

CURRENT AFFAIRS

WEEKLY

WEEK-5
JULY, 2020

MAINS

➤ Consumer Protection Act, 2019

➤ NPAs may soar to 20-yr high

ECONOMY

➤ China-Bhutan Border Dispute

➤ Deepening India-South Korea ties

➤ New - Tech Cold War

INTERNATIONAL RELATIONS

➤ Plea Bargaining

POLITY & GOVERNANCE

➤ Deeper links between shrinking wetlands, environmental imbalance, and natural disaster

CONTEMPORARY ISSUES

➤ Mazhapolima: Ensuring water security through participatory well-recharge in Kerala.

GOOD GOVERNANCE

PRELIMS

➤ Mine Ploughs for T-90 Tanks

DEFENCE

➤ Indian Bullfrog

➤ KURMA App

ENVIRONMENT

➤ Government Sets Up Single-Window Clearance for Aviation Sector

➤ Zoram Mega Food Park

ECONOMY

➤ Kakrapar Atomic Plant

GEOGRAPHY

➤ Manodarpan

Non – Personal Data

GOVERNANCE

➤ Madhubani Paintings

INDIAN HERITAGE & CULTURE

➤ BlackRock Android Malware

SCIENCE & TECHNOLOGY

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— NOTE —

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- 5 (JULY, 2020)

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SECTION: A

(MAINS)

CURRENT AFFAIRS

CONSUMER PROTECTION ACT, 2019

CONTEXT

The Consumer Protection Act, 2019 came in to force from 20th July 2020. It has replaced the three-decade-old Consumer Protection Act, 1986.

Key Highlights of the Act

- It will empower consumers and help them in protecting their rights through its various notified Rules and provisions.
- **Central Consumer Protection Authority (CCPA):**
 - It is established to promote, protect, and enforce the rights of consumers.
 - It will be empowered to conduct investigations into violations of consumer rights and institute complaints/prosecution.
 - Order recall of unsafe goods and services
 - Order discontinuance of unfair trade practices and misleading advertisements
 - Impose penalties on manufacturers/endorsers/publishers of misleading advertisements
- The **rules for the prevention of unfair trade practices by e-commerce platforms** will also be covered under this Act.
 - Under this act, every e-commerce entity is required to provide information relating to return, refund, exchange, warranty and guarantee, delivery and shipment, modes of payment, etc. including country of origin which are necessary for enabling the consumer to make an informed decision at the pre-purchase stage on its platform.
- The e-commerce platforms have **to acknowledge the receipt of any consumer complaint within forty-eight hours** and **redress the complaint within one month** from the date of receipt under this Act.
- **Simplification of the consumer dispute adjudication** process in the consumer commissions:
 - It includes the empowerment of the State and District Commissions to review their orders.
 - Enabling a consumer to file complaints electronically and file complaints in consumer Commissions that have jurisdiction over the place of his residence.
 - Video-conferencing for hearing and deemed admissibility of complaints if the question of admissibility is not decided within the specified period of 21 days.
- **Alternate Dispute Resolution mechanism of Mediation:**
 - This will simplify the adjudication process.
 - A complaint will be referred by a Consumer Commission for mediation, wherever scope for early settlement exists and parties agree for it.
 - The mediation will be held in the Mediation Cells to be established under the aegis of the Consumer Commissions.
 - There will be no appeal against settlement through mediation.
- As per the **Consumer Disputes Redressal Commission Rules:**
 - There will be no fee for filing cases up to Rs. 5 lakh.
 - There are provisions for filing complaints electronically, credit of amount due to unidentifiable consumers to the **Consumer Welfare Fund (CWF)**.
 - The State Commissions will furnish information to the Central Government quarterly on vacancies, disposal, the pendency of cases, and other matters.
- **Product Liability**
 - The New Act introduces the concept of product liability and brings within its scope, the product manufacturer, product service provider, and product seller, for any compensation claim.
- The Act provides for punishment by a competent court for the manufacture or sale of adulterant/spurious goods.
 - The court may, in case of the first conviction, suspend any licence issued to the person for a period of up to two years, and in case of second or subsequent conviction, cancel the licence.
- The **Central Consumer Protection Council Rules** are provided for constitution of the **Central Consumer Protection Council:**
 - It will be an advisory body on consumer issues, headed by the Union Minister of Consumer Affairs, Food and Public Distribution with the Minister of State as Vice Chairperson and 34 other members from different fields.
 - The Council, which has a three-year tenure, will have Minister-in-charge of consumer affairs

from two States from each region- North, South, East, West, and North East Region.

- There is also provision for having working groups from amongst the members for specific tasks.

How is the Consumer Protection Act, 2019 better than Consumer Protection Act, 1986?

- In the previous act i.e Consumer Protection Act, 1986, there was no separate regulator while the Consumer Protection Act, 2019 provides for Central Consumer Protection Authority (CCPA).
 - Additional swift executive remedies are provided through CCPA.
- The provision of mediation cells was not there under the act of 1986.
- There were no provisions related to e-commerce in the previous act, while the 2019 act is extended to e-commerce.
- In the 2019 Act, the jurisdiction of the Consumer Commissions has also been expanded to allow

complaints to be made where the **complainant resides or personally works for gain**.

- Previously, in the 1986 Act, it could have been where complaints had to be instituted where the opposite party resides or conducted business, or where the cause of action arose.
- In the 2019 Act, product liability provision to deter manufacturers and service providers from delivering defective products or deficient services has been added.
- In the 2019 Act, there is provision for deterrent punishment to check misleading advertisements and adulteration of products

◎ CONCLUSION

Consumer Protection Act, 1986 provided single-point access to justice, which was also time-consuming. The new act protects buyers not only from traditional sellers but also from the new e-commerce retailers/platforms. This Act will prove a significant tool in protecting consumer rights in the country only if its provisions are implemented on the ground.

NPAS MAY SOAR TO 20-YR HIGH

CONTEXT

Indian banks' bad loan ratio is expected to climb to the highest level in more than 20 years as a protracted lockdown has severely disrupted business operations and left millions of people jobless, crimping their ability to repay loans.

What is a Non-Performing Asset (NPA)?

- NPAs or Non-Performing Assets are those kinds of loans or advances that are in default or arrears. In other words, these are those kinds of loans wherein principal or interest amounts are late or have not been paid for 90 days. These are also the kinds of loans where the lender considers the loan agreement to be broken and the receiver of the loan is unable to pay back the loan amount.

Semi-annual Financial Stability Report by RBI on NPA

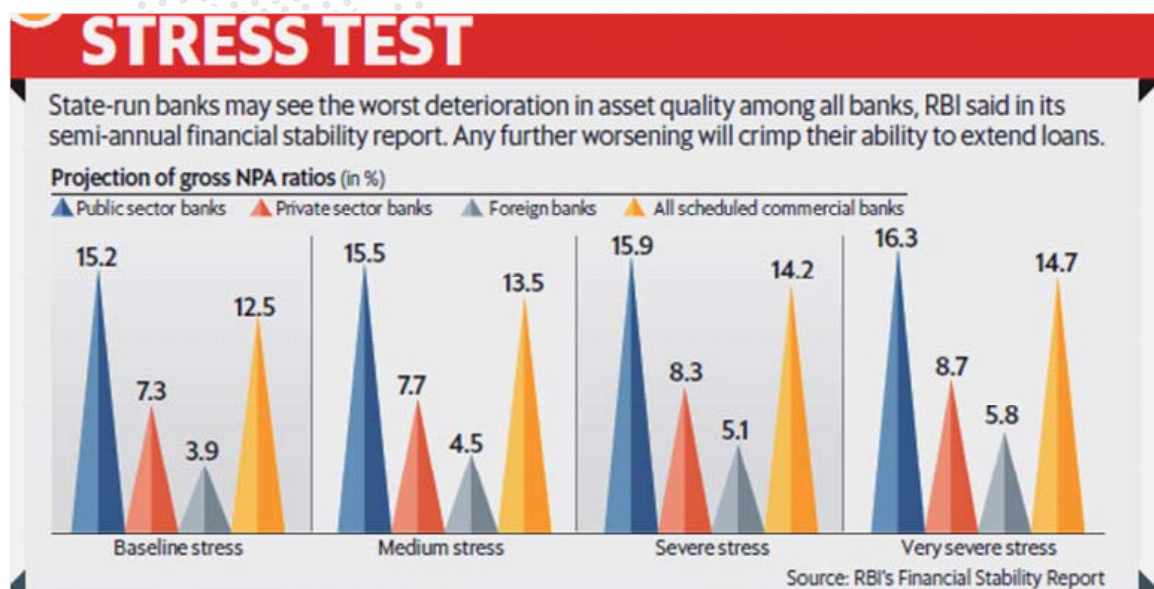
- Non-performing assets may rise 4 percentage points to 12.5% of total advances by March 2021, the highest since the year ended 31 March 2000, under the baseline stress scenario, the Reserve Bank of India said in its semi-annual Financial Stability Report.
- The central bank warned that if the economic conditions worsen further, the ratio may soar to 14.7% under the very severely stressed scenario.
- Deterioration in asset quality will put further pressure on lenders who are struggling with subdued credit demand amid the coronavirus pandemic and a mountain of bad loans.
- Banks are preparing for a further worsening of

asset quality by raising funds to bolster their capital buffers. The end of a moratorium on loan repayments, aimed at providing relief to businesses and individual may see many loan accounts turn non-performing.

- The rise in bad loans may further reduce the ability of banks, especially the weak ones, to extend credit, and the government may have to infuse more funds into state-run banks to build stronger buffers that can absorb loan losses.
- The RBI cautioned that the impact of the loan moratorium is still evolving and the exact extent of its impact on asset quality is difficult to ascertain accurately.
- Among commercial banks, the gross bad loan ratio of state-run banks could increase to 15.2% under the baseline scenario, the highest among its peer groups.
- Indian state-owned banks were just coming out of the last bad loan crisis and cleaning up their books when the coronavirus pandemic struck.

What led to the rise in NPAs in recent years?

- Some of the factors leading to the increased occurrence of NPAs are external, such as decreases



in global commodity prices leading to slower exports. Some are more intrinsic to the Indian banking sector.

- A lot of the loans currently classified as NPAs originated in the mid-2000s, at a time when the economy was booming and the business outlook was very positive. Large corporations were granted loans for projects based on extrapolation of their recent growth and performance.
- With loans being available more easily than before, corporations grew highly leveraged, implying that most financings were through external borrowings rather than internal promoter equity. But as economic growth stagnated following the global financial crisis of 2008, the repayment capability of these corporations decreased.
- This contributed to what is now known as **India's Twin Balance Sheet problem**, where both the banking sector (that gives loans) and the corporate sector (that takes and has to repay these loans) have come under financial stress.
- When the project for which the loan was taken started underperforming, borrowers lost their capability of paying back the bank. The banks at this time took to the practice of 'evergreening', where fresh loans were given to some promoters to enable them to pay off their interest. This effectively pushed the recognition of these loans as non-performing to a later date but did not address the root causes of their unprofitability.
- Further, recently there have also been frauds of high magnitude that have contributed to rising NPAs. Although the size of frauds relative to the total volume of NPAs is relatively small, these frauds have been increasing, and there have been no instances of high profile fraudsters being penalised.

What is being done to address the problem of growing NPAs?

- The measures taken to resolve and prevent NPAs can broadly be classified into two kinds – first, regulatory means of resolving NPAs per

various laws (like the Insolvency and Bankruptcy Code), and second, remedial measures for banks prescribed and regulated by the RBI for the internal restructuring of stressed assets.

- The Insolvency and Bankruptcy Code (IBC) was enacted in May 2016 to provide a time-bound 180-day recovery process for insolvent accounts (where the borrowers are unable to pay their dues).
- Under the IBC, the creditors of these insolvent accounts presided over by an insolvency professional, decide whether to restructure the loan or to sell the defaulter's assets to recover the outstanding amount.
- If a timely decision is not arrived at, the defaulter's assets are liquidated. Proceedings under the IBC are adjudicated by the Debt Recovery Tribunal for personal insolvencies, and the National Company Law Tribunal (NCLT) for corporate insolvencies.
- **SARFAESI Act:** It allows banks and other financial institutions to auction residential or commercial properties (of Defaulter) to recover loans.
- **Indradhanush plan:** To revamp or improve the functioning of public sector banks. Indradhanush mainly focuses on systemic changes in state-run lenders, including a fresh look at hiring, a comprehensive plan to de-stress bloated lenders, capital infusion, accountability incentives with higher rewards including stock options, and cleaning up governance.

◎ CONCLUSION:

The COVID-19 pandemic has severely affected the global economy. The Indian economy is further expected to undergo a difficult economic situation in the coming months. Subdued demand and NPA issues are likely to hold back growth in corporate banking. Hence, concerted efforts should be taken at this time by both RBI and the government to keep the financial system and financial markets sound, liquid and smoothly functioning so that finance keeps flowing to all stakeholders, especially those that are disadvantaged and vulnerable.

CHINA-BHUTAN BORDER DISPUTE

CONTEXT

China makes a new claim on the eastern border with Bhutan and reiterates it has a border dispute with Bhutan in the eastern sector.

What's behind China's expansion of its territorial dispute with Bhutan?

- The Sino-Bhutanese relationship normally flies under the radar. Bhutan has the distinction of being the only other country apart from India with which China has an unsettled land border.
- It is also the only state to border China that does not have official diplomatic ties with Beijing. But despite this lack of official relations, the two sides have worked for years to arrive at a resolution to their border disputes, which until now primarily focused on areas in the central and western sectors.
- The western sector dispute — over the Doklam plateau — has received the most attention after the 2017 India-China standoff there. The central sector disputes — over areas known as Jakarlung and Pasamlung — have received less attention comparatively.
- Even without formal diplomatic ties, Bhutan and China have held 24 rounds of border talks between their envoys; talks that have been frozen since their last round in 2016, partly due to the heightened tensions that erupted during the Doklam standoff. A 25th round is yet to take place.

Eastern sector claim:

- **The addition of the eastern sector is notable as this has not been part of the agenda across the 24 rounds of China-Bhutan border talks.** The China's MFA statement's inclusion of the eastern sector came shortly after the government of Bhutan issued a demarche to China after a Chinese delegate at the 58th Global Environment Facility Council, held earlier this summer, referred to the Sakteng Wildlife Sanctuary, an area in eastern Bhutan, as disputed.
- The claim itself may have some basis in history, but not one well supported by official Chinese maps. Back in 2017, in the course of studying the Sino-Indian and Sino-Bhutanese disputes over Doklam, it came across at least one older, unofficial Chinese map that portrayed a capacious dispute in the eastern sector.
- Now, that view has changed in Beijing. The political geography of the area in question bears underscoring: Given that India fully administers Arunachal Pradesh, even if Bhutan were to unilaterally cede this area, it would amount to an enclave without any direct border with China's Tibet Autonomous Region.

Dividing line

A brief overview of the boundary dispute between China and Bhutan

- Bhutan and China have no formal diplomatic relations but have held 24 rounds of boundary talks between 1984 and 2016
- Talks concentrated on north and west Bhutan regions
- Eastern Bhutan not part of the talks
- so far, say officials
- Sakteng sanctuary is situated close to the border with Arunachal Pradesh
- In June 2020, China attempted to stop UNDP-GEF funding for Sakteng by claiming it was disputed, but was overruled



The complicating factors:

- The novelty of China's claim in its dispute with Bhutan has already raised eyebrows, but there are other complicating factors here.
- First, the purported eastern sector dispute over the Sakteng Wildlife Sanctuary, in geographic terms, would be the single largest tranche of disputed territory across all sectors in the China-Bhutan context, representing about 11 percent of the territory currently administered by the Bhutanese government.
- Second, the territory in question abuts the Indian state of Arunachal Pradesh, which is itself claimed in its near entirety as part of Tibet.
- Not only is this the case, but the Sakteng area specifically borders Arunachal's western Tawang region, which China has particularly prioritized in negotiations with India; arguably, Tawang is the least negotiable piece of territory for Beijing in the entirety of the eastern sector.

Background of Border issues between Bhutan and China

- **Early Chinese territorial claims on Bhutan:** Chinese claims on Bhutanese territory were first made when Mao Zedong declared in the original 1939 version of The Chinese Revolution and the Communist Party that "the correct boundaries of China would include Burma, Bhutan, and Nepal".
- **The annexation of Bhutanese enclaves:** In July 1959, along with the occupation of Tibet, the Chinese People's Liberation Army occupied several Bhutanese enclaves in western Tibet which were under Bhutanese administration for more than 300 years and had been given to Bhutan by a Ladakhi King Singye Namgyal in the 17th century.
- **Chinese map claiming territories in Bhutan:** A Chinese map published in 1961 showed China claiming territories in Bhutan, Nepal, and the Kingdom of Sikkim. Incursions by Chinese soldiers and Tibetan herdsman also provoked tensions in Bhutan. Imposing a cross-border trade embargo

and closing the border, Bhutan established extensive military ties with India.

- **Engagement:** Until the 1970s, India represented Bhutan's concerns in talks with China over the broader Sino-Indian border conflicts. Obtaining membership in the United Nations in 1971, Bhutan began to take a more independent course in its foreign policy. In 1984, China and Bhutan began annual, direct talks over the border dispute. However, China's building of roads on what Bhutan asserts to be Bhutanese territory, allegedly in violation of the 1998 agreement, has provoked tensions.
- On 11 August 2016 Bhutan Foreign Minister Damcho Dorji visited Beijing, capital of China, for the 24th round of boundary talks with Chinese Vice President Li Yuanchao. Both sides made comments to show their readiness to strengthen co-operations in various fields and hope of settling the boundary issues.
- **Doklam crisis, 2017:** When China started constructing a road in the disputed area of Doklam, Bhutan asked for help from India and it sent the army to stop the construction. The military standoff in the area lasted more than two months. However, after diplomatic conversations between the two sides, both countries agreed to withdraw troops from the region.
- **Sakteng Wildlife Sanctuary:** China raised a new dispute over territory in June 2020 that has never come up in boundary talks earlier. Beijing objected to the grant for Sakteng Wildlife Sanctuary (SWS) in eastern Bhutan's Trashigang district bordering India and China, claiming that the location was disputed, during the virtual meeting of the Global Environment Facility (GEF) in the first week of June.

◎ CONCLUSION:

Given the ongoing Sino-Indian tensions in the western sector of their border in Ladakh, the timing of the revelation of this "new" dispute with Bhutan will likely be seen as coercive by India.

DEEPENING INDIA SOUTH KOREA TIES

CONTEXT

India-Republic of Korea (RoK) relations have made great strides in recent years and have become truly multidimensional, spurred by a significant convergence of interests, mutual goodwill, and high-level exchanges.

Bilateral relations

- Bilateral relations between India and South Korea, officially known as the Republic of Korea, were established in 1962 and upgraded to Ambassador-level in 1973.
- South Korea's open market policies found resonance with India's economic liberalization, and its 'look east policy' and 'act east policy', leading to the establishment of strong bilateral relations.

Political relations

- India played an important and positive role in Korean affairs after the latter's independence in 1945. During the Korean War (1950- 53), both warring sides accepted a resolution sponsored by India. A ceasefire was declared on July 27, 1953.
- In February 2006, former Indian President APJ Abdul Kalam visited RoK and his visit led to the launch of a Joint Task Force to conclude a bilateral **Comprehensive Economic Partnership Agreement (CEPA)**, which was operationalized on January 1, 2010.
- Following this, Korean President Lee paid a visit to India as Chief Guest at India's Republic Day celebrations on January 26, 2010. That is when bilateral ties between the two countries were raised to the level of strategic partnership.
- Both the countries signed the Civil Nuclear Energy Cooperation Agreement in 2011 during the then President Pratibha Patil's state visit to RoK.
- During Prime Minister Narendra Modi's visit to South Korea in 2015, the bilateral relationship was upgraded to 'special strategic partnership'.
- In a joint statement, PM Modi and President Park Geun-Hye agreed to establish a '**2+2' consultation mechanism** at Secretary/Vice Minister of Foreign Office and Defence Ministry.

Commercial relations

- Trade and economic relations between India and South Korea gathered momentum after the implementation of CEPA in 2010. Bilateral trade between the two countries in 2011 crossed \$20.5 billion, registering a 70 percent growth over two years.

- Bilateral Trade India's share in Korea's global trade was 1.89% in 2018, India's contribution to Korea's global imports increased from 0.78% in 2001 to 1.10% in 2018. India is Korea's 20th biggest source for imports and the 7th biggest export market as of 2018.
- India and South Korea have set a target to increase bilateral trade to \$50 billion by 2030 from \$20 billion in 2017-18 and to speedily conclude negotiations to upgrade the bilateral Comprehensive Economic Partnership Agreement (CEPA).
- Some of the major items that India exports to South Korea are mineral fuels, oil distillates (mainly naphtha), cereals, iron, and steel.
- Seoul's main export items are automobile parts, telecommunication equipment, hot rolled iron products, petroleum refined products, base lubricating oils, nuclear reactors, mechanical appliances, electrical machinery and parts, and iron and steel products.

Cultural relations

- India and South Korea established an **Indian Cultural Centre (ICC) in Seoul** in April 2011. Another Culture Centre was established in Busan in December 2013.
- To boost people-to-people relations and travel between the two countries, India extended the visa-on-arrival (VoA) facility for South Korean tourists in April 2014.
- Exchange of youth delegations between India and RoK has been taking place on an annual basis for several years now.
- Good air connectivity between the two countries has been established with Air India, Asiana Airlines, and Korean Air operating flights.
- In November 2015, the bilateral civil aviation agreement of 1994 was revised to increase weekly flights between the two countries to 19. This resulted in new operations by Korean Airlines, which then started direct flights to Delhi.
- **The Indian Culture Centre (ICC)** attempts to broaden base and appreciation of Indian culture by, for example, teaching south Indian dances to elementary school students in South Korea, or organising experiential sessions centred on Indian cuisine, are commendable.

The India-South Korea Advantage

- India is a key focus area in South Korean President Moon Jae-in's **New Southern Policy (NSP)** which complements Prime Minister Narendra Modi's emphasis on an Act East Policy (AEP).
- South Korea's technological expertise and the capital base found a very attractive match in India's expanding consumer base and lucrative market potential.
- Popular South Korean brands in India are on expansion mode. Research and Development (R&D) centres of Samsung and LG Electronics in Bengaluru are their latest, outside of Korea, and Hyundai's R&D centre at Hyderabad is one of its five global hubs.
- To propel this relationship and ease business issues, the Indian government has set up a Korea Plus initiative under Invest India which has facilitated numerous business queries.
- On its part, the South Korean government has established a New Trade Order Strategy Office and decided to form a Korea-India Future Strategy Group and the India-Korea Centre for Research and Innovation Cooperation. The Korea Trade-Investment Promotion Agency is also spreading its work in India.
- The tensions between India and China create a common interest for both South Korea and India.

Some issues

- However, the economic partnership is struck at \$22 billion annually, and their defence partnership appears to have receded from great all-round

promise to the mere sale and purchase of weapon systems.

- At the heart of this bilateral stasis is the fact that, despite the best efforts of many well-intended leaders, Indians and South Koreans are failing to touch a mutually meaningful chord of empathy and move closer to each other as people. This is at least in part due to cultural prejudices on both sides, which stands in the way of a relationship based on openness, curiosity and warmth.
- It is not that efforts to correct distortions in such perception have been wanting. Yet, clearly, whatever bilateral progress has been made, say in the realm of trade and investment, has not lent sufficient momentum that people start building bridges in other areas. So, for example, there may be a widespread perception among South Koreans of India as a third world country, rife with poverty and hunger.
- It is often the case that Indians are unable to distinguish between the cultural and social characteristics of South Koreans and people of other East Asian nations.

◎ CONCLUSION

As the two countries come closer, it is pertinent to reflect on poet and Nobel laureate Rabindranath Tagore's evocative poem Lamp of the East which revolves around Korea's promisingly bright future: "In the golden age of Asia Korea was one of its lamp bearers, and that lamp is waiting to be lit once again for the illumination of the East". India and Korea seem set to light that lamp together.

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BATCH STARTS

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NEW - TECH COLD WAR

CONTEXT

The U. S. has moved to block China's access to chip-making tools and designated Huawei, ZTE as national security threats.

◎ BACKGROUND

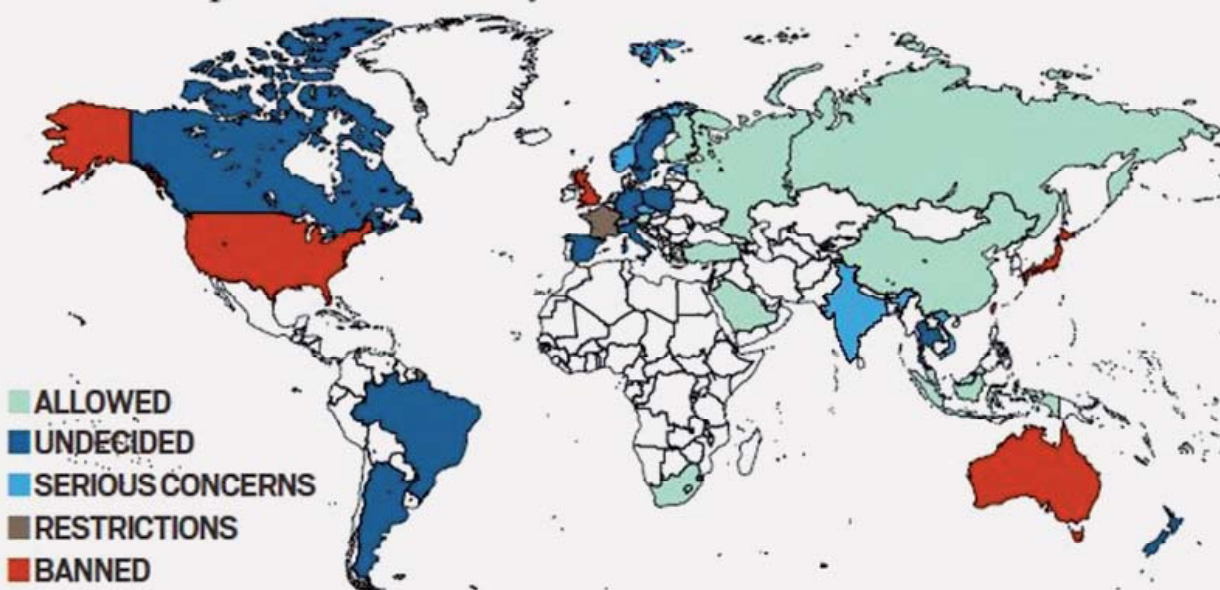
- A report by the US House Intelligence Committee flagging issues posed by Chinese telecom companies Huawei Technologies and ZTE nearly a decade ago has evolved into a full-scale duel between the two global technology powerhouses.
- In February 2011, Huawei published an open letter to the US government denying the security concerns raised about the company or its equipment, and requesting a full investigation into its corporate operations.
- In response, the House Permanent Select Committee on Intelligence began an investigation in November 2011 into "the counterintelligence and security threat posed by Chinese telecommunications companies doing business in the US".
- In its report submitted in 2012, the House panel noted that "Huawei and ZTE cannot be trusted to be free of foreign state influence and thus pose a security threat to the United States".
- Last month, the US Federal Communications Commission designated the two companies as national security threats.
- A subsequent move by the UK to block Huawei from its 5G networks aligns with the US view and marks an escalation of the Sino-American tech slugfest to beyond just these two countries.

How could this develop into a tech cold war?

- Most observers refer to this as a 'technological cold war' that could extend beyond just the US and China, and compel other countries, including India, to effectively choose between one camp and the other.
- It is being described as a geopolitical struggle over technology that threatens to divide the world into two distinct technological blocs, with both countries striving to limit the other's access to its advanced know-how.
- The main challenge is whether other countries think the risks are high enough to dump a cheaper, viable option.
- For China, the action has come at a time when 5G is set to be rolled out globally. For a lot of countries, a viable 5G rollout will need Chinese firms.

WHERE HUAWEI IS ALLOWED IN 5G, WHERE IT IS NOT

Countries' positions as of July 15



- But the 5G network in China relies on key components from the US, and the new American restrictions on the use of chipmaking tools mean Huawei could face shortages in the supply of specialist chips.

India's Position

- In December 2009, the Department of Telecommunications (DoT) had asked Indian mobile companies to suspend deals with Chinese equipment makers after fears that Chinese equipment was being used for hacking and spying. But India has never fully banned Chinese companies from its telecom equipment industry.
- After the recent standoff in Ladakh, the government has asked the state-owned telecom service providers to exclude Chinese companies from the scope of their network upgrade contracts; this was part of the wider decision to signal curbs on Chinese investments and tech companies in the country.
 - India justified the ban on 59 mobile apps with Chinese links on grounds of a threat to national security.
- India's hesitation in completely banning the Chinese equipment has derived from the view that the Chinese have brought in a semblance of competitiveness to a market earlier dominated by pricier European firms. However, the border

clashes and the US action could now force India into the anti-China camp.

Implications for the stakeholders in the telecom industry

- Huawei could face shortages in its supply of specialist chips.
- Globally, the concern is that the fresh wrangling could end up in cascading actions by other western countries
- This could have a bearing on the growing competition to dominate next-generation technologies such as 5G networks and artificial intelligence, and impact the plans of most countries preparing to transition to a 5G regime, including India.

◎ CONCLUSION

With the Chinese being increasingly blocked by governments in 5G networks, other global players could be at a competitive advantage. Even in the US, small operators in rural parts of the country will no longer be able to access federal subsidies to buy or maintain Chinese equipment and will be forced to deploy components by other manufacturers. This could have a bearing on how the global 5G rollout takes place, especially in the countries outside of North America and Europe.

PLEA BARGAINING

CONTEXT

Many members of the Tablighi Jamaat belonging to different countries have obtained release from court cases in recent days using plea bargaining.

◎ ABOUT

- Accused of violating visa conditions by attending a religious congregation in Delhi, these foreign nationals have walked free after pleading guilty to minor offences and paying the fines imposed by the court.
- These cases have brought the focus on plea bargaining as a practice by which time-consuming trials can be avoided.

What is Plea Bargaining?

- It refers to a person charged with a criminal offence negotiating with the prosecution for a lesser punishment than what is provided in law by pleading guilty to a less serious offence.
- It primarily involves pre-trial negotiations between the accused and the prosecutor. It may involve bargaining on the charge or in the quantum of sentence.

Few countries where Plea Bargaining is practiced

- In 1975, the Law Reform Commission of Canada defined 'plea bargaining' as 'any agreement by the accused to plead guilty in return for the promise of some benefit'.
 - But over a period of time there was a movement away from the use of the term 'plea bargaining' and toward more neutral expressions such as 'plea discussions', 'resolution discussions', 'plea negotiations', and 'plea agreements'.
- It is common in the United States and has been a successful method of avoiding protracted and complicated trials. As a result, conviction rates are significantly high there.
- In the U.S. and other countries, the prosecutor plays a key role in bargaining with the suspected offender.

Indian Scenario

- There has always been a provision in the Code of Criminal Procedure for an accused to plead 'guilty' instead of claiming the right to a full trial, but it is not the same as plea bargaining.

- The **Law Commission of India, in its 142nd Report**, mooted the idea of "**concessional treatment**" of those who plead guilty on their own volition but was careful to underscore that it would not involve any plea bargaining or "haggling" with the prosecution.
- The concept was not part of the law until 2006. Plea bargaining (Doctrine of Nolo Contendere) was introduced in 2006 as part of a set of amendments to the CrPC as Chapter XXI-A, containing Sections 265A to 265L.
- The Supreme Court of India has examined the concept of plea-bargaining in the case of **Murlidhar Meghraj Loyat v. State of Maharashtra and Kasambhai v. the State of Gujarat**.
 - In Murlidhar Meghraj Loya vs the State of Maharashtra, the Supreme Court criticized the concept of Plea Bargaining and said that it intrudes upon the society's interests.
 - In Kasambhai's case, the Supreme Court resisted a plea of guilt based on plea-bargaining, as it would be opposed to public policy, if an accused were to be convicted by inducing him to plead guilty, by holding out a light sentence as an allurement.

To what cases is it applicable?

- The Indian code makes plea bargaining a process that can be initiated only by the accused; further, the accused will have to apply to the court for invoking the benefit of bargaining.
- Cases for which the practice is allowed are limited. Only someone who has been charge-sheeted for an offence that does not attract the death sentence, life sentence, or a prison term above seven years can make use of the scheme. It is also applicable to private complaints of which a criminal court has taken cognisance.
- Categories of cases that cannot be disposed of through plea bargaining are those that involve:
 - Offences affecting the "socio-economic conditions" of the country, or
 - Committed against a woman or a child below the age of 14.

Benefits of Plea Bargaining

- The **Justice Malimath Committee** on reforms of the criminal justice system endorsed the various recommendations of the Law Commission concerning plea bargaining.
- The practice would ensure a speedy trial, end uncertainty over the outcome of criminal cases, save litigation costs, and relieve the parties of anxiety. It would also have a dramatic impact on conviction rates. It may help offenders make a fresh start in life.

Drawbacks

- **Voluntary Mechanism:** The applicant should approach the court stating that it is a voluntary preference and that he has understood the nature and extent of punishment provided in law for the offence.
- **Non-Binding on the court:** If the applicant reaches an agreement with the prosecutor, the court is not bound to accept this agreement.

- It may lead to poor investigatory procedures.
- **Coercive Manipulation:** Its close relationship with rewards, threats, and coercion potentially endanger the correct legal outcome.
- **It provides for lighter sentence even if the person is found guilty.**
- It requires a defendant to plead guilty to the lighter charges; it eliminates the chance for an appeal.

◎ CONCLUSION

Plea bargaining has been introduced to overcome the problem of overcrowded jails, overburdened courts, and abnormal delays; it may also result in faster disposal of cases. But the reason behind the delay in trials can be traced to the operation of the investigative agencies as well as the judiciary. Therefore reformation of the existing system may be a more prudent approach rather than introducing a parallel arrangement (as recommended by the Law Commission) or supplementing the present arrangement.

CONTEMPORARY ISSUES

DEEPER LINKS BETWEEN SHRINKING WETLANDS,
ENVIRONMENTAL IMBALANCE, AND NATURAL
DISASTER

CONTEXT

The rapid development is also rapidly violating the environment. The development has provided us with facilities, but their disadvantages are also being seen in society and nature. Modern development has caused the most damage to our environment and wetlands.

Human Causes

- The sewage from the factories, mining, and excessive exploitation of groundwater are some of the human causes that have caused great damage to wetlands.
- At the same time, wetlands are losing their true form due to natural causes like sea-level rise, climate change, storms, etc.

Example of Jharkhand

- According to environmental institutions, Jharkhand has about **25 per cent** of the land wetlands. Out of which **12 per cent** has been encroached.
- Buildings have been constructed by filling these wetlands. Many of these are government buildings. Thus, In addition to geo-mafias, government departments are also responsible for ending the existence of ponds.
- Any construction work is also prohibited within a radius of at least 200 metres from the last end of the wetland area.

Shrinking water sources

- Sources of fresh drinking water worldwide are rapidly depleting, causing a crisis for human life on Earth in the near future.
- **Urbanization, industrialization, increasing demand for land for roads, rail routes, etc., the rapid expansion of agriculture has eliminated 35 percent of water sources like lakes, rivers, swamps, and trenches between 1970 and 2015.**
- The water sources, considered to be extremely important to the world's ecosystem, are spread over **12 million square kilometers worldwide.**
- But, since 2000, the rate of decline has increased rapidly.

- The global assessment has identified wetlands as the **most at-risk ecosystem.**
- According to UNESCO, it affects 40% of the world's flora and fauna inhabit or breed in wetlands.

World Wetland Day

- World Wetland Day is celebrated **on February 2.**
- It aims to spread awareness about the importance of wetlands such as marshes and mangroves in the face of global warming.
- The theme of World Wetlands Day for 2020 this year was '**Wetlands and Biodiversity**'.

What is a Wetland?

- Submerged lands are called wetlands. Natural or artificial, permanent or temporary, full-term humid or short-term, stable water or unstable water, clean water or unclear, saline, muddy water- all these water sites are covered under wetland.
- Seawater, where the depth of efflux water does not exceed **six meters**, is also called wetland.
- Thus, water-rich marshy forest land (Swamps), marshy bush-rich sites (Marsh), grass-rich marshy marshes, water-logged grassland (bogs) mineral-rich wetlands (Fens) rotten-necked vegetation wetlands (Peatland) swamps, rivers, lakes, flood areas, flooded forests, seaside bushed sites (Mangroves) Delta, paddy fields, coral reefs, dams, canal waterfalls, desert waterfalls, glaciers, seashore tides, etc all these areas are called wetlands.
- Humanized artificial water sites like fisheries, reservoirs, etc. also come under the definition of a wetland.
- Each wetland has its own ecosystem, biodiversity, and vegetative diversity. These wetlands are habitats of aquatic animals, birds, etc.

Importance of Wetlands

- Wetlands are called kidneys of the biosphere, which perform an accumulation, biological, geochemical, hydrology, climate, and gas control functions.
- Wetland systems are of great importance for maintaining the stability of ecosystems and preserving the biological diversity of plant species that grow thereon.
- In fact, wetlands are a specific type of ecosystem and an important part of biodiversity. Being a meeting point of aquatic and terrestrial biodiversity, the wetland is a rich ecosystem with an abundance of wild animal species and flora.
- More than 40 percent of the species live in wetlands and are nourished through them.
- Wetland is an extremely productive aquatic ecosystem. Wetlands not only store and preserve water but also reduce the flood menace by covering the water in addition to the flood.

- Wetland serves as a natural and efficient carbon sink. For example, swampy moss is spread over only 3% of the land, but it has the potential to absorb carbon in just twice as much as all forests in the world.

◎ CONCLUSION

- India is a signatory to the Ramsar Convention (February 1982), an international treaty for the conservation and sustainable use of wetlands. The country has only 26 sites designated as wetlands of international importance, with a surface area of 689,131 hectares, whereas a much smaller country like the UK has 169 Ramsar sites. Even these 26 sites are plagued by uncontrolled development and illegal encroachment.
- 90% of the world's disasters are water-related and affect 60% of people living in coastal areas with floods or tsunamis. Wetlands act as buffers against climate-related disasters, the way to avoid the accidental effects of climate change.

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MINE PLOUGHS FOR T-90 TANKS

◎ CONTEXT :

The Acquisition Wing of the Ministry of Defence (MoD) signed a ₹ 557-crore contract with the Bharat Earth Movers Limited (BEML) for the procurement of 1,512 mine ploughs for T-90 Tanks. The induction is expected to be completed by 2027.

◎ ABOUT:

- These mine ploughs will be fitted on T-90 Tanks of the Indian Armoured Corps which will **facilitate individual mobility to the tanks** while negotiating a minefield.
- Mine ploughs help tanks to clear minefields and minimize risks to men and machines.
- The mobility of the tank fleet will enhance manifold which in turn would extend the reach of the armored formations deep into enemy territory without becoming a mine causality.
- As per the procedure, the contract has Buy and Make (Indian) categorisation with a minimum of 50% indigenous content in the Make portion.
- It is to be noted that the Russian-origin T-90 main battle tanks were recently deployed by the Indian Army in the Galwan Valley sector of Ladakh amid the border dispute with China.

Features of the T-90 Tank

- It has the capability to deal with Biological and Chemical weapons.
- It is the **Main Battle Tank** of the Indian Army and has the best-armored protection.
- This Tank is of **Russian origin**. But is now built-in India and can fire 8 shells in 60 seconds
- It comes with 125 Mm main gun to make surefire and can launch a missile up to 6 km.
- It is considered to be the lightest and the strongest tank in the world and weighs around 48 tons.
- With the ability to fight in day/night, it comes with a missile attack shield.
- Has a powerful 1000 horsepower engine and can run with a speed of 72 km/h. And can cover 550 km at a time.

Bharat Earth Movers Limited (BEML)

- BEML is an Indian Public Sector Undertaking with headquarters in Bengaluru, Karnataka.
- The company manufactures a variety of heavy equipment, such as that used for earth moving, transport and mining.
- BEML has manufacturing plants in Kolar Gold Fields, Bengaluru, Mysore and Palakkad.

INDIAN BULLFROG

◎ CONTEXT:

As the monsoon arrives, the Indian Bullfrog has made its presence felt in the rainy season.

◎ ABOUT:

- At any other time during the year, the Indian Bullfrog roams alone and has a varied dull olive green-brown appearance, camouflaging well with their immediate surroundings.
- When the rain comes down, their breeding season begins, and the males, now yellow, with two blue vocal sacs, set out in search of females that are generally larger.

Indian Bullfrog

- **Scientific Name:** *Hoplobatrachus tigerinus*.
- **Common Name(s):** Indian Bullfrog, Bull Frog, Golden Frog, Tiger Frog, Tiger Peters Frog.
- **Distribution:** This species is found throughout most wetland areas of India, Bangladesh, northern Pakistan, southern parts of Nepal, and Myanmar. It has also been introduced to the Maldives and Madagascar.
- **Habitat:** It is mainly aquatic, inhabiting mostly freshwater wetlands, both natural and artificial. It is absent or uncommon in forested areas and coastal regions.
- **Conservation Status:**
 - **IUCN Status:** Least Concern
 - **Appendix II** of CITES.
 - **Schedule IV** of the Indian Wildlife (Protection) Act, 1972.
- **Key Points:**
 - The bullfrogs are **prolific breeders**: they have short breeding seasons, and each egg clutch can contain up to 5,750 eggs. Its tadpoles are carnivorous and eat other tadpoles (including their species).
 - They can be identified by the pointed snout and long hind limbs, which help them jump.
 - These are **nocturnal and formidable ambush predators**.

KURMA APP

- ◎ **CONTEXT:** Union Environment and Information & Broadcasting Minister Prakash Javadekar hailed the **KURMA** mobile application as a unique tool for tracking and reporting Indian turtles.
- ◎ **ABOUT:**
 - The Mobile Application, KURMA, was launched on **23rd May** this year on the occasion of **World Turtle Day**. The citizen science initiative aims at the conservation of turtles and tortoises.
 - The mobile application has been developed by the **Indian Turtle Conservation Action Network (ITCAN)** in collaboration with the **Turtle Survival Alliance-India and Wildlife Conservation Society-India**.
 - It provides users the database to identify a species and also provides the location of the nearest rescue centre for turtles across the country.
 - It serves as a digital database, with a built-in digital field guide covering 29 species of freshwater turtles and tortoises of India, and information on turtle identification, distribution, vernacular names, and threats.
 - Freshwater turtles and tortoises are referred to as the '**non-marine**' **chelonians**, as they lack the adaptation to survive in seawater.
 - Turtles are one of the most threatened groups of vertebrates – India is home to 28 species of non-marine Chelonians, of which 54% are listed as Threatened in the IUCN Red List.

Concerns

- Tortoise and freshwater turtles are among the most trafficked in the country.
 - A report released in 2019 by TRAFFIC, showed that at least 200 tortoises and freshwater turtles fall prey to illicit poaching and smuggling every week.

- One of the major challenges for freshwater turtle conservation in the country is that wildlife crime prevention agencies are not sufficiently equipped to know how to distinguish one species from the other, or their protection status under CITES (Convention on International Trade in Endangered Species) and the Wildlife Protection Act.

World Turtle Day 2020

- World Turtle Day is observed on May 23 annually. The day is celebrated to make people aware of turtle and tortoise and their habitats.
- Every year since 2000, **American Tortoise Rescue (ATR)**, a nonprofit organization, sponsors the celebrations for World Turtle Day.
- Theme of World Turtle Day 2020: **'Adopt, Don't Shop'**.
- The day was celebrated by National Mission for Clean Ganga (NMCG), along with the Wildlife Institute of India (WII), in India.

GOVERNMENT SETS UP SINGLE-WINDOW CLEARANCE FOR AVIATION SECTOR

◎ CONTEXT:

The civil aviation ministry has set up a single-window clearance mechanism to expedite various investment proposals in the domestic aviation industry.

◎ ABOUT:

- Ministry of Civil Aviation (MoCA) has set up an Investment Clearance Cell (ICC) for prompt assistance and clearance.
- Earlier the setting up of the ICC was announced by in 2020-2021 Union Budget in February this year.
- The ICC is a 10-member body headed by Amber Dubey, Joint Secretary in the Aviation Ministry.
 - Of the rest nine members on board:
 - ▶ Five are from the aviation ministry, each from the Airports Authority of India and its cargo and logistics business subsidiary AIACLs, one from the Directorate General of Civil Aviation, one to be co-opted by the chairman as per the requirements.
- **Functions:**
 - The ICC has been mandated to serve as a single-window system for attracting investment and its terms of reference include accelerating investments, bringing projects to the Empowered Group of Secretaries (EGoS) which require special incentive, policy interventions, etc.
 - It will also identify projects and report to EGoS and maintain active contacts with investors and work with the states, duly adopting ways of on-boarding the states to make them a part of the institutional set-up.
 - It will identify policy and regulatory issues that come in the way of investments and engage with potential investors to bring the proposal for consideration of EGoS.
- **Need for ICC**
 - The Indian aviation sector is hit severely by the coronavirus pandemic and economic downturn.
 - Rating agency Icri expects India's GDP to contract by 9.5 percent this fiscal on account of the localised lockdowns put in place by various state governments and rising cases of coronavirus infection.

ZORAM MEGA FOOD PARK

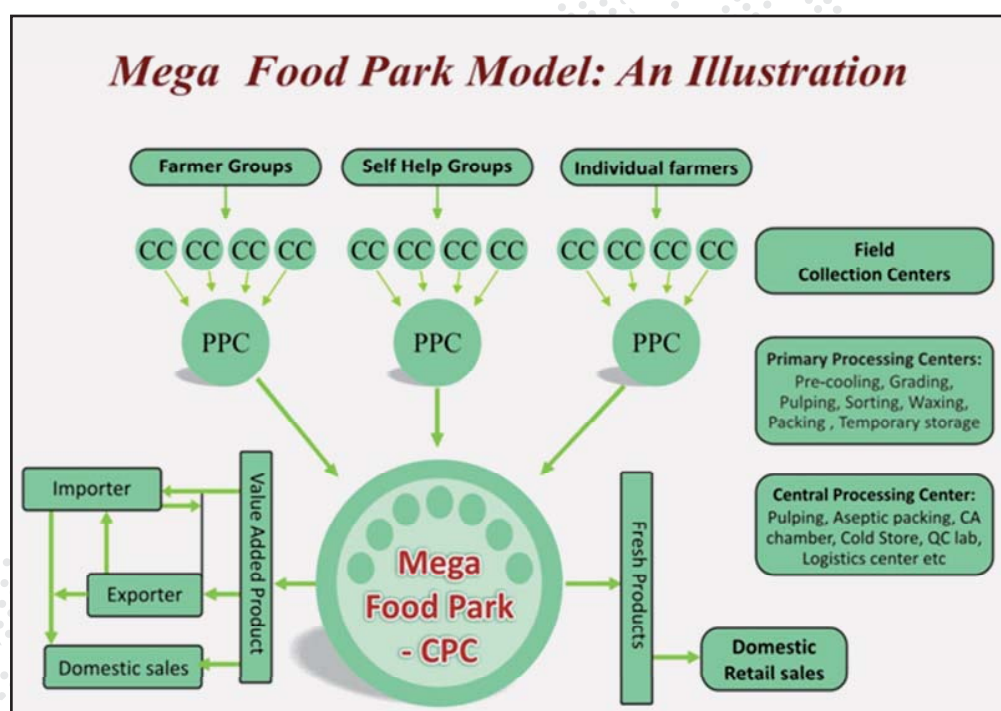
◎ CONTEXT:

Recently, the Zoram Mega Food Park was inaugurated in the state of Mizoram.

◎ ABOUT:

- The Zoram Mega Food Park is located at **Village-Khamrang in Kolasib District, Mizoram**. This is the first Mega Food Park operationalized in the State of Mizoram.
- It has been set up in 55.00 acres of land at a project cost of Rs. 75.20 crore.
- This Mega Food Park will benefit the people of Kolasib-District as well as the adjoining areas. This park will help in enhancing the income of farmers and ensuring the fair price of farm produce.
- It will provide direct and indirect employment to 5,000 persons and benefit about 25,000 farmers in the CPC (Core Processing Centre) and PPC (Primary Processing Centre) catchment areas.

Mega Food Park Scheme



- It was launched in 2008 by the Ministry of Food Processing Industries.
- It aims at providing a **mechanism to link agricultural production to the market** by bringing together farmers, processors, and retailers to ensure maximizing value addition, minimizing wastage, increasing farmers' income, and creating employment opportunities particularly in the rural sector.
- The Scheme is **based on the "Cluster" approach** and envisages the creation of state of art support infrastructure in a well-defined agri / horticultural zone for setting up of modern food processing units in the industrial plots provided in the park with the well-established supply chain.
- **Components of the Scheme:**
 - **Collection Centers (CCs) and Primary Processing Centers (PPCs):** These components have facilities for cleaning, grading, sorting and packing, dry warehouses, specialized cold stores.

- **Central Processing Centers (CPCs):** This Includes common facilities like Testing Laboratory, Cleaning, Grading, Sorting and Packing Facilities, Dry Warehouses, specialized storage.
- **Cold Chain Infrastructure** includes Reefer Vans, Packaging Unit, Irradiation Facilities, Steam Sterilization Units, Steam Generating Units, and Food Incubation cum Development Centers, etc.
- The scheme is implemented by a **Special Purpose Vehicle (SPV) which is a Body Corporate** registered under the Companies Act, 2013.
 - State Government, State Government entities, and Cooperatives are not required to form a separate SPV for implementation of the Mega Food Park project.
 - Subject to fulfillment of the conditions of the Scheme Guidelines, the funds are released to the SPVs.
- Under the Scheme, the Government of India provides financial assistance up to Rs. 50.00 Crore per Mega Food Park project.
- Presently, 18 Mega Food Park Projects are under implementation in various states and 19 Mega Food Parks have already become functional in the States.
 - 6 of them are in the Northeastern region. 2 MFPs in Northeastern Region are operational at Assam and Mizoram.

KAKRAPAR ATOMIC PLANT

◎ **CONTEXT:**

Recently, the Kakrapar atomic power plant-3 achieved criticality.

◎ **ABOUT:**

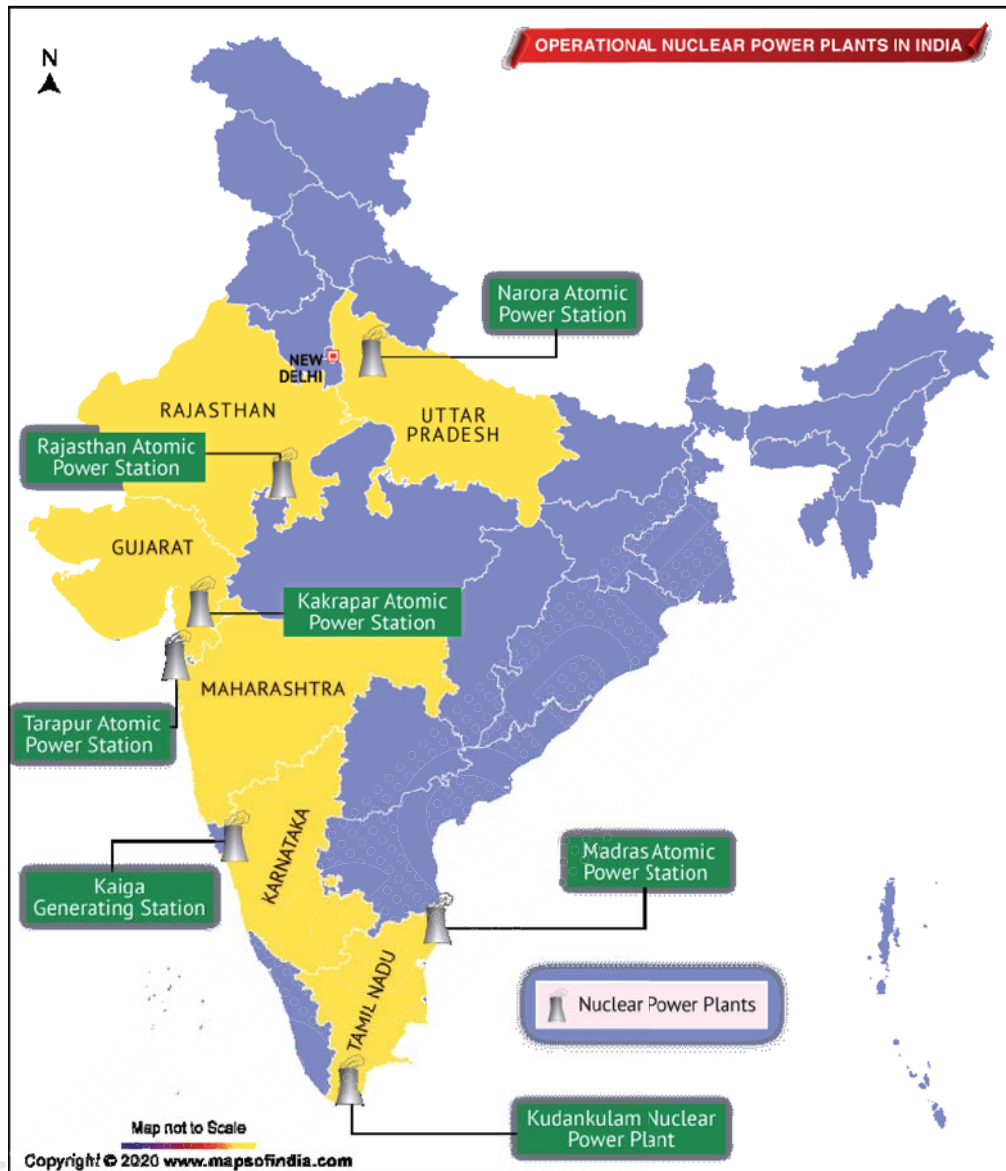
- Almost 25 years after the last unit was commissioned at Kakrapar Atomic Power Plant, the Nuclear Power Corporation of India Limited (NPCIL) has achieved criticality of the third unit of 700 MWe at the plant in Tapi district.
- NPCIL has seven more reactors under construction which include the fourth unit of 700 MWe at Kakrapar. These reactors are expected to be completed and achieve criticality next year onwards.

◎ **BACKGROUND:**

- The first two units at Kakrapar of 220 MWe (Megawatt electric) each were based on Canadian technology. The third unit is fully indigenous.
- The first Pressurised Heavy Water Reactor (PHWR) of 220 MWe was commissioned on May 6, 1993, while the second unit of similar capacity was commissioned on September 1, 1995.
- The third reactor at Kakrapar is the front runner in a series of 16 indigenous 700 MWe PHWRs which are under various stages of development.
- The work on the third and fourth units of 700 MWe each began in 2011. The fuel loading for the reactor core was completed by mid-March 2020.

Kakrapar-3 (KAPP-3)

- KAPP-3 is India's first 700 MWe unit, and the biggest indigenously developed variant of the Pressurised Heavy Water Reactor.
- The indigenous 700 MWe PHWRs have advanced safety features like steel-lined inner containment, passive decay heat removal system, containment spray system, hydrogen management system, among others.
- Until now, the biggest reactor size of the indigenous design was the 540 MWe PHWR, two of which have been deployed in Tarapur, Maharashtra.



Reactors & Criticality

- Reactors are the heart of an atomic power plant, where a **controlled nuclear fission reaction** takes place that produces heat, which is used to generate steam that then spins a turbine to create electricity.
 - Fission is a process in which the nucleus of an atom splits into two or smaller nuclei, and usually some by-product particles.
 - When the nucleus splits, the kinetic energy of the fission fragments is transferred to other atoms in the fuel as heat energy, which is eventually used to produce steam to drive the turbines.
 - For every fission event, if at least one of the emitted neutrons on average causes another fission, a self-sustaining chain reaction will take place.
 - A nuclear reactor achieves criticality when each fission event releases a sufficient number of neutrons to sustain an ongoing series of reactions.
 - Criticality is the first step towards power production.
- © **SIGNIFICANCE:**
- The PHWRs, which use natural uranium as fuel and heavy water as moderator, is the mainstay of India's nuclear reactor fleet.

- The operationalisation of India's first 700MWe reactor marks a significant scale-up in technology, both in terms of optimisation of its PHWR design.
- It addresses the issue of excess thermal margins, and an improvement in the economies of scale, without significant changes to the design of the 540 MWe reactor.
 - **'Thermal margin'** refers to the extent to which the operating temperature of the reactor is below its maximum operating temperature.
- The 700MWe reactors will be the backbone of a new fleet of 12 reactors to which the government accorded administrative approval and financial sanction in 2017, and which are to be set up in fleet mode.
- As India works to ramp up its existing **nuclear power capacity of 6,780 MWe to 22,480 MWe by 2031**, the 700MWe capacity would constitute the biggest component of the expansion plan.
 - Currently, nuclear power capacity constitutes less than 2% of the total installed capacity of 3,68,690 MW (end-January 2020).
- As the civilian nuclear sector gears up for the next frontier, building a 900 MWe Pressurised Water Reactor (PWR) of indigenous design, the experience of executing the larger 700MWe reactor design will come in handy, especially about the improved capability of making large pressure vessels.
 - This is alongside isotope enrichment plants being developed to supply part of the required enriched uranium fuel to power these new generation reactors over the next decade or so.

MANODARPAN

◎ **CONTEXT:**

Ministry of Human Resource Development launched 'Manodarpan' initiative for mental health and counselling of students.

◎ **ABOUT:**

- It aims to provide psychosocial support and counseling to students for their mental health and well-being.
- Under this initiative, the minister launched a toll-free national helpline number - 8448440632, a website of Manodarpan and a handbook on 21st-century life skills for the students of the school, college, and universities.
- Manodarpan comprises of the following components:
 - Advisory guidelines
 - Web page
 - National level database and directory of counselors
 - National Toll-free helpline number
 - Interactive online chat option
- Manodarpan is an initiative under the Atmanirbhar Bharat Abhiyan.
- **Need for such an initiative:**
 - COVID -19 pandemic is not only a serious medical concern but also has brought mixed emotions and psycho-social stress for all.
 - With a specific focus on children and adolescents, there are emerging mental health concerns that are often reported in such situations.
 - Children and adolescents may be more vulnerable and may experience a heightened level of stress, anxiety, and fearfulness, along with a range of other emotional and behavioural issues.

- Manodarpan is going to help children as well as their parents in facing a tense situation in life including COVID 19 pandemic induced lockdown and its effects on academics.

NON – PERSONAL DATA

◎ CONTEXT:

Recently, a government committee has suggested that non-personal data generated in the country be allowed to be harnessed by various domestic companies and entities.

◎ ABOUT:

- The 9 member committee headed by the **Infosys co-founder Kris Gopalakrishnan** released the draft report and has kept time till August 13 for the public to send suggestions.
- The committee has also suggested setting up a new authority that would be empowered to monitor the use and mining of such non-personal data.
- The government committee, in its report, has classified non-personal data depending on the source of the data and whether it is anonymised in a way that no individual can be re-identified from the data set, into three categories, namely public non-personal data, community non-personal data, and private non-personal data.

Definition of Non-Personal Data

- In its most basic form, it is any set of data that does not contain personally identifiable information. This in essence means that no individual or living person can be identified by looking at such data.

Public, Community, and Private Non-Personal Data

- **All the data collected by the government and its agencies** such as census, data collected by municipal corporations on the total tax receipts in a particular period, or any information collected during execution of all publicly funded works have been kept under the **umbrella of public non-personal data**.
- Any data identifiers about a set of people who have either the same geographic location, religion, job, or other common social interests will form the **community's non-personal data**.
 - For example, the metadata collected by ride-hailing apps, telecom companies, electricity distribution companies, etc.
- **Private non-personal data** can be defined as those which are produced by individuals which can be derived from the application of proprietary software or knowledge.
 - For example, while order details collected by a food delivery service will have the name, age, gender, and other contact information of an individual, it will become non-personal data if the identifiers such as name and contact information are taken out.

How sensitive non-personal data is?

- Unlike personal data, which contains explicit information about a person's name, age, gender, sexual orientation, biometrics, and other genetic details, non-personal data is more likely to be in an anonymised form.
- However, certain categories such as **data related to national security or strategic interests** even if provided in anonymised form can be dangerous. Similarly, even if the data is about the health of a community or a group of communities, though it may be in anonymised form it can be still dangerous.

Global standards on non-personal data

- In May 2019, the European Union came out with a regulatory framework for the free flow of non-personal data in the European Union, in which it suggested that member states of the union would cooperate when it came to data sharing.

- The regulation, however, had not defined what non-personal data constituted of and had simply said all data which is not personal would be under the non-personal data category.
- In several other countries across the world, there are no nationwide data protection laws, whether for personal or non-personal data.

Analysis of India's non-personal data draft

- The draft is a pioneer in identifying the power, role, and usage of anonymised data, there are certain aspects such as community non-personal data, where the draft could have been clearer.
- According to some experts, the final draft must clearly define the roles for all participants, such as the data principal, the data custodian, and data trustees.
- Regulation must be clear, and concise to provide certainty to its market participants, and must demarcate the roles and responsibilities of participants in the regulatory framework. To address these issues more public consultation and more deliberation are required.

MADHUBANI PAINTINGS

◎ CONTEXT:

Noted Madhubani artist Remant Kumar Mishra known as Bihar's "mask man", despatched masks with hand-painted Madhubani motifs all over India during the ongoing CoVID-19 pandemic.

◎ ABOUT:

Madhubani Paintings

- It is practiced in the **Mithila region of Bihar and Nepal**; it is called Mithila or Madhubani art.
- These are characterized by **complex geometrical patterns**.



- The themes of these paintings are festivals, religious rituals, etc.
- Some of the initial references to the Madhubani painting can be found in **the Hindu epic Ramayana**.
- The colors used in Madhubani paintings are usually derived from plants and other natural sources.
 - These **colors are often bright** and pigments like lampblack and ochre are used to create black and brown respectively.

- Instead of contemporary brushes, objects like twigs, matchsticks, and even fingers are used to create the paintings.
- Madhubani paintings are categorized into **five different styles, such as Tantrik, Kohbar, Bharni, Godna, Katchni.**
- The paintings are largely made using powdered rice, colors derived from turmeric, pollen, pigments, indigo, various flowers, sandalwood, and leaves of various plants and trees, etc. Also, many natural sources are combined and are processed to obtain the desired colors.
- If the artists come across empty spaces even after completing the painting, they usually fill up those empty spaces with the motifs of flowers, animals, birds, and geometrical patterns. A double line is usually drawn as the border.
- **Eminent Artists:** Sita Devi, Jagdamba Devi, Ganga Devi, Mahasundari Devi, Karpuri Devi, Mahalaxmi and Dulari.

BLACKROCK ANDROID MALWARE

◎ **CONTEXT:** Security firm ThreatFabric has alerted about a new malware, called **BlackRock**, which can steal information like passwords and credit card information from about 377 smartphone applications, including Amazon, Facebook, Gmail, and Tinder.

- ◎ **ABOUT:**
- BlackRock is not exactly a new malware. It is based on the leaked source code of the Xeres malware, itself derived from a malware called LokiBot.
 - The only big difference between BlackRock and other Android banking trojans is that it can target more apps than previous malware.
 - According to the ThreatFabric, the malware can be used to send and steal SMS messages, hide notifications, keylogging, AV detection, and much more.
 - The new malware is so powerful that it makes antivirus applications useless.
 - BlackRock isn't limited to online banking apps and targets general-purpose apps across various categories of Books & Reference, Business, Communication, Dating, Entertainment, Lifestyle, Music & Audio, News & Magazine, Tools, and Video Players & Editors.

How does it work?

- Once installed on a phone, it monitors the targeted app. When the user enters the login and/or credit card details, the malware sends the information to a server.
- BlackRock uses the phone's Accessibility feature and then uses an Android DPC (device policy controller) to provide access to other permissions.
- When the malware is first launched on the device, it hides its icon from the app drawer, making it invisible to the end-user. It then asks for accessibility service privileges.
- Once this privilege is granted, BlackRock grants itself additional permissions required to fully function without having to interact any further with the victim. At this point, the bot is ready to receive commands from the command-and-control server and execute overlay attacks.

Protection from BlackRock Android malware

- Download apps only from the Google Play Stores, use strong passwords, beware of spam and phishing emails, use an antivirus app if possible, and check app permissions.

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CURRENT AFFAIRS

MAZHAPOLIMA: ENSURING WATER SECURITY THROUGH PARTICIPATORY WELL-RECHARGE IN KERALA.

Mazhapolima is a participatory climate change adaptation initiative which was launched by the Government of Kerala in Thrissur district. The project aims to alleviate the problem of water scarcity by harvesting rainwater from rooftops and feeding it into open dug wells, which traditionally form the water security mechanisms of the state.

◎ OBJECTIVES

It was initiated to enhance the water table and increase water availability in open dug wells throughout the year; improve the quality of water in open dug wells; reduce public spending on water tankers, and reduce saline intrusion into open dug wells along the coastal line.

Key Stakeholders

Households and institutions facing water scarcity, the District Collectorate, the District Rainwater Harvesting Mission, the Revenue Department, Arghyam, Panchayati Raj Institutions (PRIs), the Department of Education, the State Planning Board, the Department of Rural Development, the State Bank of Travancore, the Thrissur Pooram City Chamber, and the Malayalam Manorama Group.

Implementation strategy

- Mazhapolima was conceptualised by a group of like-minded conservationists and water activists in and around Thrissur district under the leadership of the then-District Collector.
- The draft plan was submitted to the Government of Kerala, where after the Department of Disaster Management, under the Ministry of Revenue, sanctioned Rs. 1 crore for the programme.
- After a demonstration of the technique's effectiveness, Mazhapolima's implementation began with the constitution of the Mazhapolima Monitoring and Coordination Unit (MMCU) as a special purpose agency attached to the District Collectorate.
- In the implementation of the initiative, the process begins with the Gram Panchayat (GP) submitting a list of possible beneficiaries.
 - ▶ Although priority is given to below poverty line (BPL) households and other deserving categories, the households above poverty line (APL) are not excluded.
- The next step involves an agreement between the GP

and a nominee of the District Collector. Thereafter, work is undertaken by the Beneficiary Committee at the GP level or by workers directly arranged by the GP.

- The MMCU helps in making a technical team available for the installation of open well-recharge units.
 - ▶ A baseline survey is then conducted and a completion certificate obtained from the respective GP member.
- The initiative is being implemented in phases and improving over time.
- Mazhapolima has demonstrated the ability to respond to a common need with a simple but effective solution that covers four key components – innovation, awareness generation, grievance redressal, and training.

Key Challenges

- There were several challenges in the implementation of the programme, especially from the beneficiaries.
 - ▶ Low attendance at meetings.
 - ▶ Beneficiaries have not taken care of the flush systems nor installed filter systems.
 - ▶ Another challenge has been about generating agreements among family members on directing rainwater to open dug wells.
 - ▶ There has also been resistance to a perceived change in the taste of water after recharge.
 - ▶ Beneficiaries have also been complacent about water supply after abundant rain, coupled with low hydrogeological literacy among the new generation.
 - ▶ Some other challenges related to the fact that the initiative was being implemented through PRIs, who preferred short-term solutions like tanker supply during summer.
 - ▶ Panchayat members often sought equal shares for their respective wards, making it difficult to adopt a community cluster approach. This inadvertently reduced the scope for the participatory approach,



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making the recharge units more like demonstration models in some target areas.

Replicability & Sustainability

- As a water management model, Mazhapolima is suited to both the east areas and the west coast of Kerala. The technique used is simple to adopt and the financial implications much lower than providing tanker supply to drought-hit areas each year.
- The conditions necessary for replication of the programme are good rainfall and a culture of open wells, as household-level wells have the additional advantage of working as micro-aquifers. Except in

certain hydro-geological typologies, most of the coastal locations in India fulfill these conditions. Hence, Mazhapolima represents a low-cost, effective climate change adaptation strategy.

CONCLUSION

Mazhapolima has importance in light of the drastic and dramatic global climate change scenario. One of the sustainable ways to deal with the threat is to embrace adaptation mechanisms that reverse or at least limit the adverse impact of climate change. Such initiatives are the need of the hour, even if the pace of change and adoption is slow initially.



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