CURRENT AFFAIRS WEEKING



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GS-I

Analysing a Gender perspective in sustainable sanitation

- India and Sri Lanka re-injects pragmatism into bilateral relations
- GS-3 Saksham Campaign
- GS-3 Assessing India's
 Cyber Security
 Infrastructure
- GS-4 COVID-19 Passport raises 'ethics questions'

PRELIMS

- GEOGRAPHY China gives green light for first downstream dams on Brahmaputra
 - HISTORY & 91st Anniversary of the historic 'Dandi March' led by Mahatma Gandhi
 - United Bengal Plan
- GOVERNANCE National Social Assistance Programme (NSAP)
 - **R** First QUAD Summit
 - POLITY HC to examine ECI decision on allotting permanent symbols
 - **ECONOMICS** Food waste Index Report
 - India's biggest floating solar plant to be commissioned
 - Sub-Mission on Agroforestry (SMAF) Scheme
- SCIENCE & ISRO to handle projects of TECHNOLOGY National 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 (MARCH, 2021)

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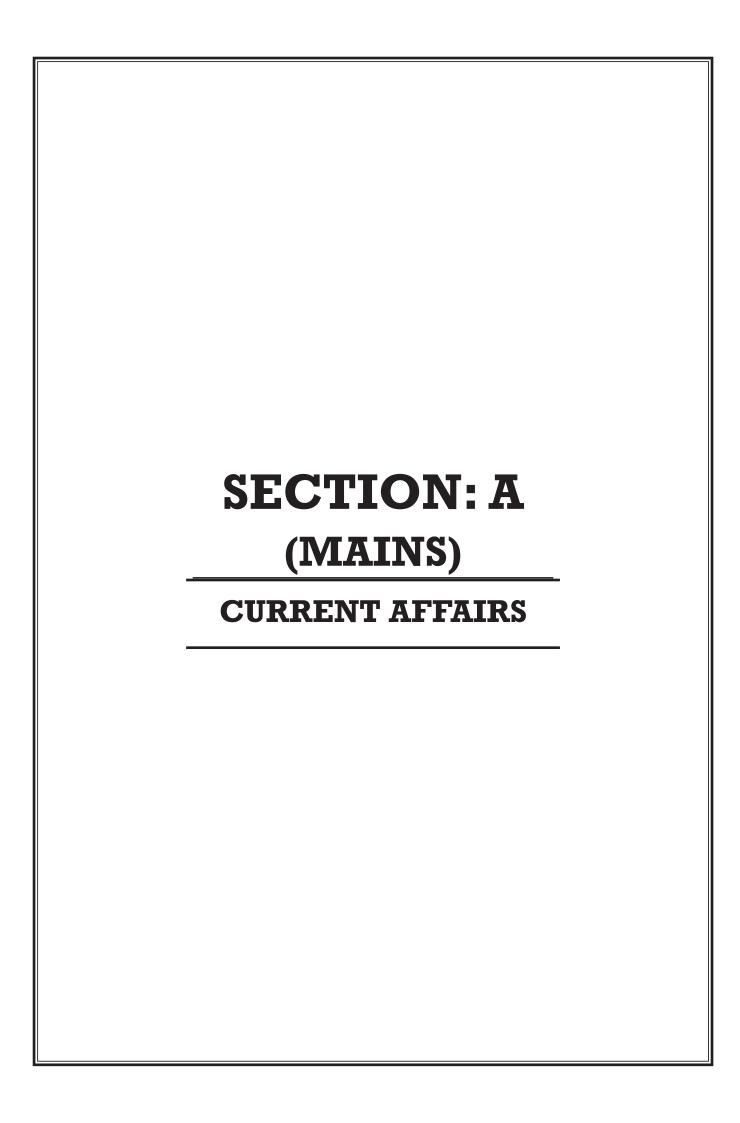
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ANALYSING A GENDER PERSPECTIVE IN SUSTAINABLE SANITATION

CONTEXT

With reference to sustainable development goals (SDGs) by 2030, India needs to achieve access to adequate and equitable sanitation and hygiene for all and end open defecation, paying special attention to the needs of women and girls and those in vulnerable situations.

BACKGROUND

- While the topic of women and water, sanitation and hygiene is a widely accepted concern, it continues to be an issue in developing countries with serious consequences.
- Women, despite having a high demand for safe toilet facilities, continue to practise unsafe sanitation.
- In this context, the Government of India launched the Swachh Bharat Mission (SBM), which envisages the implementation of the infrastructure of water & sanitation and makes India Open defecation free (ODF).
- Though the SBM is a people's movement for improving health and hygiene, still there are instances that girls and women face a situation where access to sanitation facilities is not easy and even it is unsafe.
- As gender is an important notion in sanitation and hygiene, there is no doubt that women can help to drive change and bring about lasting change as the Jan Andolan of swachhta, health, and sanitation gains momentum.
- The situation makes it important to have measures for strengthening and effectively implementing a sanitation policy and other programmes to address gender power relations.

Women, Sanitation and Swachh Barat Abhiyan

- **Gender sensitive objective:** The Swachh Bharat Grameen Phase I guidelines (2017) state that "requirements and sensitivities related to gender, including dignity and safety issues, are to be taken into account at all stages of sanitation programmes from planning to postimplementation."
- Guidelines w.r.t gender dimension: The department of Drinking Water and Sanitation released the guidelines, recognising the gender dimensions of sanitation in India. It emphasised not only the need for women's participation in planning and implementation of sanitation interventions but also "their leadership in SBM-G committees and institutions".
- **Guidelines to States:** The states were accordingly expected to ensure adequate representation of women in the village water and sanitation committees (VWSCs), leading to optimal gender outcomes. The SBM-Grameen guidelines (Phase I) specifically recommended that 50 per cent of the members of VWSCs should be women.
- Women for behavioural change: The government has also very effectively used over 8 lakh swachhagrahis, mainly women, who for small honorariums work to push through behavioural change at the community level.



ANALYSIS

How the role of women is changing?

- Over the last two decades, the gender landscape in urban and especially in rural India has slowly changed, bringing women to the cusp of a powerful social and political revolution.
- The harbinger of this change is a unique policy experiment in village-level governance that has transformed the weakest of the weak and poorest of the poor: women in rural India.



The Constitution (73rd Amendment) Act

In 1993, India amended the Constitution to accommodate Panchayati Raj—which effectively means village self-governance—and legislate previously non-binding rules. It introduced a three-tiered structure at the village, block, and district levels.

- A third of seats on every village council were reserved for women.
- The vision was that these women-headed councils would bring greater transparency and governance.
- However, the situation has not changed much for all and especially in terms of sanitation.

Role of Women in achieving goals of Swachh **Bharat**

- In Jharkhand, trained women masons built over 15 lakh toilets in one year, and helped the state achieve its open defecation free (rural) target.
- The India Sanitation Coalition has helped link micro-finance with self-help groups run by women for sanitation needs. Increasingly, interventions with these groups which drive livelihoods can be designed to produce income and well-being impact with water, sanitation, and hygiene (WASH) programmes.
- The government has also very effectively used over 8 lakh swachhagrahis, mainly women, who for small honorariums work to push through behavioural change at the community level.
- Case Study: Uttara Thakur, a differentlyabled panchayat head from Chhattisgarh, was determined to improve sanitation services in her village. She went door-to-door to motivate people to use toilets. Her contagious spirit mobilised the whole village to join hands and become opendefecation free.
- Main Kuch Bhi Kar Sakti Hoon, a Doordarshan TV series promoted by PFI, used entertainmenteducation around safe and sustained sanitation practices to improve people's awareness and promote shifts in social and gender norms around the use and maintenance of toilets. This reached 200 million viewers, nearly 45 per cent of whom reportedly took some action or promised to.

What is Swachh Bharat Abhiyan?

• Swachh Bharat Abhiyan is one of the most popular and significant missions in the History of India. This campaign was introduced by the Prime Minister, Narendra Modi, and was launched on 2nd October 2014 to honour Mahatma Gandhi's vision of a clean country.

Swachh Bharat Mission (Urban) 2.0

- The government in the Union Budget 2021 allocated Rs 1, 41,678 crores for the Swachh Bharat Mission (U) 2.0. The components of SBM-Urban 2.0 are:
 - New component Wastewater treatment, including faecal sludge management in all ULBs with less than 1 lakh population
 - Sustainable sanitation (construction of toilets)
 - Solid Waste Management
 - Information, Education and Communication,
 - Capacity building

What are the Challenges Involved in Gender and Sanitation?

As per the census 2011, more than fifty percent of India's population defecated in the open, and recent data showed that about 60% of rural households and 89% of urban households have access to toilets.

- Weak Participation and Proxy for men: In practice, the promoters of swachhta rarely encourage women to participate in water and sanitation committees, which does not guarantee their participation.
 - ➤ Further, the age, position in the family, and societal and cultural barriers for females are some of the factors that determine the participation of women in sanitation decisionmaking.
- Gender-Based Sanitation Insecurity: There is a disproportionate burden faced by women especially shortage of or the non-availability of sanitation facilities that can be also called "Genderbased sanitation insecurity."
 - The desire for privacy during bathing and defecation is different in the case of girls and women than men.
 - ➤ Thus, the non-availability of proper sanitation facilities creates a helpless situation for females and leads to the risk of faucal-orally transmitted diseases, urogenital tract infections, urinary incontinence, and chronic constipation.
- Risks Involved With Open Defecation: Women face threats to their life and feel unsafe while seeking a toilet facility or while going out for open defecation.
 - This leads to the consumption of less food and water by the women to minimize the need to exit the home to use toilets.



➤ The risk involved with feeling unsafe while searching a place to go often to the toilet after dark or early in the morning; and dropping out of school at the onset of menstruation due to a lack of safe and private disposal facilities.

Taboo: Menstrual hygiene education is a taboo in India. Women find it difficult to openly ask for sanitary products from a male family member. Women, especially in rural areas, are confined to their homes and depend on male or elderly female household members for procuring sanitary products.

What measures are required?

- Ensuring Behaviour Change: Information, education, and communication, which aims at behaviour change of the masses, is key to the success of the Swachhta mission 2.0.
 - Swachh Bharat Mission 2.0 speaks of sustained behavioural change while embarking on the newer agendas of sustainable solid waste management and safe disposal of wastewater and reuse.
 - A proactive SBM messaging that reflects major transformations, attempting to popularise and portray stories of women groups will create the much-needed social ripple that would inspire women to take complete charge.
- Linking Sanitation & Hygiene With Livelihood:
 The India Sanitation Coalition has helped link micro-finance with self-help groups run by women for sanitation needs.
 - Such interventions with these groups should be promoted to drive livelihoods and produce income and well-being impact with the water, sanitation, and hygiene (WASH) programs.
- Monitoring Gender Outcomes: A national monitoring and evaluation system to track and measure gender outcomes in SBM is necessary.

- ➤ Several researchers in this space have commented that gender analysis frameworks have a long history in development practice.
- ➤ We can learn from these frameworks to support design, implementation, and measurement that can bridge the gender equality gap in sanitation.
- ➤ There is a need for effective communications and training programs to build the capacity of stakeholders on gender targeting, both on the supply and demand sides of interventions.

Is right to water and sanitation is fundamental?

- World Health Organization (WHO): The right to water and sanitation is recognized as fundamental to attaining all other human rights.
- **UNGA on Sanitation:** The UN General Assembly adopted two resolutions, one in 2010 and the other in 2015, which recognised human rights to sanitation and clean water. The 2015 resolution especially pressed on sanitation and called upon states to ensure women's proportionate participation in decision making related to sanitation management and practices.

• CONCLUSION

The sustainable development goals require India "by 2030, to achieve access to adequate and equitable sanitation and hygiene for all and end open defecation, paying special attention to the needs of women and girls and those in vulnerable situations." Ensuring that women and girls have an equal role in the design, management and monitoring of the WASH ecosystem can be a strategic gendermainstreaming practice that empowers women and girls while improving WASH outcomes.





INDIA AND SRI LANKA RE-INJECTS PRAGMATISM INTO BILATERAL RELATIONS

CONTEXT

With the participation of the Indian Air Force Chief and 23 aircraft in the three-day event in Colombo to mark the 70th anniversary of the Sri Lanka Air Force (SLAF), India sought to reaffirm its strong defence cooperation with Sri Lanka.

BACKGROUND

- In recent months there have been escalating tensions between India and Sri Lanka, with New Delhi on the receiving end of a series of diplomatic blows from its smaller neighbour.
- Despite Indian efforts at appeasing the island state's government, the straggling relationship across the Palk Strait has suffered new setbacks-
 - The Eastern Container Terminal at Colombo's port saw almost 70% of its traffic come from India and was a key outpost for New Delhi's export economy.
 - After years of painstaking negotiations, a \$700 million deal, a tri-nation MoC (memorandum of cooperation), developing the Colombo Port's Eastern Container Terminal (ECT), was settled between Sri Lanka, Japan and India.
 - But Colombo withdrew its consent from the deal
- Sri Lanka has since announced that its Cabinet has cleared a proposal from the Adani Group the Indian partner identified by New Delhi — and a Japanese firm — to be proposed by Tokyo — for trilateral development of the Western Container Terminal (WCT) in the same port-front.
- The recent participation participation of the Indian Air Force Chief and 23 aircraft is a positive development.

ANALYSIS

What is 'Priority One' assurance?

- By reciprocating Sri Lanka's past declaration of following an 'India First' foreign policy, India has now said that the southern neighbour is the nation's 'Priority One' defence partner.
- India also reiterated the assurance of fullest cooperation in the field of defence and security.
- The statement underlined that the participation of the Indian Air Force and Indian Navy aircraft and personnel in the 70th Anniversary celebration of the SLAF is indicative of the growing cooperation, camaraderie and friendship between the Armed

Forces of the two nations.

- ➤ A total of 23 Indian Air force (IAF) and Indian Navy aircraft will also partake in the event.
 - The Indian aircraft participated in these events include Advanced Light Helicopter (ALH) Sarang which will perform an aerobatic display, Surya Kiran planes, Tejas fighter jet, Tejas trainer jet, and Dornier maritime patrol aircraft.

Why Sri Lanka assumes significance for

- o Strategic geopolitical relevance: Sri Lanka's strategic location makes it a crucial partner for all countries in the region.
- Sri Lanka has a list of highly strategic ports located among busiest sea lanes of communication.
 - The Lloyds list state Sri Lanka's Colombo Port is the 25th busiest container port in the

Colombo Port is the largest and busiest port in Sri Lanka. Located on the southwestern shores on the **Kelani River**, it serves as an important terminal in Asia due to its strategic location in the Indian

- The island nation is also strategically important to India in terms of its Indian Ocean strategy and in terms of networking of partners for her aims of establishing an Indian Ocean Rim Community.
- For the Indian Navy, it is important as the switching of naval fleets from the Bay of Bengal to the Arabian Sea and vice versa the fleets have to take a round of Sri Lanka.

The Beijing factor

Sri Lanka's growing Chinese influence has swayed the Indo-Lanka relationship significantly.

• Infrastructure projects: In the last 15 years, China has invested heavily in Sri Lanka's infrastructure projects, triggering panic in New Delhi. China has its footprints everywhere. Hambantota port in the deep-south to Colombo International Financial City (CIFC) is being built on the land reclaimed from Indian Ocean.

- Tagging the island state on BRI: Geostrategic significance of Sri Lanka is determined by its ports, the entry points to the island. China strategically carved its path years ago, tagging Sri Lanka along with its larger strategic mental map, the Belt and Road Initiative (BRI).
- Building modern ports: China is building state of the art gigantic modern ports all along the Indian Ocean to the south of it, in Gwadar, in Pakistan, in Chittagong, in Bangladesh, in Kyauk Phru, in Burma, in Hambantota, in Sri Lanka. Post 2015, Sri Lanka still relies heavily on China for Port city project and for continuation of Chinese funded infrastructure projects in Sri Lanka.

What India needs to do?

 India needs to pay attention towards improving relations with regional power centers and leverage its economic and soft power strengths to optimise diplomatic output even as its global grandstanding is on.

- Additional involvement of the corporate and business sector, education and information technology are some potential areas of greater interaction.
- India's foreign policy goals need to be motivated by realism rather than ideals such as democracy promotion. At last, India must remain a zone of peace in the Indian Ocean.

Conclusion

To conclude, India and Sri Lanka have injected pragmatism into bilateral relations, which began disappearing after China's entry through the **Hambantota port deal** a decade ago. Now, there is greater understanding of India's strategic concerns and what Sri Lanka seems to perceive as 'commercial transaction'. This could mean that after a brief hiccup, if it came to that, the two nations would be able to take forward bilateral relations, independent of the Indian decision on the UNHRC vote, and Sri Lanka's greater reliance on China for the purpose.





SAKSHAM CAMPAIGN

CONTEXT

Recently, the Ministry of Petroleum and Natural Gas launched the month-long fuel conservation awareness campaign Saksham.

BACKGROUND

- Fuel conservation has become highly important in the present scenario.
- On the one hand, the petrol prices are for the first time, touching Rs. 100.
- On the other hand, India's oil imports are expected to rise to 90% by 2030 and 92% by 2040, as per the India Energy Outlook report, 2021.

India Energy Outlook report, 2021

- India at present is the fourth-largest global energy consumer behind China, the United States and the European Union.
- India accounts for nearly one-quarter of global energy demand growth from 2019-40 — the largest for any country. Its share in the growth in renewable energy is the second-largest in the world, after China.
- India will overtake the European Union as the world's third-largest energy consumer by 2030.
- Energy use (in India) has doubled since 2000, with 80 per cent of demand still being met by coal, oil and solid biomass.

• ANALYSIS

What is Saksham Campaign?

- It is a month-long awareness campaign launched by the Petroleum Conservation Research Association (PCRA).
- The Saksham campaign aims to create awareness about fossil fuels by highlighting the adverse health and environmental impacts of fossil fuels.
- It mentioned the advantages of switching to cleaner fuels and bring in behavioural change to use fossil fuel more intelligently.
- The campaign included various Pan-India activities such as cyclothon, farmer workshops, seminars etc.
- The awareness campaign was started as an Oil Conservation Week in 1991.
- Later in 1997, the program was converted into an Oil and Gas Conservation Fortnight.
- From 2017 onwards, it was renamed as "Saksham

- (Sanrakshan Kshamta Mahotsav)" and getting conducted for a month.
- This year the campaign launched on 16th January 2021.

About Petroleum Conservation Research Association (PCRA)

- Petroleum Conservation Research Association (PCRA) is a registered society set up under the aegis of Ministry of Petroleum & Natural Gas, Government of India.
- As a non-profit organization, PCRA is a national government agency engaged in promoting energy efficiency in various sectors of economy.
- Key-objectives:
 - ► PCRA aims at making oil conservation a national movement.
 - ➤ As part of its mandate, PCRA is entrusted with the task of creating awareness amongst the masses about the importance, methods and benefits of conserving petroleum products & emission reduction.
 - ➤ It sponsors R&D activities for the development of fuel-efficient equipment /devices and organizes multi-media campaigns for creating mass awareness for the conservation of petroleum products.
 - ➤ To take the message to the people, PCRA uses all possible and effective media for mass communication.
 - ➤ To give impetus to the oil conservation movement, PCRA utilizes various platforms like the **World environment day, World energy day**, various festivals etc.
 - ➤ It functions as a **Think Tank** to the Government of India for proposing policies and strategies on petroleum conservation and environment protection aimed at reducing excessive dependence on oil.
 - ➤ For the benefit of various target groups of petroleum products, PCRA has developed literature containing simple ready to implement conservation tips and techniques.



Special low cost green leaflets have also been developed to educate the masses on the ill effects of pollution caused due to incomplete combustion and its impact on health.

Level of fuel usage in India

- According to the Ministry of Petroleum and Natural Gas, India imported 270 Million Metric Ton of crude oil worth \$120 billion in 2019-20 alone.
- Major consuming sectors: The sectors such as transport, industry, household and agriculture are four major sectors that consume the bulk of petroleum.
 - ➤ **Transport sector:** The transport sector is the largest consumer (50 per cent) of petroleum products in India. They mainly consume petrol and high-speed diesel. Road transport accounts for about 37 per cent of the total oil consumption.

High-Speed Diesel (HSD) and Light Diesel Oil (LDO)

- HSD is normally used in high-speed diesel engines (runs above 750rpm). Such as commercial vehicles, stationary diesel engines, locomotives, and pumps etc.
- LDO is used in slow-speed diesel engines (below 750 pm). Generally, it is used in Lift irrigation pump sets, Diesel Generator (DG) sets etc.
 - ► **Industries:** They consume about 16-20 per cent of the total oil products.
 - ➤ **Agriculture sector:** High-speed diesel and light diesel oil are the main petroleum products consumed in the agriculture sector. Apart from that, Naphtha is primarily used to produce fertilizers.
 - ➤ **Household:** Kerosene and LPG are two major oil products used in the domestic sector. It is generally consumed for cooking and heating in urban and semi-urban areas.

Important facts on fuel

- Any substance which upon combustion produces a usable amount of energy is known as **fuel**. For example: fossil fuels, biogas, nuclear energy, etc. Fossil fuels include coal, natural gas and oil.
 - ➤ **Coal** is a combustible rock that is black in color. It runs in veins through the rock beneath the surface of the Earth.

- ➤ **Natural gas** is a form of methane. It gets trapped in pockets where plant decomposition has occurred.
- ➤ **Crude oil**, a liquid composed mainly of carbon and hydrogen, is often black, but exists in a variety of colors and viscosities depending on its chemical composition.

What is the need to conserve fuel?

- Environment conservation: Fuel conservation promotes environmental health. Lower fuel usage will reduce nitrogen oxides, carbon dioxide, Sulphur dioxide, ozone, and other hydrocarbon emissions.
- Reducing effects of climate change: Further fuel conservation will reduce the total energy demand and production, reduce greenhouse gases, resulting in fewer oil spills, and fewer mining activities. Overall, fuel conservation will reduce the effects of climate change.
- Budget friendly: Fuel conservation will save money and reduce the oil import bills of India. Fuel conservation will reduce the overall net crude oil imports and save India's Forex reserves.

India Energy Outlook 2021 has mentioned India as the world's second-biggest net oil importer after China. As per this report, India is currently importing about 76% of its crude oil needs.

- Increase in energy sustainability: As fossil fuels like oil are non-renewable and depleting around the globe, its conservation will expand their availability for a longer period of time. Along with the research on alternative energy sources, energy sustainability can be ensured.
- Easy escape from political vulnerabilities: Fuel conservation will reduce India's dependence on politically vulnerable Middle Eastern region.

Middle Eastern region at present holds 48.3% of global oil reserves. But the region is vulnerable to various conflicts such as the Sunni-Shia conflict, Israel and Arab nations conflict, etc.

 Better replacement: Fuel conservation will help in reducing peak oil demand. Apart from that, shifting towards clean energy alternatives can further reverse the end of the oil age theory.

End of the oil age theory

- The end of the oil age is the theory first formulated in 2005.
- According to it, oil age will end due to the fall in production of oil and its non-replacement along with skyrocketing prices.



 But the theory was reversed recently after the US Shale gas revolution and the emergence of Electric vehicles after Paris Climate Summit.

Important Government initiatives to conserve fuel

The government introduced various policies aimed towards fuel conservation. Such as fuel efficiency norms for Heavy Commercial Vehicles and Light and Medium Commercial Vehicles.

- LPG Panchayats: This scheme aimed at encouraging rural communities to turn to clean fuels instead of fossil fuels.
- Ethanol Blended Petrol (EBP) Programme: The government in 2003 introduced the EBP program.
 The programme aims to promote the use of alternative and environment-friendly fuels and reduce import dependency.
 - ► India has set a target of 10 percent ethanol blending in petrol by 2022.
- In the transport sector various other initiatives for fuel conservation such as
 - ➤ introducing Bharat Stage (BS) standards
 - fixing the maximum speed of cars
 - ▶ improved road conditions
- India is a signatory to the Paris Agreement under the United Nations Framework Convention on Climate Change.
- As part of its Nationally Determined Contribution (NDC), India has three quantitative climate change goals –
 - ➤ reduction in the emissions intensity of gross domestic product (GDP) by 33 to 35% by 2030 from the 2005 level
 - ➤ achieving about 40% cumulative electric power installed capacity from non-fossil fuel based energy resources by 2030
 - creating an additional carbon sink of 2.5 to 3 billion tonnes of carbon dioxide equivalent through additional forest and tree cover by 2030

Suggestive Measures

- Strict norms for transportation sector: There is need to introduce strict norms for the operation of transport vehicles at optimum speed, implement projects improving road conditions and remove traffic bottlenecks, especially in urban areas.
 - ➤ According to a report, these measures alone can save about 30-35 per cent of the fuel.
- Better energy management: To reduce the

demand for the industrial sector, the government has to encourage better energy management.

- ➤ For example, government initiatives in the iron and steel industry, petrochemicals industries have reduced 21 and 32 percent of their fuel demands.
- Infusing efficient technology in agriculture sector: In the agriculture sector government has to promote better farm machinery, efficient foot valves for lift irrigation, use of agro-residues, and other non-commercial sources of energy. This will reduce the fuel demand in agriculture.
- Improved public transport system: The government needs to build a reliable, wellconnected, sophisticated public transport system. Such a system must have the potential to cater to the needs of all sections of the society.
- Shifting to better alternatives: To get a complete solution, apart from fuel conservation the country also need to shift to clean and green alternative energy sources. For example,
 - Promoting Solar machines like solar cookers, solar panel, solar water heaters, wherever it is feasible.
 - Promoting biogas as domestic fuel instead of kerosene and LPG.
 - Promoting the usage of Electric Vehicles and Ethanol as alternative fuels. At the same time, exploring the possibility of Hydrogen as a potential fuel.
- Furthermore, the government can take numerous initiatives to reduce fuel demand but to see a real change people in India must be educated to reduce fuel consumption voluntarily, such as:
 - Promoting use of bicycles for shorter distances
 - Switching off engines in signals
 - ► Following the sedate driving style and traffic rules etc.
 - Promoting carpooling etc

CONCLUSION

The recent India Energy Outlook report mentions "India's energy future depends on buildings and factories that India is going to build and the vehicles and appliances India is going to buy". So it is high time for India to act on fuel conservation and Green energy initiatives to make India's energy requirements sustainable.





ASSESSING INDIA'S CYBER SECURITY INFRASTRUCTURE

CONTEXT

According to recent reports (New York Times and Recorded Future), Chinese state-sponsored actors may have used malware to target India's power grid system and seaports. The reports claimed that "Red Echo", a group sponsored by the Chinese state, was behind the 12 October 2020 grid failure in Mumbai.

BACKGROUND

- Cyberspace and physical space are increasingly becoming intertwined due to increased software control.
- The major security threat lies to the critical infrastructure of the nation wherein the attackers can gain control of vital systems such as nuclear power plants, financial, transportation or health systems that can lead to dire consequences.
- With the definitive Make in India initiatives announced by the Indian government and estimates reporting that over 5 billion devices would connect to the internet in the coming months and years, India needs to lay down solid cybersecurity plans and policies.
- The increasing cyber-attacks in the year 2020 have made organizations rethink their security measures, especially in terms of enterprise data security.
- As organizations expand work-from-home and remote working solutions for their employees, the number of vulnerable endpoints increases.

Some recent incidents of Cyber attacks:

- In the latest in a series of surveillance and hacking attempts, a Chinese hacker group known as Stone Panda had identified gaps and vulnerabilities in the IT infrastructure and supply chain software of Bharat Biotech and the Serum Institute of India, India's vaccine manufacturers.
- Last year in October, the sudden blackout that occurred in Mumbai was also suspected to be a cyber attack originating in China.
 - These kinds of cyber attacks are not uncommon in present times.
 - Russia was a pioneer in using this technique when it turned the power off twice in Ukraine several years ago.

Last month (Feb 28, 2021), Massachusettsbased cybersecurity company 'Recorded Future' published a report saying it had observed a "steep rise" in the use of resources like malware by a Chinese group called **Red Echo** to target "a large swathe" of India's power sector.

In this regard, a more comprehensive and objective assessment of India's cyber ecosystem is in urgent need.

ANALYSIS

The concept of cyber attack

- The concept of a cyber attack or a computer network attack is rooted in this description.
- It can be described as a "deliberate exploitation of computer systems, technology-dependent enterprises and networks."
- Cyber attacks use "malicious code to alter computer code, logic or data, resulting in disruptive consequences that can compromise data and lead to cybercrimes, such as information and identity
- Cyberattacks give a country another option less devastating than a nuclear attack, but capable of giving the country a strategic and psychological edge. China's recent cyber aggression can be analyzed through this lens.
- Possible reasons for increased cyber attacks from
 - ➤ One major factor is the border clash between the two countries in June 2020
 - Chinese may be using cyber attacks as a means of deterrence against India
 - Until recent years, China's focus had been on information theft
 - But Beijing has been increasingly active in placing code into infrastructure systems, knowing that when it is discovered, the fear of an attack can be as powerful a tool as an attack itself.
 - When vaccine companies are targeted, the motive could be competition



Different types of Cyberattacks

Botnet: Botnet is a network of devices that have been infected with malicious software, such as a virus

- Malware: Malware is a term used to describe malicious software, including spyware, ransomware, viruses, and worms. Malware breaches a network through a vulnerability, typically when a user clicks a dangerous link or email attachment that then installs risky software.
- **Phishing:** Phishing is the practice of sending fraudulent communications that appear to come from a reputable source, usually through email.
- **Ransomeware:** Among the types of cyber warfare attacks, ransomware stands as one of the riskiest ones as highly critical information can be at stake. In a ransomware attack, the victim is forced to delete all necessary information from their system if they fail to pay a ransom within the timeline given by cybercriminals.
- **Trojan Horses:** A Trojan is a malware software program that aims at hacking digital devices by appearing as useful software to the victims.
 - ▶ It is one of the most dangerous types of Cyberattacks. It helps attackers get financial details alongside all other confidential information of the victims.
- Worm: A worm is a type of malware that doesn't attack a host file and replicates itself as it travels across computers and networks and leaves copies of itself in the memory of each computer.

What are the major dimensions of cyber threats?

There are three major dimensions of cyber threats:

- Cyber Wars: A cyber war is a "No contact" war, where the idea is to attack the critical information (CI)architecture of another state. Eq. Israel used STUXNET malware to destroy the Iranian nuclear programme.
- Cyber Crimes: Involves use of cyberspace for criminal activity including identity thefts and financial frauds. Eq. Adhaar card data and other biometric information has been hacked
- Cyber Terrorism: It is the use of cyberspace by a terrorist group for propaganda and recruitment. Eg. fake videos to incite and radicalize the vulnerable target

Thus cyber security becomes important for the internal and well as external security of India.

Understanding the current state of cyber security in India:

- o National Security Council: The National **Security Council**, chaired by National Security Adviser (NSA), plays a key role in shaping India's Cyber Policy Ecosystem.
 - ➤ The NSA also chairs the **National Information Board**, which is the apex body for cross-ministry coordination on cybersecurity policymaking.
- Cyber Security Policy: The National Cyber Security Policy, 2013 was developed to build secure and resilient cyberspace for India's citizens and businesses.
- IT Act, 2000: Currently, the Information Act, 2000 is the primary law for dealing with cybercrime and digital commerce in the country.
- NTRO: The National Technical Research Organisation (NTRO) is the main agency designed to protect national critical infrastructure and to handle all the cybersecurity incidents in critical sectors of the country.
- NCIIPC: The National Critical Information Infrastructure Protection Centre (NCIIPC) was established under NTRO in 2014 to facilitate the Protection of Critical Infrastructure.
- **CERT-In:** The Indian **Computer Emergency** Response Team (CERT-In) is responsible for incident responses including analysis, forecasts and alerts on cybersecurity issues and breaches.
- **Indian Cyber Crime Coordination Centre (I4C):** The Central Government has rolled out a scheme for the establishment of the Indian Cyber Crime Coordination Centre (I4C) to handle issues related to cybercrime in the country in a comprehensive and coordinated manner.

Recent measures

- Cyber Crime Volunteers: The Indian Cyber Crime Coordination Centre (I4C), under the Ministry of Home Affairs (MHA), recently launched the Cyber Crime Volunteers Program with the aim to allow citizens to register themselves as "Cyber Crime Volunteers'.
 - ▶ While the country had earlier used **vertical** surveillance (usually state observes the citizens), this new initiative is a case of Lateral **surveillance** (it is the case of social surveillance or peer-to-peer surveillance).
- Cybercrime reporting portal: The Government has launched the online cybercrime reporting www.cybercrime.gov.in portal, enable complainants to report complaints pertaining to Child Pornography/Child Sexual Abuse Material, rape/gang rape imageries, or sexually explicit content.



Cyber Swachhta Kendra: Cyber Swachhta Kendra (Botnet Cleaning and Malware Analysis Centre) has been launched for providing detection of malicious programs and free tools to remove such programs.

What are the gaps in India's Cyber Security?

- The Institutional Framework has been plagued with concerns around
 - lack of effective coordination
 - overlapping responsibilities
 - lack of clear institutional boundaries and accountability
- Outdated strategies: India's National Cyber Security Strategy, which has been drafted by the NSC — a much-needed update to the National Cyber Security Policy 2013 — is yet to be released.
- Inappropriate approach to deal with cyber conflict: India is also yet to clearly articulate a doctrine that holistically captures its approach to cyber conflict, either for conducting offensive cyber operations, or the extent and scope of countermeasures against cyber attacks.
- Absence of credible cyber deterrence strategy: The absence of a credible cyber deterrence strategy means that states and non-state actors alike remain incentivized to undertake low-scale cyber operations for a variety of purposes — espionage, cyber crime, and even the disruption of critical information infrastructure.
 - **International Telecommunication Union** (a specialized agency of UN), ranked India HIGH in commitment to cyber security in its 'Global Cyber Security Index -2018'

What measures are required?

- Effective strategy and transparency: Clearer strategy and greater transparency are the need of the hour to improve India's cybersecurity posture.
- Better coordination: Improved coordination is needed between the government and the private sector, as well as within the government itself and at the national and state levels.
- Focus on creating secure cyber ecosystem: A clear public posture on cyber defence and warfare boosts citizen confidence, helps build trust among allies, and signals intent to potential adversaries, thus enabling a more stable and secure cyber ecosystem.
- **Learning from expertise:** A key opportunity herein is a precise articulation of how international law applies to cyberspace, which could mold the global governance debate to further India's strategic interests and capabilities.
 - ➤ In particular, this should include positioning on not just non-binding norms but also legal obligations on 'red lines' with respect to cyberspace-targets that should be considered illegitimate due to their significance for human life, such as health-care systems, electricity grids, water supply, and financial systems.

• CONCLUSION

As India is moving towards more and more digitalization in all spheres, cyberspace has become a serious concern of National Security. Thus, a comprehensive policy with a skilled workforce is needed to ensure that India's people and its infrastructure are safe, so the country can move towards development peacefully.





COVID-19 PASSPORT RAISES 'ETHICS QUESTIONS'

CONTEXT

Governments around the globe, are debating the idea of requiring 'COVID-19 vaccine passports', raising ethical concerns about those who would get left behind.

BACKGROUND

- Prior to the Covid-19 pandemic, the world had become a much smaller place, spurred by the Internet and connectivity, as well as travel.
- However, things have changed, at least temporarily, since March of 2020.
- Though internet helped to keep the whole world connected, international travel has been decimated.
- For the purposes of facilitating international travel for tourism and business, governments in different countries are developing plans for a digital vaccine passport.
- However, COVID-19 passport raises various ethical issues and could exacerbate global inequities.
- Dividing the world between the vaccinated and unvaccinated raises daunting political and ethical questions.

ANALYSIS

What is a COVID-19 vaccine passport?

- A vaccine passport would be a form of documentation (likely digital) that would allow people to prove to border officials or another gatekeeper that they have been vaccinated against COVID-19.
- The idea behind a vaccine passport is that it would allow a person to resume activities that are now restricted because of the coronavirus pandemic.

WHO's stand on vaccine passport

- World Health Organisation is of the opinion that 'vaccine passports' for COVID-19 should not be used for international travel because of numerous concerns, including ethical considerations that coronavirus vaccines are not easily available globally.
- WHO is of the belief that vaccination is just not available enough around the world and is not available certainly on an equitable basis.

Who is using vaccine passports?

Israel became the first country to introduce a certification system. The country's system is

- designed to allow an individual with the 'passport' access to facilities and services such as hotels, restaurants, gyms, and workplaces.
- ▶ The primary proponents of this system are the tourism and hospitality sectors who've faced the brunt of the pandemic.
- **Thailand**, a popular tourism destination, moved a step closer to issuing vaccine certificates.
- China also introduced the first "virus passports" in a bid to boost international travel.
- United States and the European Union are also considering similar programmes.

Other important initiatives

- IATA Travel Pass: So far, the International Air Transport Association — the global trade body representing airlines — is developing an app called IATA Travel Pass that will provide airlines and other aviation industry stakeholders with a common platform to check for the proof of vaccination and its validity.
- Commons **Project:** Another initiative, Commons Project is trying out an app called CommonPass, which contains a passenger's vaccination record.

What are India's plans?

- While India does not yet have plans for an Israellike robust vaccine passport system, many are viewing the vaccine certificates as a document that can be used to ease travel restrictions.
- Several states have mandated **COVID-19 negative** certificates based on RT-PCR tests for those travelling within India.
- Those receiving the **first vaccine jabs in India** are currently receiving a provisional certificate and the final certificate is given only after the second
- Various states are considering the vaccination certificates as a driver of the tourism industry that has suffered major losses in the recent past.

What are the pros and cons of COVID-19 vaccine passport?





Pros

- ➤ **Regain normalcy:** A COVID-19 vaccine passport allows holders to regain normalcy in their lives while feeling confident they would not infect anyone.
- ➤ **Encourage to get vaccinated:** It can also encourage hesitant people to get the shot.

Cons

- ➤ Range of issues: They could result in discrimination and fraud, encourage risky behavior when the coronavirus is still raging, and be a privacy minefield.
- Widened social gaps: Granting special rights for the vaccinated, while tightening restrictions on the unvaccinated, risks widening alreadydangerous social gaps.
- ➤ **Ethical concerns:** These passports can create an onslaught of ethical issues for both those who receive the vaccine and those who do not.

What ethical issues could be raised?

Discrimination for minority communities:
 It could leave to discrimination for minority

- communities that are more skeptical about getting the vaccine. Younger adults and children are low priority for vaccines and could receive repercussions for not getting the vaccine.
- Violation of privacy: Allowing businesses to access people's health information is a potential violation of privacy.
- False sense of safety: It can create a false sense of safety that those vaccinated are no longer at risk for getting or spreading the infection. It's still unclear whether vaccinated people can contract an asymptomatic case of COVID-19 and spread the virus.
- Further complicating the process: Mutations of the virus could complicate passports, as multiple vaccines may be introduced.

CONCLUSION

Immunity passports promise a way to go back to a more normal social and economic life. But the strategy raises the prospect of further dividing the world along the lines of wealth and vaccine access, experts warn, creating ethical and logistical issues that have alarmed decision-makers around the world.





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CHINA GIVES GREEN LIGHT FOR FIRST DOWNSTREAM DAMS ON BRAHMAPUTRA

© CONTEXT:

China has adopted 14th Five Year Plan which mentions a hydropower project on Brahmaputra River near Arunachal Pradesh

• ABOUT:

What does the Five Year Plan signifies?

- The plan was drafted against tensions between India-China and China-USA during COVID-19 pandemic
- The 2021-2025 plan is anticipated to have aggressive goals on sustainable energy in order to reach China's announced goals of carbon neutrality by no later than 2060
- Hence a hydroelectric project is envisaged on Brahmaputra River, which will offer clean energy to China

About the proposed dam and its location

- The plan was first revealed last year by Power Construction Corp of China or POWERCHINA
- Run of the river hydropower project in the downstream of the Yarlung Tsangpo River (the Tibetan name for Brahmaputra)
- The 50km section at the Great Bend alone offered the potential of 70 million kWh which equals more than three Three Gorges power stations

Brahmaputra River System

- Origin: Jima Yangzong Glacier in Tibet near Mansarovar Lake
- Course of the River:
 - It flows parallel to Himalayan Range in Tibet and after the Great Bend enters India at Arunachal Pradesh
 - It is fed by many tributaries and continues to flow towards Assam and then Bangladesh
 - In Bangladesh, River Ganga meets Brahmaputra River(Jamuna) which is then called Padma River and it drains in to Bay of Bengal at Sunderbans

• Tributaries:

- Left Bank: Lhasa River, Nyang River, Parlung Zangbo, Lohit River, Dhansiri River, Kolong River
- Right Bank: Kameng River, Manas River, Raidak River, Jaldhaka River, Teesta River, Subansiri River, Siang

National Waterways 2

 It is a section of the Brahmaputra River having a length of 891 km between the Bangladesh border near **Dhubri** and **Sadiya** in Assam.

Ecological Significance

- The basin provides a unique habitat for exquisite variety of flora and fauna, including many endangered species like one-horned rhinoceros, pygmy hog, hispid hare, Asiatic elephant, clouded leopard, marble cat, golden cat, binturong, hoolock gibbon and the Wood Duck.
- The flood plains of the Brahmaputra are dotted with a large number of wetlands or beels, which provide unique habitats for a variety of flora and fauna. The beels also function as floodwater retention systems.

Wildlife Hotspot on bank of Brahmaputra

- Dibru Saikowa National Park
- Kaziranga National Park
- Orang National Park

• Majuli Island

• It is the world's largest river island located in Brahmaputra River

• It is also called the cultural capital of Assam.

The Great Bend

- Brahmaputra flows in a deep canyon or gorge between two Himalayan peaks 'Namcha Barwa' and 'Gyala Peri' in Tibet. Then the river turns to south and rushes towards Arunachal Pradesh.
- This region, where the river takes such a big turn of almost 270 degrees, is known as 'The Great Bend' of the Brahmaputra.

91st ANNIVERSARY OF THE HISTORIC 'DANDI MARCH' LED BY MAHATMA GANDHI

© CONTEXT:

Prime Minister Narendra Modi flagged off a symbolic 386-kilometer 'Dandi march', following the same route to commemorate the historic salt march.

• ABOUT: The Dandi March

- Dandi March was a 24-day march from March 12 to April 5, 1930.
- Objective: It was a tax resistance campaign against the British salt monopoly.
 - It marked the inauguration of the civil disobedience movement.
- Principle: The march was based on Gandhi's principle of non-violence or Satyagraha.
- An organized movement: The Dandi march was the most significant organized movement against the British Raj after the non-cooperation movement of the early 1920s.
- **Significance**: The March is considered truly a turning point in the Indian Independence movement.
- **End of movement**: In 1931, Mahatma Gandhi was released and met Lord Irwin who wanted to put an end to the civil disobedience movement.
 - As a result, the **Gandhi-Irwin pact** was signed, the civil disobedience movement
 was halted and Indians were allowed to make salt for domestic use.
 - Arrested Indians were also released.
 - The Second Round Table Conference was attended by Mahatma Gandhi in London.

Why did Gandhi call for the Dandi March?

- **To break the monopoly**: The **1882 Salt Act** gave the British a monopoly in the manufacture and sale of salt. Even though salt was freely available on the coasts of India, Indians were forced to buy it from the colonizers.
- Symbol of unity: Gandhi saw salt as a symbol of unifying power as it was the most



common element among all the individuals.

Other Salt Satyagraha

- Chattopadhyay March: In Mumbai, 500 people led by Kamaladevi Chattopadhyay marched to the Wadala Salt Depot on 16th April 1930. They collected natural salt and sold it to people.
- **Vedaranyam March:** The march led by Rajaji was called the "Vedaranyam March" and was part of the Civil Disobedience Movement. The march was started at Trichy (Trichinopoly then) and ended at Vedaranyam, a coastal town in Tanjore district.
- **Dharasana Satyagraha**: Dharasana Satyagraha was a protest against the British salt tax in colonial India in May, 1930.

UNITED BENGAL PLAN

O CONTEXT:

In a recent election rally in Muchipara, West Bengal, a politician spoke about the contributions of Shyama Prasad Mookerjee in making of West Bengal after independence in 1947.

ABOUT:

Who was Shyama Prasad Mookerjee?

- Shyama Prasad Mukherjee, born on July 6, 1901, was the independent India's first Minister of Industry and Supply and founder of Bharatiya Jana Sangh.
 - The Jan Sangh was founded on some basic principles promotion of Uniform Civil Code, ban on cow slaughter and ending the special status of Jammu and Kashmir.
 - In the 1952 general elections, Jan Sangh won three seats and Mookerjee was elected as an MP from south Calcutta. Jan Sangh was renamed as the Bharatiya Janata Party in 1980.
- In 1934, Mookerjee earned the rare distinction of becoming the youngest vicechancellor of Calcutta University at the age of 33.
- Mookerjee was President of the Akhil Bharatiya Hindu Mahasabha between 1943 and 1946
- He was one of the strongest voices to have opposed the **united Bengal plan**, as per which Bengal would be a separate nation, independent from both India and Pakistan.

What was United Bengal Plan?

- British Bengal roughly consisted of modern-day Bangladesh and the Indian state of West Bengal.
- In 1905, Bengal was partitioned to achieve some political returns but people's growing movement under the auspices of Congress led to the reunion in 1911.
- In 1947, along with India and Pakistan, there almost emerged a third sovereign country: United Bengal.
- The division of the province was demanded on communal lines.
- However, the plan was foiled following concerted and unanimous efforts of the Hindus of Bengal.
 - Hindu opinion was firmly against a sovereign and united Bengal.

Shyama Prasad Mookerjee and his plan-

Though Mookerjee was a staunch advocate of the integrity of the country, but when the
division of India became imminent, he campaigned for the division of Bengal.



 In February 1947, the Hindu Mahasabha under Mookerjee put forward the demand for dividing Bengal on religious grounds.

- He demanded West Bengal for Hindu Bengalis.
- He had opposed a bid to form a united, but independent Bengal in 1947 that was pushed by Sarat Bose, brother of Netaji Subhas Chandra Bose, and Huseyn Shaheed Suhrawardy, former Pakistani prime minister.

Leaders who were in favour and against the Plan

- **Against:** Mahatma Gandhi, Jawaharlal Nehru and Vallabhbhai Patel were implacably opposed to a United Bengal.
- **In favour:** Suhrawardy along with few other top Bengal politicians like Sarat Bose and K.S. Roy came up with an alternative for the Partition.

NATIONAL SOCIAL ASSISTANCE PROGRAMME (NSAP)

© CONTEXT:

Parliamentary standing committee on rural development has slammed government laxity in raising amounts for providing pensions to senior citizens, widows and disabled people of BPL households under National Social Assistance Programme.

• ABOUT: Key-highlights of the Report

- The Committee observed the meagre amount of assistance ranging from ₹200 to ₹500 per month under the different components of this Scheme.
- The Committee slammed the government's laxity in raising the amount, pointing out that recommendations to increase the sums have been made for the last two years.
- The Committee recommended the DoRD to look into this issue with utmost sincerity and hasten their processes for bringing an increase in the assistance amount under NSAP.
- The panel also pulled up the DoRD for delays and disparities in the payment of wages and unemployment allowances under the flagship MGNREGA scheme.
- Inordinate delay in the release of (the 40% component of) funds for skilled/semi-skilled workers under MGNREGA.
- The callous approach of the State Governments in the proper implementation of the provision of unemployment allowance under MGNREGA.
- The provision is not implemented in letter and spirit at the grass root level.

About NSAP (National Social Assistant Programme)

- National Social Assistance Programme is a Centrally sponsored scheme of the Government of India that provides financial benefit to elderly people, widow and person with disability in the form of social pension.
- NSAP was launched on 15 August 1995.
- The National Social Assistance Programme (NSAP) is a welfare programme being administered by the Ministry of Rural Development.



- This programme is being implemented in rural areas as well as urban areas.
- NSAP represents a significant step towards the fulfilment of the Directive Principles
 of State Policy enshrined in the Constitution of India which enjoin upon the State to
 undertake within its means a number of welfare measures.
- Article 41 of the Constitution of India directs the State to provide public assistance
 to its citizens in case of unemployment, old age, sickness and disablement and
 in other cases of undeserved want within the limit of its economic capacity and
 development

FIRST QUAD SUMMIT

© CONTEXT:

In a signal development, the first QUAD (Quadrilateral Cooperation) summit held virtually between India, US, Japan and Australia.

• ABOUT: What is Quad?

- The Quad, or Quadrilateral Security Dialogue, comprises the United States, India, Japan and Australia.
- It is an informal group of the four nations that hold semi-regular meetings, joint military drills, and discussions about regional, economic and development assistance.
- The framework was established in 2007, but it took on a new level of importance in 2019 with a discussion among foreign ministers amid China's increasing influence.

Why Quad assumes significance for four nations?

- **United States:** For the United States under Joe Biden, Quad assumes greater significance as it looks to strengthen its commitment in Asia and counter China after the tumultuous Trump era.
- Japan, India and Australia: For Japan, India and Australia, China has emerged as a security threat in several positions, making the Quad meeting a key opportunity to strengthen strategic ties.

Chinese Maritime Aggression in the Region

- String of Pearls: to encircle India and limit its maritime expansion
- Belt and Road Initiative: viewed as model of Neo Imperialism
 - > Debt Trap Diplomacy (Hambantota Port, Pakistan's CPEC)
 - Weaponization of Supply Chain : deployment of naval vessels at Chinesecontrolled ports

Key-highlights of the virtual Summit

- The Spirit of the Quad: A joint statement, titled 'The Spirit of the Quad' was presented after the summit
 - The cooperation decided to pool their financial resources, manufacturing capabilities and logistics to ramp up manufacturing and distribution of COVID-19 vaccines in the Indo-Pacific region
- Expanding vaccine diplomacy: The leaders finalised a landmark initiative under which
 huge investments will be made in India to create additional production capacities to roll
 out a billion coronavirus vaccine doses by 2022 for exports to the Indo-Pacific region.
- **Free Indo-Pacific:** The Quad leaders vowed to strive for an **Indo-Pacific region** that is free, open, inclusive, healthy, anchored by democratic values, and unconstrained by coercion, sending an apparent message to China.



 Working groups: Three working groups in areas of vaccine, climate crisis and critical and emerging technology would also be created.

Importance of Indo Pacific Region (IPR)

- It is the geographical connotation of the area which covers the Eastern Coast of Africa through Indian Ocean and Western Coast of United States of America.
- Countries of Indo-Pacific region: Australia, Bangladesh, Bhutan, Brunei, Cambodia, Fiji, India, Indonesia, Japan, Laos, Malaysia, Maldives, Myanmar, Nepal, New Zealand, Papua New Guinea, Philippines Singapore, Sri Lanka, Taiwan, Thailand, Timor Leste, United States, Vietnam.

Significance

- Minerals: IPR houses deep sea minerals on deep sea floor consisting of polymetallic nodules (PMN), crusts, and accumulations of metallic sulfides from deep vents. mining the PMN—which contain quantities of manganese, iron, copper, nickel, titanium, and cohalt
- **Hydrocarbons:** Deposits of petroleum and natural gas under the seafloor are the most valuable and sought-after fuels.
- **Fisheries:** The main fisheries in IPR are Bombay duck, catfish, tuna and tuna-like species, ponyfishes, croakers, mullets, sardines, anchovies, mackerel, sharks, prawns, shrimps and lobsters.

India's initiatives in Indo-Pacific

- **SAGAR:** To promote its strategic interests in the Indian Ocean, India launched the SAGAR vision in 2015.
- Indian Pacific Ocean Initiative: On 4 November 2019, Prime Minister Narendra Modi launched the IPOI at the East Asia Summit in Bangkok.
 - ➤ The main objective of the IPOI is to ensure the safety, security, and stability of the maritime domain, and to do that, seven pillars have been laid out.
 - ➤ IPOI is being built on the pillars of India's 'Act East' policy (focusing on the Eastern Indian Ocean and the Western Pacific) and 'Act West' (focusing on the Western Indian Ocean).
- India's theatre command: The Andaman and Nicobar Command (ANC), India's first and only tri-service theater command of the Indian Armed Forces is located in IPR which aids immensely in protecting India's strategic interest in the region.

HC TO EXAMINE ECI DECISION ON ALLOTTING PERMANENT SYMBOLS

© CONTEXT:

The Madras High Court decided to examine whether it was fair on the part of the Election Commission of India (ECI) to allot permanent election symbols to recognised political parties

• ABOUT: Allotment of permanent election symbols

- ECI allots permanent symbols to political parties according to Election Symbols (Reservation and Allotment) Order, 1968
- These parties should be recognized as either national or state party

How these rules are challenged?



- Allotting a permanent symbol to one set of political parties and denying it to another set of parties amounted to defying the principle of ensuring a level-playing field during the polls, hence this is in contravention to Article 14 (Right to Equality) of constitution
- The practice of allotting election symbols began after Independence because the
 majority of Indian voters were illiterates but now the literacy rate in the country has
 increased to 84% from 12% in 1947, and hence there is no need for allotment of symbols
 to select parties.
- The party in power promotes such permanent symbols using public funds and government machinery. This is nothing but exerting undue influence and would amount to corrupt practice under Section 123 of the Representation of the People Act.

Election Symbols (Reservation and Allotment) Order, 1968

- Classifies political party as recognized or unrecognized political party
- A recognized party shall be either a national party or state party
- Conditions for recognition as State party
 - Secured 6% of valid votes and secured 2 seats in SLA election
 - Secured 6% of valid votes and secured 1 seat in Lok Sabha election
 - Secured 3% of total seats or 3 seats in SLA (whichever is more)
 - Secured 1/25 seats of total number of constituencies in the state
 - Secured 8% of valid votes in the State, in Lok Sabha(LS) or SLA election
- · Conditions for recognition as National party
 - In 4 or more states secured 6% votes in LS/SLA election and secured 4 seats in LS
 - Secured 2% seats in LS in minimum 3 states
 - If the party is recognized as state party in 4 states
- A recognized party will choose a symbol of his choice, reserve it and it shall not be available, as free symbol in the country or that state (in case of state party), for others
- In case of merger/demerger ECI will decide on the symbol to be allotted to which of the faction
- If the political party fails to adhere to 'Model Code of Conduct for Guidance of Political Parties and Candidates' as issued by the Commission, ECI can withdraw their recognition as state or national party

About ECI

- Article 324: Superintendence, direction and control of elections to Parliament, Legislature of every State and offices of President and Vice-President to be vested in an Election Commission.
- ECI has a Chief Election Commissioner (CEC) and such other Election Commissioner (EC) as determined by President.
- Constitution does not prescribe the eligibility to the post of CEC or EC.
 - CEC is removed in same manner as Judge of Supreme Court
 - EC is removed by President in consultation with CEC.

FOOD WASTE INDEX REPORT

• CONTEXT:

According to the Food Waste Index Report 2021, 17% of all food available at consumer levels was wasted in 2019.



• ABOUT: The Report

 The report is released by United Nation Environment Programme (UNEP) and partner organisation WRAP.

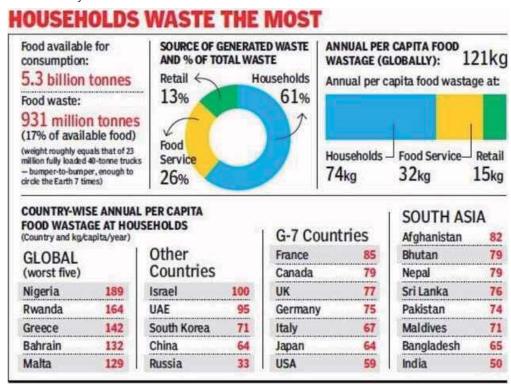
- The index was prepared by using data from 54 countries and then extrapolated to the remaining countries.
- United Nations Environment Programme (UNEP) revealed that food waste was a global problem and not that of just the developed world.

Key-highlights of the Report

- Around 931 million tonnes of food waste was generated in 2019, sixty-one per cent
 of which came from households, 26 per cent from food service and 13 per cent from
 retail.
- 17 per cent of total global food production may be wasted.
- On an average, 74 kilograms of food was wasted per capita at the household level.
- Some countries like Austria and South Africa produce very low amounts of waste at 39 kg per capita per year and 40 kg per capita per year respectively.
- Nigeria and Rwanda are producing waste at 189 kg per capita per year and 164 kg per capita per year respectively.

India's Ranking:

- In India, the household food waste estimate is 50 kg per capita per year, or 68,760,163 tonnes a year.
- The household food waste estimate in the US is 59 kg per capita per year, or 19,359,951 tonnes a year, while for China these estimates are 64 kg per capita per year or 91,646,213 tonnes a year.



Impact of food waste

Food waste has substantial environmental, social and economic impacts.





- **GHG Emissions:** 8-10 per cent of global greenhouse gas emissions are associated with food that is not consumed.
- **Economic loss:** Food loss and waste causes about \$940 billion per year in economic losses. Reductions can save money for farmers, companies, and households.

INDIA'S BIGGEST FLOATING SOLAR PLANT TO BE COMMISSIONED

© CONTEXT:

The country's biggest floating solar power plant to date being developed at Ramagundam in Peddapalli district of Telangana is set to be commissioned in next few months.

• ABOUT: About the Solar plant

- Renewable energy plant: It is the biggest solar power plant developed in India to date.
- **Capacity:** It is a 100-megawatt plant which is the biggest in terms of generation capacity.
- **Developing entity:** It would be one of the renewable (solar) energy plants being developed by NTPC with an installed capacity of 447MW in the Southern Region.
- **FGDs construction:** Flu gas de-sulphurization (FGD) capacity will be installed on the developing solar plants to abide by the environmental protection norms.
- Significance:
 - No need for land acquisition
 - Low-cost energy production
 - Promotion of renewable energy resources

Some other to be commissioned power plants

- The renewable energy plants that are likely to be commissioned in the next three months are:
 - 25MW floating solar plant at Simhadri thermal power plant near Visakhapatnam
 - 92MW floating solar plant at Kayamkulam in Kerala
 - 100MW plant at Ramagundam.

Flue-gas desulfurization (FGD)

- It is a set of technologies used to remove sulfur dioxide (SO₂) from exhaust flue gases of fossil-fuel power plants.
- It also removes emissions of other sulfur oxide emitting processes such as waste incineration.
- flue-gas desulfurization (FGD) may remove 90 percent or more of the SO₂ in the flue gases

Common methods used for FGD

- Wet scrubbing using a slurry of alkaline sorbent, usually limestone or lime, or seawater to scrub gases
- Spray-dry scrubbing using similar sorbent slurries





- Wet sulfuric acid process recovering sulfur in the form of commercial quality sulfuric acid
- **SNOX Flue gas desulfurization** removes sulfur dioxide, nitrogen oxides, and particulates from flue gases
- Dry sorbent injection systems that introduce powdered hydrated lime (or other sorbent material) into exhaust ducts to eliminate SO2 and SO3 from process emissions

SUB-MISSION ON AGROFORESTRY (SMAF) SCHEME

© CONTEXT:

The Central Silk Board (CSB) under the Ministry of Textiles and the Ministry of Agriculture and Farmers Welfare signed a Memorandum of Understanding (MoU) on a convergence model for implementation of Agro-forestry in the silk sector under the ongoing Sub-Mission on Agroforestry (SMAF) Scheme.

• ABOUT:

What is Sub-Mission on Agroforestry (SMAF) Scheme?

- Sub-Mission on Agroforestry (SMAF) aims to encourage farmers to plant multi-purpose
 trees together with the agriculture crops for climate resilience and additional source
 of income to the farmers, as well as enhanced feedstock to inter alia wood based and
 herbal industry.
- The Department of Agriculture, Cooperation and Farmers Welfare (DAC & FW) is implementing the Sub-Mission on Agroforestry (SMAF) since 2016-17 as part of the recommendation of the National Agroforestry Policy 2014.
- At present, the scheme is being implemented in 20 States and 2 UTs.

Important facts about silk production

China, Korea, Japan, India, Iran, Turkey, Turkmenistan, Uzbekistan, Vietnam, and Brazil are the largest Silk Producing Countries in the world.

- India is the **2nd largest producer** of Silk. The first silk textile mill was established by "East India Company" at **Howrah** in 1832.
- India is the only country in the world which produces all the four major varieties of silk - Mulberry, Eri, Tassar, and Muga.
- **Silk producing states:** The Bihar, West Bengal, Madhya Pradesh, Assam, Andhra Pradesh, Jammu & Kashmir, Tamil Nadu, and Orissa are other states prominent in silk manufacturing.
- Production: India's raw silk production increased 35 per cent in the last six years.
- **Employment:** Six years ago, 70 lakh people in India were employed in this sector whereas 90 lakh people are currently employed in the segment.

ISRO TO HANDLE PROJECTS OF NATIONAL SECURITY

© CONTEXT:

The India Space Research Organisation (ISRO) would be in charge of projects linked to "national security and advanced technology" — like the forthcoming Chandrayaan 2 missions and the Gaganyaan mission.





However, the bulk of commercial activities would increasingly be handled by the newly formed New Space India Limited.

- Chandrayaan-2 mission brought together an Orbiter, Lander and Rover with the goal of exploring South Pole of the Moon.
- This mission aimed at studying not just one area of the Moon but all the areas combining the exosphere, the surface as well as the sub-surface of the moon in a single mission.
 - However the landing was not successful, thus only its obiter is functional.
- Gaganyaan will be first human space mission by ISRO.

NSIL

- New Space India Limited (NSIL) is a wholly-owned Government of India Company, under the administrative control of Department of Space (DOS).
- It is commercial arm of ISRO
- Mandates of NSIL are as follows:
 - Owning satellites for Earth Observation and Communication applications and providing space based services
 - Building satellites and launching them as per demand
 - Providing Launch Services for satellite belonging to customer
 - Building launch vehicles through Indian Industry and Launch as per satellite customer requirement
 - Space based Services related to Earth Observation and Communication satellites on commercial basis
 - Satellite building through Indian Industry
 - Technology Transfer to Indian Industry
 - Marketing spin-off technologies and products/ services emanating out of ISRO's activities.

IN-SPACe

- Indian National Space Promotion and Authorization Center (IN-SPACe) is the nodal agency for allowing space activities and usage of DOS owned facilities by Non Government Private Entities (NGPEs).
- It will act as a link between the ISRO and private sector companies, assessing how best to utilise India's space resources and increase space-based activities.
- It will evaluate demands of private sector companies—including educational institutes—and will find ways to attune their demands, in consultation with ISRO
- It will work out a suitable mechanism for promotion & hand holding, sharing of technology and expertise to encourage participation of NGPEs in space activities



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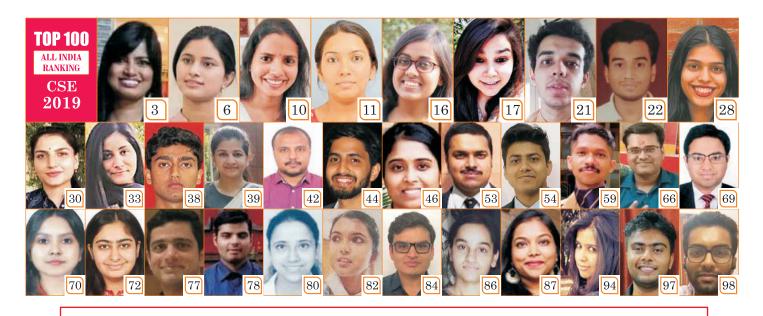
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