - A significant economic presence proposal (as proposed by India).
- **OECD tax proposal:** The proposal would re-allocate some profits and corresponding taxing rights to countries and jurisdictions where MNCs have their markets. It would ensure that MNEs conducting significant business in places where they do not have a physical presence, are taxed as per the following new unified rules:
 - Where tax should be paid ("nexus" rules; which are largely dependent on sales)
 - What portion of profits should be taxed ("profit allocation" rules)

- The proposal is based on the work of OECD/G20 Inclusive Framework on Base Erosion and Profit Sharing (BEPS).
- Discussions on the new proposal are in pipeline (as of November 2019) and all countries must agree for the rules to be enforced.

Base Erosion and Profit Sharing (BEPS):

- Base erosion and profit shifting (BEPS) refers to tax planning strategies used by multinational enterprises that exploit gaps and mismatches in tax rules to avoid paying tax. Developing countries' higher reliance on corporate income tax means they suffer from BEPS disproportionately.
- BEPS practices cost countries USD 100-240 billion in lost revenue annually. Working together within OECD/G20 Inclusive Framework on BEPS, over 130 countries and jurisdictions are collaborating on the implementation of 15 measures to tackle tax avoidance, improve the coherence of international tax rules and ensure a more transparent tax environment, fit for purpose for the global economy of the 21st Century.

Objectives of the new OECD tax proposal

- The idea of the proposal is to address the tax challenges arising from digitalisation of the economy and the rise of complex, global corporate tax structures.
- Changing nature of work, including automation, artificial intelligence and the rise of the gig economy, can erode tax revenues so severely that it may difficult to provide essential state services by 2040.
- The initiative aims to advance toward a consensus-based solution to overhaul the rules-based international tax system by 2020.
- The ultimate goal is to ensure that all MNEs pay their fair share of tax.
- The proposal aims to balance adherence to the arm's-length principle with formula based solutions.
- Failure to reach agreement by 2020 would greatly increase the risk that countries will act unilaterally, with negative consequences on an already fragile global economy.
- The proposal is part of wider efforts to restore stability and certainty in the international tax system, address possible overlaps with existing rules and mitigate the risks of double taxation.
- Beyond the specific elements on reallocating taxing rights, a second pillar of the work aims to resolve remaining BEPS issues, ensuring a minimum corporate income tax on MNE profits.
- Together, the OECD anticipates that these proposals will lead to a significant increase in global tax revenues.

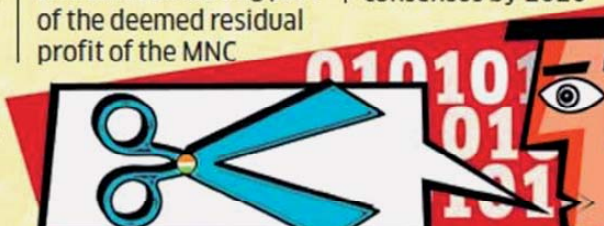
Arm's-length principle:

- The "arm's-length principle" of transfer pricing states that the amount charged by one related party to another for a given product must be the same as if the parties were not related. An arm's-length price for a transaction is therefore what the price of that transaction would be on the open market. For commodities, determining the arm's-length price can sometimes be as simple a matter as looking up comparable pricing from non-related party transactions, but when dealing with proprietary goods and services or intangibles, arriving at an arm's length price can be a much more complicated matter.

Fair Share

India communicates its reservations to OECD draft on digital taxation

WHAT DOES INDIA WANT	WHAT DOES THE OECD DRAFT SAY	WHAT NOW
It backs a fairer distribution of profits of MNCs with digital presence	It would ensure MNCs who don't have physical presence would be taxed	OECD will hold discussions on draft this month
It wants apportioning revenues based on economic presence	It is for reallocating part of the deemed residual profit of the MNC	Keen on building consensus by 2020
It has questioned distinction between two types of profits		



Why is India's take on the OECD tax proposal?

- India had sought changes in the OECD proposal on digital taxation, saying it would deny the country its proper share of taxes from multinationals such as Google, Facebook, Uber and Netflix, which generate substantial revenues locally.
- The proposed OECD formulation meant India getting little revenue despite the large digital and business presence of companies. This is because only "residual profit" will be apportioned among the countries where a company has its markets.
- Government is of the view that MNEs derive large revenues from countries such as India via their digital presence, without having a physical one, and has questioned the distinction between "routine profits"— which accrue due to physical presence — and "residual profits".
- For example, a cab aggregator (like Uber) operating via a mobile app has its core technology base in one country and software base in another but makes money in countries such as India. Hence the Indian method focuses on place of revenue generation.
- 28 developing nations backed India on its objection to the OECD tax proposal.
- Grouping believes new global rules to tax tech giants give undue taxation rights to United States.
- India's draft report on profit attribution gives weightage to sales and users as a factor for profit attribution. If finalised, it would result in higher revenues for countries like India having a large user base but a very low share in the value chain. This would be a vastly increased tax base.
- Most importantly the scope of the new proposal extends now from just digital business to all consumer-facing business. This is a very significant expansion as market is an important component and deserves to be a factor for profit allocation.

CYCLONE BULBUL

◎ CONTEXT

- Bulbul damages crops, houses, electricity and water connections in Odisha and West Bengal

◎ ABOUT

- Very Severe Cyclonic Storm Bulbul is an active tropical cyclone which struck the Indian state of West Bengal.
- At Category 2 hurricane-equivalent intensity and is currently a flood and storm surge threat to Bangladesh.

- Originating from the remnants of Severe Tropical Storm Matmo over the southern Bay of Bengal.
- It is only the fourth tropical cyclone ever recorded to regenerate over the Andaman Sea, having crossed Southeast Asia overland.
- The cyclone has been named by Pakistan.

Tropical cyclones

- Tropical cyclone, also called typhoon or hurricane, an intense circular storm that originates over warm tropical oceans and is characterized by low atmospheric pressure, high winds, and heavy rain.
- Drawing energy from the sea surface and maintaining its strength as long as it remains over warm water, a tropical cyclone generates winds that exceed 119 km per hour.
- Tropical cyclones are known by various names in different parts of the world. In the North Atlantic Ocean and the eastern North Pacific they are called hurricanes, and in the western North Pacific around the Philippines, Japan, and China the storms are referred to as typhoons. In the western South Pacific and Indian Ocean they are variously referred to as severe tropical cyclones, tropical cyclones, or simply cyclones.
- A characteristic feature of tropical cyclones is the eye, a central region of clear skies, warm temperatures, and low atmospheric pressure.

The conditions for the formation of Tropical cyclones

- The temperature of the surface layer of ocean water must be 26.5 °C or warmer, and this warm layer must be at least 50 metres deep.
- A pre-existing atmospheric circulation must be located near the surface warm layer.
- The atmosphere must cool quickly enough with height to support the formation of deep convective clouds.
- The middle atmosphere must be relatively humid at a height of about 5,000 metres above the surface.
- The developing system must be at least 500 km away from the Equator.

EMPEROR PENGUINS WOULD BE EXTINCT IF CLIMATE GOALS ARE NOT MET

◎ CONTEXT

- Warming climate may render Emperor Penguins, one of the most striking and charismatic animals on Earth, extinct by the end of the century, according to a new study by the Woods Hole Oceanographic Institution (WHOI).

◎ ABOUT

- The study was a part of an international collaboration between scientists.
- Penguins are this indicator species, this canary in the coal mine, they are warning us of the future effect of climate.
- The big message is we need to listen to the penguins, and implement policies to meet the Paris agreement's objective.
- Disappearing sea ice impacts Emperor Penguins directly, as the animals use it as a home base for their nine-month breeding season and for feeding and moulting.
- Emperor Penguins tend to build their colonies on ice with extremely specific conditions — it must be locked in to the shoreline of the Antarctic continent, but close enough to open seawater to give the bird's access to food for themselves and their young.
- As climate warms, however, that sea ice will gradually disappear, robbing the birds of their habitat, food sources and ability to raise their chicks.

Emperor Penguins

- The status of the emperor penguin, one of Antarctica's most iconic species, in the Red List of International Union for Conservation of Nature (IUCN) is Near Threatened.
- The emperor penguin is the tallest and heaviest of all living penguin species and is endemic to Antarctica. Emperor Penguins are the largest penguins in the world.
- Feathers of the head and back are black and sharply delineated from the white belly, pale-yellow breast and bright-yellow ear patches.
- While hunting, the species can remain submerged around 20 minutes. They can dive deeper than any other bird.
- This is the only penguin species that breeds during the Antarctic winter.
- Emperor Penguins don't build any sort of nests at all. Their feet and brood patches are the only "nest" their chicks get.



HOW SUCCESSFUL IS CLOUD SEEDING TECHNOLOGY?

◎ CONTEXT

- Haryana Deputy Chief Minister Dushyant Chautala has written to Prime Minister Narendra Modi, requesting him to "undertake cloud seeding plan to combat the air pollution engulfing Delhi and NCR".

◎ ABOUT

- Cloud seeding is a kind of a weather modification technology to create artificial rainfall. It was pioneered by atmospheric scientist Bernard Vonnegut.
- It works only when there are enough pre-existing clouds in the atmosphere.
- Rain happens when moisture in the air reaches levels at which it can no longer be held, and cloud seeding aims to facilitate and accelerate that process by making available chemical 'nuclei' around which condensation can take place.
- These 'seeds' of rain can be the iodides of silver or potassium, dry ice (solid carbon dioxide), or liquid propane. The seeds can be delivered by plane or simply by spraying from the ground.
- It is also known by other terms such as man-made precipitation enhancement, artificial weather modification, and rainmaking.

Where all has it been tried earlier?

- Cloud seeding is not new to India and it has earlier been attempted in Karnataka, Andhra Pradesh and Maharashtra to address drought.
- Similar experiments of cloud seeding had earlier been tried in Australia, America, Spain and France.
- In United Arab Emirates, the cloud seeding technique led to creation of 52 storms in Abu Dhabi.
- Also, such seeding is routine in Russia and other cold countries where the technique is used to disperse fog at the airports.

Cloud Seeding Methods

- There are three cloud seeding methods: static, dynamic and hygroscopic
- **Static cloud seeding** involves spreading a chemical like silver iodide into clouds. The silver iodide provides a crystal around which moisture can condense. The moisture is already present in the clouds, but silver iodide essentially makes rain clouds more effective at dispensing their water.
- **Dynamic cloud seeding** aims to boost vertical air currents, which encourages more water to pass through the clouds, translating into more rain. Up to 100 times more ice crystals are used in dynamic cloud seeding than in the static method. The process is considered more complex than static cloud seeding because it depends on a sequence of events working properly.
- **Hygroscopic cloud seeding** disperses salts through flares or explosives in the lower portions of clouds. The salts grow in size as water joins with them.

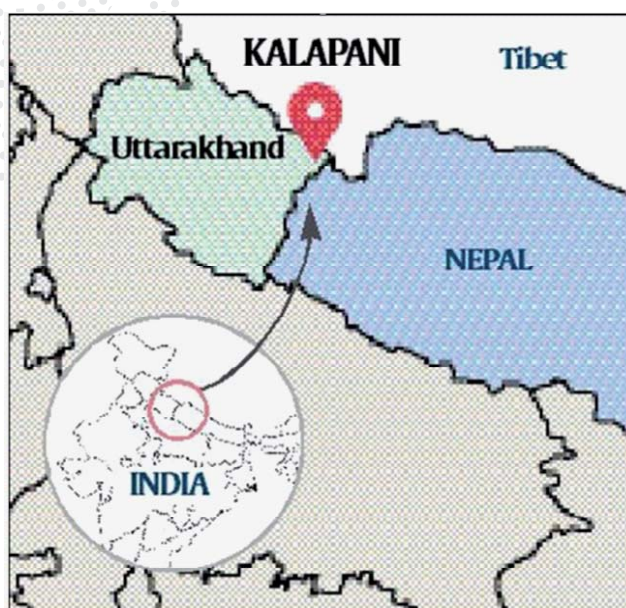
KALAPANI, A SMALL AREA ON THE INDIA MAP THAT BOTHERS NEPAL

◎ CONTEXT

- The new political map of India, recently released by the government to account for the bifurcation of Jammu and Kashmir, has triggered fresh protests over an old issue in Kathmandu.

◎ ABOUT

- Mapped within Uttarakhand is a 372-sq km area called Kalapani, bordering far-west Nepal and Tibet.
- Kalapani is a 35 square kilometre area. The Kali River in the Kalapani region demarcates the border between India and Nepal.
- While the Nepal government and political parties have protested, India has said the new map does not revise the existing boundary with Nepal.
- The Nepal government described India's decision as "unilateral" and claimed that it will "defend its international border".



Defining the boundaries

- Nepal's western boundary with India was marked out in the Treaty of Sugauli between the East India Company and Nepal in 1816.

- Nepali authorities claim that people living in the low-density area were included in the Census of Nepal until 58 years ago.
- Nepal claimed that the late King Mahendra had "handed over the territory to India". By some accounts in Nepal, this allegedly took place in the wake of India-China War of 1962.

Bilateral talks

- The Prime Ministers of the two countries discussed the issue in 2000, assuring Nepal that India would not occupy even an inch of Nepal.
- The boundary delineation exercise with Nepal is on-going under the existing mechanism.

SURANGA BAWADI ON WORLD MONUMENT WATCH LIST

◎ CONTEXT

- Suranga Bawadi, an integral part of the ancient Karez system of supplying water through subterranean tunnels built during Adil Shahi era in Vijayapura, is now set to get funding for restoration.

◎ ABOUT

- The unique underground water system in Vijayapura will receive funds for restoration work.
- A New York-based non-governmental organisation has included it in the World Monument Watch list for 2020 along with 24 other monuments from across the world.
- The monument has been selected under the 'Ancient Water System of the Deccan Plateau'.
- Suranga Bawadi is expected to get funds for restoration within the next two years.
- World Monuments Fund works in collaboration with the local stakeholders, including the district administration, the Archaeological Survey of India, and local explorers of ancient monuments, in highlighting the need for the restoration of ancient monuments.

Karez System

- Ancient water system 'Karez' which is believed to be one of the best systems in the world.
- Karez System is a method to harness water in which groundwater is brought to the surface by a tunnel.
- No mechanical pump or lift is used in the system.
- Karez system was built in the 16th century by Ali Adil Shah-I, his successor, Ibrahim Adil Shah-II, brought in several changes by adding more structures to strengthen it.
- Adil Shahis built the magnificent underground system to supply water to the city.

World Monuments Watch

- The World Monuments Watch is a global, nomination-based program that uses cultural heritage conservation to empower communities and improve human well-being.
- Through heritage, the program seeks to improve the resilience of communities, enhance social inclusion, and build new capacities in the heritage conservation field and beyond.
- Since its inception in 1996, the program has included 814 sites in 136 countries and territories.

How are the sites been selected?

- Sites included on the Watch are in need of urgent or timely action.
- To be selected for inclusion on the program, nominators must describe the major challenges that the stakeholders of a site are confronted with.
- Those challenges are diverse, and they may include the risk that a place may be permanently altered or lost.

Funding for the sites

- Inclusion on the Watch program results in various forms of assistance from World Monuments Fund, including financial support for interventions that use heritage conservation to deliver tangible social benefits.
- World Monuments Fund is not a grant making institution, and no minimum or maximum amounts of funding are guaranteed.
- Rather, through the Watch program, World Monuments Fund partners with local stakeholders to jointly design and implement targeted conservation programs, with budgets that vary.

WHAT IS ARTICLE 142, INVOKED BY SC TO GIVE LAND FOR A MOSQUE?

◎ CONTEXT

- The Supreme Court, implicitly referring to the demolition of the Babri Masjid at the disputed site, said that it was invoking Article 142 “to ensure that a wrong committed must be remedied”.

◎ ABOUT

- In granting five acres of land in Ayodhya, but outside the disputed area, to Muslim parties, the Supreme Court used extraordinary powers granted to it by Article 142 of the Constitution.
- “Justice would not prevail if the court were to overlook the entitlement of the Muslims who have been deprived of the structure of the mosque through means which should not have been employed in a secular nation committed to the rule of law”.
- The Constitution postulates the equality of all faiths. Tolerance and mutual co-existence nourish the secular commitment of our nation and its people.

About Article 142

- Article 142 provides for the enforcement of decrees and orders of Supreme Court.
- Article 142(1) states that Supreme Court in the exercise of its jurisdiction may pass such decree or make such order as is necessary for doing complete justice in any cause or matter pending before it and the orders shall be enforceable throughout the territory of India.
- Article 142(2) states that Supreme Court shall have the power to make any order for the purpose of (a)securing the attendance of any person, (b)the discovery or production of any documents or (c)the investigation or punishment of any contempt of itself.

Article 142 used earlier

- To provide relief to the thousands of people affected by the Bhopal gas tragedy.
- To cancel allocation of coal blocks granted from 1993 onwards without any specific finding.
- For restoring the white marble of the Taj Mahal.
- To probe the 2013 Indian Premier League spot-fixing scandal.

CONTRIBUTIONS OF HOMI J. BHABHA

◎ CONTEXT

- Recently the birth anniversary of Homi J. Bhabha was celebrated.

◎ ABOUT

- Homi Bhabha belonged to a wealthy Parsi family to Jehangir and Meheren Bhabha. He was educated at the Elphinstone College, Bombay and Cambridge University, UK.
- He pursued a degree in mechanical engineering as per the wishes of his family, and then acquired a degree in mathematics too. He studied under mathematician Paul Dirac. He was a brilliant student and won many scholarships.
- He was a nuclear physicist who made vital contributions to quantum theory and cosmic radiation and was the first chairman of the Atomic Energy Commission of India set up in 1948.

Contributions

- In 1933, he secured a doctorate in nuclear physics. His paper for his doctoral thesis was titled 'The Absorption of Cosmic radiation'. This won him the Newton Studentship which he held for three years. He completed his thesis under Ralph Fowler. Apart from working at Cambridge, he also spent time working in Copenhagen with Nobel laureate Niels Bohr.
- A paper he published in 1935 on electron-positron scattering was appreciated much by the scientific community and this phenomenon was later renamed Bhabha scattering.
- He returned to India in 1939 and then became the Reader in the Physics Department at the Indian Institute of Science, which was then headed by eminent scientist and Nobel laureate C V Raman.
- At the IISC, he established the Cosmic Ray Research Unit. He also played a big role in the establishment of the Tata Institute of Fundamental Research in Mumbai.
- Bhabha convinced the then Prime Minister Jawaharlal Nehru to start a nuclear programme.
- He started research on nuclear weapons in 1944. He set up the Tata Institute of Fundamental Research in 1945 and also the Atomic Energy Commission in 1948. He was the first chairman of the Commission.
- Bhabha represented India in IAEA and in 1955, was also the President of the United Nations Conference on the Peaceful Uses of Atomic Energy in Geneva.
- He was an aggressive promoter of nuclear weapons for the country's defence.
- Bhabha was instrumental in devising the strategy behind the country's nuclear programme. He pioneered the use of thorium to extract uranium from it rather than relying on the meagre reserves of uranium in India. He formulated India's three-stage nuclear power programme.
- Homi Bhabha died in a plane crash near Mont Blanc in the Swiss Alps while on his way to Vienna for a meeting on 24 January 1966. He was 56 years old.
- Various institutes have been named after this eminent physicist such as the Homi Bhabha National Institute, the Homi Bhabha Centre for Science Education and the Bhabha Atomic Research Centre (BARC). BARC (formerly known as the Atomic Energy Establishment) is India's leading nuclear research facility located in Bombay.

WIFI ACCESS NETWORK INTERFACE (WANI)

◎ CONTEXT

- The Indian Telecom Regulator, TRAI, recently proposed setting up a Wifi Access Network Interface (WANI) architecture with the ability to delink telecom infrastructure from access services.

© ABOUT

- A single interoperable platform that will enable the delivery of data and WiFi services to all Indians is the heart of India's new Digital Communications Policy (2018–2022).
- TRAI is inviting participation from companies/entities in the country to help set up a nation-wide interoperable WiFi network in form of Public Data Offices (PDOs) across the country.
- The new pilot project named Wi-Fi Access Network Interface (WANI) will run on a partnership model.
- Small entrepreneurs and shop owners can set up WiFi hotspots (or PDOs) by acquiring bandwidth from multiple Internet Service Providers (ISPs) and re-selling bandwidth as data to end customers at a cheaper rate.
- The pilot project of WANI will accept any company, proprietorship, societies, NGOs, etc. to help set up paid public WiFi access points across the country using a shared model.
- These companies will be able to purchase bandwidth from Public Data Office Aggregators (PDOAs)—a bandwidth aggregator which aggregates spectrum from multiple ISPs and provide them to PDO owners at cheaper rates.
- In this manner, the cost of setting up WiFi infrastructure will be shared without PDOs requiring to register for a telecom license.
- Wifire, PayTM, Linq and C-DOT have created WANI enabled mobile apps for consumers.
- WANI Mission: Existing ISPs and telcos do not have any form of incentive push to deliver WiFi services in rural locations. Hence in addition to existing service providers, small providers can also enter the public Wi-Fi ecosystem and have the capability and incentives to provide public Wi-Fi on a small scale.
- WANI vision: Under the framework, an entity setting up a Wi-Fi hot spot need not be responsible for its marketing, customer acquisition, payments and settlements. Unbundling creates efficiencies and customer convenience. There can be multiple payment mechanisms, multiple authentication mechanisms, but the idea is there should be a single-click on-boarding on the Wi-Fi hot spot.

How does WANI work?

- WANI is publicly open WiFi framework.
- Users will have to do one time KYC within WANI enabled application.
- Whenever WANI enabled application discovers and connects to a WANI compliant hotspot, application automatically sends a "digitally signed" authentication token.
- When audit is required, token can be uniquely mapped to a KYC user making it strongly traceable in case of incidents.
- Consumers get single-click connection experience.
- Discovery is simple as app allows users to discover nearby WANI compliant Access Points.
- User apps can provide location specific searches and allow users to discover "nearby" WiFi hotspots without being the range.
- App can allow features such as "favorites", "most recent", etc. for easy selection of regular connections.
- App providers can offer value added services such as availability, average speed, customer rating, etc.
- Users can add multiple devices into their profile to allow single click connect of all devices into single WiFi session.
- There is interoperability as users can choose any WANI enabled application.
- Users can setup profile with preferred Payment Gateway to collect and make secure payments.
- User can use any WANI enabled consumer app for KYC and use it to connect (and optionally pay).

- Today, many hotspots operate on the principle of “OTP” (one-time passwords) which provide access for a limited time. Such hazards will be done away with the WANI architecture.
- There is no credential exchange.
- There are cheap sachet-sized packs, as WiFi usage is to be sold to users for consumption in sachet format in denominations of Rs 2 to Rs 20, etc for 1 GB.
- WANI is a good example of unbundling/disaggregation—separation of the access from the underlying network through its platform.

- ‘Public Data Offices (PDOs)’ basically have features of Public Call Offices (PCOs) but it aggregates mobile data instead of providing cheap voice calls. Small shops, bakeries, eateries, café outlets, cinema halls, museums, residential builders, are examples of Public Data Offices or PDOs.
- ‘Public Data Office Aggregators (PDOAs)’ are PDOs who aggregate WiFi hotspots, bandwidth.
- ‘App Providers’ are any mobile app company that can provide and manage eKYC (via mobile no. or Aadhaar) as well as digital payment providers.
- ‘Hotspot providers’ are any domestic or foreign company manufacturing or providing WiFi/hotspot hardware, software services.

Benefits of WANI

- WANI is fully interoperable, secure, collaborative, multi-provider and unified KYC.
- Multi-device support with single-click secure user authentication.
- Users can use any preferred app for discovering and connecting to any WANI compliant hotspots with single-click.
- Users can use cash or any valid electronic payment mechanisms including upcoming UPI e-mandates
- Entrepreneurs can create “WiFi in a box” software/hardware stack.
- Allows any SME or local entities to set up public paid WiFi hotspots using the WiFi in a box package.
- Allows last mile connectivity to be bridged in India, especially in rural areas.
- WANI dismantles monopoly, increase innovation, and pass benefits to the end user.
- Offers payment integration as WANI could be directly integrated with all kinds of payments providers including wallets, credit/debit cards, net banking, and UPI.
- WANI offers huge employment potential.
- WANI data is expected to be cheaper than mobile data since it has no spectrum or expensive infrastructure costs.
- It is a robust fall-back for failing or underperforming mobile networks.
- It will enable access to development and livelihood interventions that persons in rural areas require.
- The cost-benefits of seamlessly connecting to alternate networks like WiFi or IoT will allow operators to save on enormous duplication costs.
- WANI will enable Indian IoT systems to be mobile but also allow users of IoT systems to economically access alternate networks—very essential in a country like ours, where networks lack ubiquity either in terms of coverage or quality.
- WANI architecture will enable India to adopt network slicing and other advanced features of 5G while maintaining the security and privacy of its citizenry.
- From a consumer perspective, quality will be enhanced while competition will help lower the price thresholds.
- Studies estimate a positive impact of >\$10 billion annually to the Indian economy.

CLIMATE CHANGE IS ALREADY DAMAGING HEALTH OF CHILDREN, SAYS LANCET REPORT

◎ CONTEXT

- Climate change poses an unprecedented health risk to children and is already having “persistent and pervasive” effects that will last throughout their lives, a major new study has warned.

◎ ABOUT

- The Lancet Countdown on Health and Climate Change’ is a comprehensive yearly analysis tracking progress across 41 key indicators.
- Without drastic reductions in emissions, escalating temperature increases will burden the next generation with high levels of malnutrition, weaker immune systems and higher risk of premature death.
- As temperatures rise, study predicts a reduction in yields of staple crops such as maize, rice and soybean, which will cause prices to rise and leave infants vulnerable to malnutrition, resulting in stunted growth and long-term developmental problems.
- Small children are particularly vulnerable to rises in infectious diseases caused by increasing temperatures and changing rainfall patterns.
- Warmer temperatures caused an increase in the spread of a bacteria that causes diarrhoeal diseases and wound infections.
- Over the past 30 years the number of climatically suitable days for Vibrio bacteria (which causes diarrhoea) to thrive have doubled.
- Dengue is also on the spread.
- The damage done in early childhood is persistent and pervasive, with health consequences lasting for a lifetime.

The Lancet

- The Lancet is a weekly peer-reviewed general medical journal.
- It is among the world’s oldest, most prestigious, and best known general medical journals.
- The journal was founded in 1823 by Thomas Wakley, an English surgeon who named it after the surgical instrument called a lancet.
- The journal publishes original research articles, review articles, editorials, book reviews, correspondence, as well as news features and case reports.
- The journal has editorial offices in London, New York, and Beijing.

GLOBAL POPULATION SUMMIT IN NAIROBI

◎ CONTEXT

- The Nairobi Summit of International Conference on Population and Development (ICPD25) wrapped up in Nairobi with more than 9,500 delegates from 170 countries, adopting 12 resolutions to promote reproductive health for women and girls.

◎ ABOUT

- This year marks the 25th anniversary of the ground breaking International Conference on Population and Development (ICPD), which took place in Cairo in 1994.
- World is aiming to achieve the United Nations Sustainable Development Goals by 2030, and universal sexual and reproductive health is central to much of this agenda – ending poverty, security good health and well-being, realizing gender equality and achieving sustainable communities, among many other goals. Urgent and sustained efforts to realize reproductive health and rights are crucial.

- Amid a loud domestic chorus demanding punitive actions to control population, at a global forum India reiterated to guarantee voluntary and informed choices of contraception.
- India also said it would increase its basket of contraceptives and improve the quality of family planning services.
- Some 25 years ago, India had committed to a similar approach to population control at the International Conference on Population and Development (ICPD) in Cairo. The country was among 179 countries that called for the empowerment of women and girls in all spheres.
- The recent move, however, on the back of the Government of Assam announcing a two-child limit for eligibility in government jobs. This has widely been seen as a punitive measure.
- For a country that would surpass China and become the world's most populous country by 2027, the idea of punitive action to control the population is not new. Despite India's commitment at an international platform, many states have taken steps to formalise population control through penal provisions.

Measures which can reduce the birth rate

- **Minimum age of Marriage:** As fertility depends on the age of marriage. So the minimum age of marriage should be raised. In India minimum age for marriage is 21 years for men and 18 years for women has been fixed by law. This law should be firmly implemented and people should also be made aware of this through publicity.
- **Raising the Status of Women:** There is still discrimination to the women. They are confined to four walls of house. They are still confined to rearing and bearing of children. So women should be given opportunities to develop socially and economically. Free education should be given to them.
- **Spread of Education:** The spread of education changes the outlook of people. The educated men prefer to delay marriage and adopt small family norms. Educated women are health conscious and avoid frequent pregnancies and thus help in lowering birth rate.
- **Adoption:** Some parents do not have any child, despite costly medical treatment. It is advisable that they should adopt orphan children. It will be beneficial to orphan children and children couples.
- **Change in Social Outlook:** Social outlook of the people should undergo a change. Marriage should no longer be considered a social binding. Issueless women should not be looked down upon.
- **More employment opportunities:** The first and foremost measure is to raise, the employment avenues in rural as well as urban areas. Generally in rural areas there is disguised unemployment. So efforts should be made to migrate unemployed persons from rural side to urban side. This step can check the population growth.
- **Development of Agriculture and Industry:** If agriculture and industry are properly developed, large number of people will get employment. When their income is increased they would improve their standard of living and adopt small family norms.
- **Family Planning:** This method implies family by choice and not by chance. By applying preventive measures, people can regulate birth rate. This method is being used extensively; success of this method depends on the availability of cheap contraceptive devices for birth control.

MERGING ASSAM RIFLES WITH ITBP

◎ CONTEXT

- Recently, Union Home Ministry proposed to merge Assam Rifles with the Indo Tibetan Border Police (ITBP).

◎ ABOUT

- Home ministry proposed to merge Assam Rifles with Indo Tibetan Border Police (ITBP). This would mean that ITBP that is currently responsible for guarding the Indo-China frontier will be deployed at the Myanmar border.
- The Myanmar border is guarded by Army along with Assam Rifles.
- The Assam Rifles is a paramilitary force under the operational control of the Army and administrative control lies with the Ministry of Home Affairs (MHA).
- In 2017, the home ministry sent a proposal to Army on dividing the Assam Rifles between the army and ITBP. But the army replied that the status quo should be maintained and giving away operational control of the force is not an option.
- The Assam Rifles undertakes counter-insurgency operations in conjunction with the army in the northeast and guards the 1,643 km long India-Myanmar border. It draws 80% of its officers from the army. Its director general is an army officer. If it is merged with the ITBP, then the latter will be deployed at the Myanmar border.
- The Indian Army and Assam Rifles have shown resentment reasoning that it will adversely affect the operations against the insurgency in North East. It is maintained that it would be a setback for "Operation Sunrise" against the Myanmar based North Eastern insurgent groups. The Army and Assam Rifles have carried out two phases of Operation Sunrise so far in close coordination with the Indian Army target camps of insurgent groups in Myanmar.
- The Assam Rifles has a training structure similar to that of the army. The army also proposed that the ITBP deployments along the Line of Actual Control with China should come under its operational control.

Concerns and Implications

- It would drastically affect the counter-insurgency grid and security of the Myanmar border.
- Indian Army has developed a working pattern and chemistry with Myanmar Army in controlling insurgency emanating from Myanmar. Giving the task of guarding Myanmar border to ITBP may unnecessary hamper the developments going on in the area towards peace.
- Indian Army and Assam Rifles have successfully implemented Operation Sunrise and there is no need to bring a novel phenomenon when the existing system is working well.
- After facing heavy losses following coordinated operations by the Myanmar and Indian armies forcing the Naga rebel group NSCN(K) to shut camps in Taga, Myanmar, the faction is again regrouping to take control of the lost ground, and this merger may provide them an opportunity to revive in the area.
- Assam Rifles is the only true paramilitary force in the country and is a second line of defence. The Rashtriya Rifles (involved in counter-terrorist operations in J&K) releases forces for conventional operations across the western border. Similarly, the Assam Rifles also provides the army with such options along the eastern front with China, which will not remain if it becomes part of the ITBP
