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Comprehensive **NEWS** Analysis

15-10-2018
TO
21-10-2018
October
Week 03

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Polity and Governance

1. Special courts to try politicians

Context:

The Supreme Court has upped the ante on the States, Union Territories and High Courts which have not provided it with details of criminal cases pending against sitting lawmakers, warning that their Chief Secretaries and Registrars General will be made personally liable for non-compliance.

- The apex court had on December 14 last year ordered special courts to be established to fast track the long-pending trials against MPs and MLAs in a bid to weed out corruption and criminality in politics. So far, the centre has set up 12 special courts to deal such cases.

Need for special courts:

- There are several high-profile cases against leaders from almost all political parties—regional and national where investigations have dragged on for years and those facing trial have evaded prison.

Implications of this move:

- The Centre's decision could be a setback to politicians who, despite facing serious charges, have remained members of Parliament and state assemblies due to time consumed in trials. Such cases will fall in the purview of special courts and their fate will be decided expeditiously.

Way ahead:

- The court has given 11 States/Union Territories (UTs) and the High Courts of Karnataka, Kerala and Tripura a deadline of four weeks to comply with its September 12 order.
- The order has called on States/UTs to furnish data to determine the number of special courts to be set up across the country to exclusively try accused legislators.
- The States/UTs which have not complied with the September 12 order are Goa, Himachal Pradesh Meghalaya, Mizoram, Punjab, Rajasthan, Uttarakhand, Chandigarh, Dadra and Nagar Haveli, Daman & Diu and Lakshadweep.

2. Youth road safety learners licence programme

Context:

The government has launched the Youth Road Safety Learners Licence programme.

About the youth road safety learners licence programme:

- It is a PPP initiative to be run in collaboration with Diageo India and the Institute of Road Traffic Education (IRTE).

- It attempts to bring a formal and structured training program for the young, first-time drivers as they apply for learner's license.
- It covers varied aspects of responsible driving including defensive driving, ill effects of driving under the influence of alcohol, speeding and wearing of helmets spread over two days.
- In the first year, the programme will cover 20 universities with a total of 400 programmes across the country.

Significance:

- The programme is a part of the Union Government's efforts to emphasize on the importance of road safety, as recent times have seen an alarming rise in road fatalities especially among the youth.
- The programme will help the government achieve its target of reducing road accidents by 50 percent by 2020. It will help improve road safety awareness amongst the young adults by inculcating behavioural change and creating awareness about responsible driving habits.

Background:

- India accounts for 12.5 per cent (over 1.45 lakh fatalities a year) of global road accidents, with one road accident occurring every four minutes. Alarming, 72 per cent victims involved in such road mishaps are between the age groups of 15-44 years with speeding, reckless and drunk driving being the top reason accounting for 1.5 per cent of road traffic accidents and 4.6 per cent of fatalities.
- Some of the major factors resulting in high road accidents include rash driving, drunken driving and the lack of adequate safety measures like not wearing helmets.

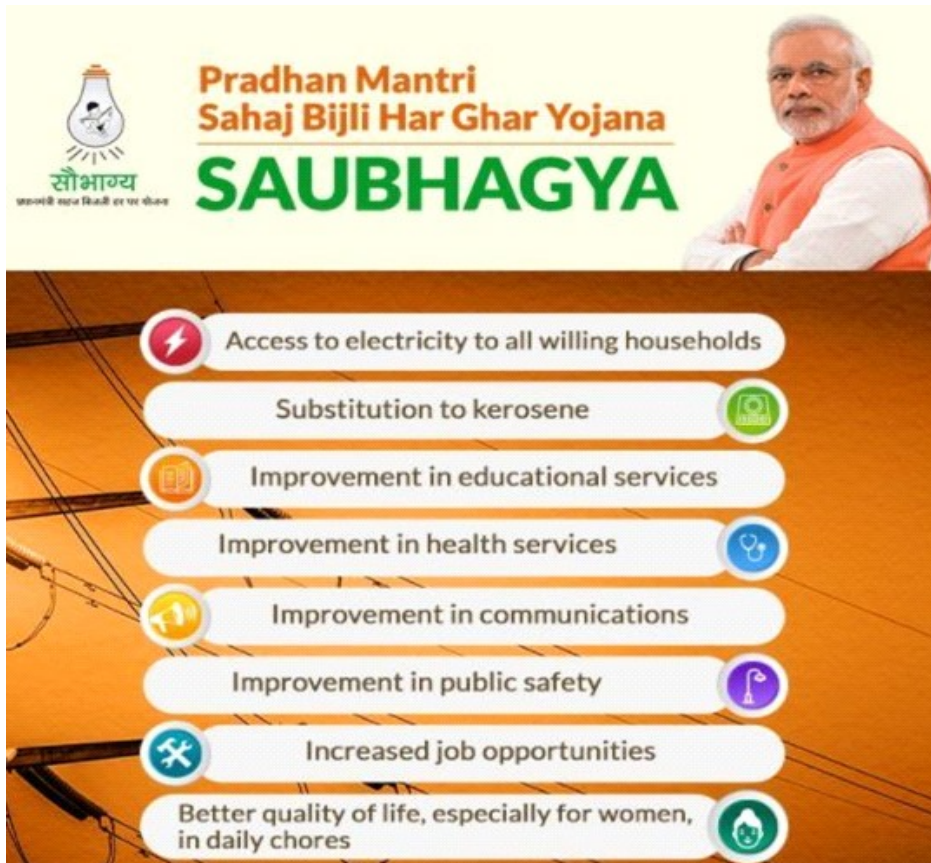
3. 'Saubhagya' scheme

Context:

Ministry of Power and New & Renewable Energy has announced an award scheme under Saubhagya to felicitate the DISCOMs / Power Department of the States and their employees for achieving 100% household electrification in their area of operations. It includes cash prize and certificate of appreciation.

About the award scheme:

- **Eligibility:** Awards would be provided for achieving 100% household electrification at DISCOM/Power Department level of the States. Eight States which have already achieved more than 99% household electrification prior to launch of Saubhagya (Andhra Pradesh, Gujarat, Goa, Haryana, Himachal Pradesh, Kerala, Punjab and Tamil Nadu), are ineligible for participation under the award scheme. All the remaining States and their Discoms are eligible for the award.



- Award will be given in three categories, (i) DISCOMs / Power Departments of Special Category States (which includes seven North Eastern States, Sikkim, J&K and Uttarakhand); (ii) DISCOMs / Power Departments of other than Special Category States (which includes Bihar, Chhattisgarh, Jharkhand, Karnataka, Madhya Pradesh, Maharashtra, Odisha,

Rajasthan, Telengana, Uttar Pradesh and West Bengal) having more than 5 Lakh un-electrified households and (iii) DISCOMs / Power Departments of other than Special Category States having less than 5 Lakh un-electrified households.

About SAUBHAGYA Scheme:

- Pradhan Mantri Sahaj Bijli Har Ghar Yojana – ‘Saubhagya’ was launched in September, 2017.
- Under Saubhagya free electricity connections to all households (both APL and poor families) in rural areas and poor families in urban areas will be provided.
- Rural Electrification Corporation (REC) has been designated as nodal agency for the Saubhagya scheme.
- The scheme aims to achieve universal household electrification in all parts of the country at a cost of Rs 16,320 crore, including Gross Budgetary Support of Rs 12,320 crore from the government.
- All DISCOMs including Private Sector DISCOMs, State Power Departments and RE Cooperative Societies shall be eligible for financial assistance under the scheme in line with DDUGJY.
- The prospective beneficiary households for free electricity connections under the scheme would be identified using SECC 2011 data. However, un-electrified households not covered under SECC data would also be provided electricity connections under the scheme on payment of Rs. 500 which shall be recovered by DISCOMs in 10 installments through electricity bill.

Scope of the Scheme:

- Providing last mile connectivity and electricity connections to all un-electrified households in rural areas.
- Providing Solar Photovoltaic (SPV) based standalone system for un-electrified households located in remote and inaccessible villages / habitations, where grid extension is not feasible or cost effective.
- Providing last mile connectivity and electricity connections to all remaining economically poor un-electrified households in urban areas. Non-poor urban households are excluded from this scheme.
- There are around 4 Crore un-electrified households in the country and they are targeted for providing electricity connections by December 2018.

4. POCSO Act**Context:**

The government has clarified that there is no time bar on reporting crimes related to child sexual abuse. Survivors of child sexual abuse can file a police complaint after they become adults.

The Ministry of Law, after examining the provisions of POCSO Act vis-à-vis provisions of CrPC, has advised that there appears no period of limitation mentioned in Section 19 in regard to reporting of the offences under the POCSO Act, 2012.

Legal provisions:

- Section 19 of the POCSO Act, which deals with sexual crimes against children, lays down the procedure for reporting a crime but doesn't specify a time limit or statute of limitation for reporting it.
- Whereas the CrPC lays down different time-limits for crimes which carry a punishment of up to three years, there is no time bar for crimes that would attract a jail term of more than three years.

Significance:

- This is an important step for survivors of child abuse, who may try to file a complaint as adults but are turned away at police stations.
- The development assumes significance after considering the fact that on many occasions children are unable to report crimes that they suffered as the perpetrator in many cases happens to be from the family itself or any other known person. Several cases have been reported where the victims have grown up and understood the crime.

POCSO Act:

- The Protection of Children from Sexual Offences Act (POCSO Act) 2012 was formulated in order to effectively address sexual abuse and sexual exploitation of children.

- **Role of police:** The Act casts the police in the role of child protectors during the investigative process. Thus, the police personnel receiving a report of sexual abuse of a child are given the responsibility of making urgent arrangements for the care and protection of the child, such as obtaining emergency medical treatment for the child and placing the child in a shelter home, and bringing the matter in front of the CWC, should the need arise.
- **Safeguards:** The Act further makes provisions for avoiding the re-victimization of the child at the hands of the judicial system. It provides for special courts that conduct the trial in-camera and without revealing the identity of the child, in a manner that is as child-friendly as possible. Hence, the child may have a parent or other trusted person present at the time of testifying and can call for assistance from an interpreter, special educator, or other professional while giving evidence. Above all, the Act stipulates that a case of child sexual abuse must be disposed of within one year from the date the offence is reported.
- **Mandatory reporting:** The Act also provides for mandatory reporting of sexual offences. This casts a legal duty upon a person who has knowledge that a child has been sexually abused to report the offence; if he fails to do so, he may be punished with six months' imprisonment and/ or a fine.
- **Definitions:** The Act defines a child as any person below eighteen years of age. It defines different forms of sexual abuse, including penetrative and non-penetrative assault, as well as sexual harassment and pornography. It deems a sexual assault to be "aggravated" under certain circumstances, such as when the abused child is mentally ill or when the abuse is committed by a person in a position of trust or authority like a family member, police officer, teacher, or doctor.

5. Swasth Bharat Yatra national campaign

Context:

Union Government has launched national campaign 'Swasth Bharat Yatra' on occasion of World Food Day (16 October) to sensitize people about eating safe food and be healthy. The campaign has been launched in association with states and led by Food Safety and Standards Authority of India (FSSAI).

About Swasth Bharat Yatra national campaign:

- Under it, pan-India cycle rally is being organized to create consumer awareness about eating safe and nutritious food for becoming healthy and combating food adulteration.
- In this rally, about 7,500 cyclists are expected to participate in over 18,000 km travelling across six tracks through almost every state and UT over 100 days to propagate a powerful message 'Eat Right India'.

- This campaign will not only mobilize masses but also create large pool of local community to sustain this movement.

World Food Day:

- World Food Day is celebrated on October 16 every year to raise awareness on the issues of poverty and hunger. World Food Day was established by Food and Agriculture Organization of the United Nations (FAO) in November 1979 and since then the day is celebrated worldwide by many organisations that are concerned with food security.
- **2018 theme:** "OUR ACTIONS ARE OUR FUTURE. A #ZERO HUNGER WORLD BY 2030 IS POSSIBLE".

About FAO:

- The Food and Agriculture Organization of the United Nations is a specialized agency of the United Nations that leads international efforts to defeat hunger. Serving both developed and developing countries, FAO acts as a neutral forum where all nations meet as equals to negotiate agreements and debate policy.

6. Pradhan Mantri Bhartiya Janaushadhi Pariyojana (PMBJP)

Context:

Central Warehouse of Pradhan Mantri Bhartiya Janaushadhi Pariyojana has been set up at Bilaspur, Gurugram. It has been setup by the Bureau of Pharma PSUs of India (BPPI).

The hi-tech Central Warehouse would facilitate seamless distribution of Jan Aushadhi generic medicines to all PMBJP Kendra functional across the country.

About PMBJP:

- 'Pradhan Mantri Bhartiya Janaushadhi Pariyojana' is a campaign launched by the Department of Pharmaceuticals, Govt. Of India, to provide quality medicines at affordable prices to the masses through special kendra's known as Pradhan Mantri Bhartiya Jan Aushadhi Kendra.
- Pradhan Mantri Bhartiya Jan Aushadhi Kendra (PMBJK) have been set up to provide generic drugs, which are available at lesser prices but are equivalent in quality and efficacy as expensive branded drugs.
- Bureau of Pharma PSUs of India (BPPI) is the implementing agency of PMBJP. BPPI (Bureau of Pharma Public Sector Undertakings of India) has been established under the Department of Pharmaceuticals, Govt. of India, with the support of all the CPSUs.

What is a Generic Medicine?

- Generic medicines are unbranded medicines which are equally safe and having the same efficacy as that of branded medicines in terms of

their therapeutic value. The prices of generic medicines are much cheaper than their branded equivalent.

7. MeToo campaign- Justice Verma Committee

Context:

The Centre recently announced its plan to set up a panel of judges to look into the legal and institutional framework to curb sexual harassment at workplaces following the #MeToo campaign on social media.

<h3>What Verma panel said</h3> <ul style="list-style-type: none"> • Proposed forming an employment tribunal to receive and adjudicate all complaints • Tribunal should be appointed by a collegium headed by the Chief Justice of the concerned High Court • Should comprise two retired judges with at least one of them being a woman, two eminent sociologists and one social activist with experience in the field of gender-based discrimination 	 <ul style="list-style-type: none"> • To ensure speedy disposal of complaints, the tribunal should not function as a civil court but may choose its own procedure to deal with each complaint
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- However, as early as 2013, the Justice J.S. Verma Committee, in its landmark report on gender laws, had recommended setting up of an employment tribunal instead of an internal complaints committee (ICC) in sweeping changes to the Sexual Harassment at the Workplace Bill.
- The panel was formed in the aftermath of the December 16 Nirbhaya gangrape in 2012 and the ensuing nationwide protests, and submitted its report on January 23, 2013.
- At that time of the submission of the report, the Sexual Harassment at Workplace (Prevention, Prohibition and Redressal) Bill had already been passed by the Lok Sabha and was awaiting the Rajya Sabha's nod. The Bill was passed unchanged by the Upper House a month later.
- The Committee, chaired by Justice Verma and including Justice Leila Seth and senior lawyer Gopal Subramaniam, termed the Sexual Harassment Bill "unsatisfactory" and said it did not reflect the spirit of the Vishakha guidelines — framed by the Supreme Court in 1997 to curb sexual harassment at the workplace.

Major recommendations made by the panel:

- **Punishment for Rape:** The panel has not recommended the death penalty for rapists. It suggests that the punishment for rape should be

rigorous imprisonment or RI for seven years to

- **Punishment for other sexual offences:** The panel recognized the need to curb all forms of sexual offences and recommended – Voyeurism be punished with upto seven years in jail; stalking or attempts to contact a person repeatedly through any means by up to three years. Acid attacks would be punished by up to seven years if imprisonment; trafficking will be punished with RI for seven to ten years.
- **Registering complaints and medical examination:** Every complaint of rape must be registered by the police and civil society should perform its duty to report any case of rape coming to its knowledge. Any officer, who fails to register a case of rape reported to him, or attempts to abort its investigation, commits an offence which shall be punishable as prescribed.
- **Marriages to be registered:** As a primary recommendation, all marriages in India (irrespective of the personal laws under which such marriages are solemnized) should mandatorily be registered in the presence of a magistrate. The magistrate will ensure that the marriage has been solemnized without any demand for dowry having been made and that it has taken place with the full and free consent of both partners.
- **Amendments to the Code of Criminal Procedure:** The panel observed, “The manner in which the rights of women can be recognized can only be manifested when they have full access to justice and when the rule of law can be upheld in their favour.” The proposed Criminal Law Amendment Act, 2012, should be modified, suggests the panel.
- **Bill of Rights for women:** A separate Bill of Rights for women that entitles a woman a life of dignity and security and will ensure that a woman shall have the right to have complete sexual autonomy including with respect to her relationships.
- **Review of the Armed Forces Special Powers Act:** The panel has observed that the “impunity of systematic sexual violence is being legitimized by the armed forces special powers act.” It has said there is an imminent need to review the continuance of AFSPA in areas as soon as possible. It has also recommended posting special commissioners for women’s safety in conflict areas.
- **Police reforms:** To inspire public confidence, the panel said, “police officers with reputations of outstanding ability and character must be placed at the higher levels of the police force.” All existing appointments need to be reviewed to ensure that the police force has the requisite moral vision.
- **Role of the judiciary:** The judiciary has the primary responsibility of enforcing fundamental rights, through constitutional remedies. The judiciary can take suo motu cognizance of such issues being deeply concerned with them both in the Supreme Court and the High Court.

An all India strategy to deal with this issue would be advisable. The Chief Justice of India could be approached to commence appropriate proceedings on the judicial side. The Chief Justice may consider making appropriate orders relating to the issue of missing children to curb the illegal trade of their trafficking etc.

- **Political Reforms:** The Justice Verma committee observed that reforms are needed to deal with criminalization of politics. The panel has suggest that, in the event cognizance has been taken by a magistrate of an criminal offence, the candidate ought to be disqualified from participating in the electoral process. Any candidate who fails to disclose a charge should be disqualified subsequently. It suggested lawmakers facing criminal charges, who have already been elected to Parliament and state legislatures, should voluntarily vacate their seats.

8. Azad Hind Government

Context:

Seventy years after Subhash Chandra Bose assumed the leadership of the 'Azad Hind Government', PM Narendra Modi will hoist the national flag and unveil a plaque to celebrate the 75th anniversary of the erstwhile government on October 21 at the Red Fort.

About Azad Hind Government:

- Netaji Subhash Chandra Bose had announced the establishment of the provisional government of Azad Hind in occupied Singapore in 1943.
- Known as Arzi Hukumat-e-Azad Hind, it was supported by the Axis powers of Imperial Japan, Nazi Germany, the Italian Social Republic, and their allies.
- The revered freedom fighter had launched a struggle to free India from British rule under the banner of the provisional government-in exile during the latter part of the Second World War.

Objectives:

- Bose was convinced that armed struggle was the only way to achieve independence for India. He had been a leader of the radical wing of the Indian National Congress in the late 1920s and 1930s, rising to become Congress president in 1938 and 1939 but was ousted following differences with Mahatma Gandhi and the Congress leadership.
- Under his provisional government, the Indians living abroad had been united. The Indian National Army drew ex- prisoners and thousands of civilian volunteers from the Indian expatriate population in Malaya (present-day Malaysia) and Burma (now Myanmar).

The formation:

- On October 21, 1943, in his address announcing the setting up of the

provisional government, he said India's Army of Liberation was drawn up in military formation on the battlefield of Singapore which was once the bulwark of the British Empire.

- Under the provisional government, Bose was the head of the state, the prime minister and the minister for war and foreign affairs. Captain Lakshmi headed the women's organization while S A Ayer headed the publicity and propaganda wing.
- Revolutionary leader Rash Behari Bose was designated as the supreme advisor. The provisional government was also formed in the Japanese-occupied Andaman and Nicobar Islands. The islands were re-occupied by the British in 1945.
- Bose's death was seen as the end to the Azad Hind movement. The Second World War, also ended in 1945 with the defeat of the Axis powers.

9. NCW Launches E-mail ID For Sexual Harassment At Workplace Cases

Context:

The National Commission for Women (NCW) has come out with a dedicated e-mail address to report instances of sexual harassment at workplace after several such complaints were made to the body by women under the #Metoo movement on social media.

- The Commission urges women who have come forward on social media and other platforms about their alleged harassers to send their formal written complaints to metoo@gmail.com.
- The NCW will take forward complaints of sexual harassment at workplace received on the mail so that appropriate action may be taken, as per law.

What you need to know about NCW?

- The National Commission for Women was set up as statutory body in January 1992 under the National Commission for Women Act, 1990.
- The primary mandate of the National Commission for Women and State Commissions for Women Commission is to safeguard and protect the interests of women. It has wide responsibility covering almost all aspects of women development.
- The commission regularly publishes a monthly newsletter, Rashtra Mahila in both Hindi and English.

International Relations

10. Regional Comprehensive Economic Partnership (RCEP)

Context:

The 6th Interregional Ministerial Meeting of Regional Comprehensive Economic Partnership (RCEP) was held recently in Singapore.

- Trade ministers of 16-member RCEP bloc, including India and China, have urged all participating countries to continue to exert all efforts for early conclusion of the negotiations.
- The meeting assumes significance as there is a tremendous pressure on India to conclude the negotiations as early as possible despite the fact that several issues pertaining to goods and services have yet to be agreed upon by the member countries.

What you need to know about RCEP?

- RCEP is proposed between the ten member states of the Association of Southeast Asian Nations (ASEAN) (Brunei, Burma (Myanmar), Cambodia, Indonesia, Laos, Malaysia, the Philippines, Singapore, Thailand, Vietnam) and the six states with which ASEAN has existing FTAs (Australia, China, India, Japan, South Korea and New Zealand).
- RCEP negotiations were formally launched in November 2012 at the ASEAN Summit in Cambodia. RCEP aims to boost goods trade by eliminating most tariff and non-tariff barriers — a move that is expected to provide the region's consumers greater choice of quality products at affordable rates. It also seeks to liberalize investment norms and do away with services trade restrictions.

India's Concerns with member countries:

- Greater access to Chinese goods may have impact on the Indian manufacturing sector. India has already got massive trade deficit with China.
- There are demands by other RCEP countries for lowering customs duties on a number of products and greater access to the market than India has been willing to provide.

Challenges ahead for India:

- More developed countries such as Australia and Singapore are unwilling to accommodate India's demands to liberalize their services regime and allow freer mobility of Indian workers.

Way ahead:

- The negotiations on the Regional Comprehensive Economic Partnership, among 16 Asian and Pacific Ocean countries, have entered a decisive phase. Most potential member-countries of the grouping

would like to see a “substantive agreement” on the trade deal by the end of this year.

- At a meeting in Singapore countries which still have issues with the outline of the agreements reached so far may be told politely to step aside and allow a smaller group to go ahead with finalising the RCEP.

11. ASEM Summit

Context:

12th Asia-Europe Meeting (ASEM) is being held in Brussels.

Theme: ‘Global Partners for Global Challenges’.

ASEM:

- The Asia-Europe Meeting (ASEM) is an informal process of dialogue and cooperation bringing together the 28 European Union member states, 2 other European countries, and the European Union with 21 Asian countries and the ASEAN Secretariat.
- The ASEM dialogue addresses political, economic and cultural issues, with the objective of strengthening the relationship between the two regions, in a spirit of mutual respect and equal partnership.
- It was officially established on 1 March 1996 at the first summit in Bangkok, Thailand.
- The ASEM Summit is a biennial meeting between the Heads of State and Government, the President of the European Council, the President of the European Commission, and the Secretary-General of the Association of Southeast Asian Nations (ASEAN).

12. ADMM-Plus

Context:

The 12th ASEAN Defence Ministers Meeting (ADMM) and 5th ADMM-Plus were held recently in Singapore.

- The conferences were attended by defence ministers from India, Australia, China, Japan, New Zealand, South Korea, Russia and US. This was second time Singapore has chaired ADMM since its establishment in 2006 and first time to chair ADMM-Plus since its establishment in 2010.
- ADMM and ADMM-Plus serves as key Ministerial-level platforms in regional security architecture for promoting strategic dialogue and practical cooperation between ASEAN and its partners.

About ASEAN:

- The Association of Southeast Asian Nations, or ASEAN, was established on 8 August 1967 in Bangkok, Thailand, with the signing of the ASEAN

Declaration (Bangkok Declaration) by the Founding Fathers of ASEAN, namely Indonesia, Malaysia, Philippines, Singapore and Thailand.

- At present there are 10 members namely, Brunei Darussalam, Cambodia, Indonesia, Laos, Malaysia, Myanmar, the Philippines, Singapore, Thailand and Viet Nam.
- The motto of ASEAN is “One Vision, One Identity, One Community”.

ADMM-Plus:

- ADMM-Plus is platform for ASEAN and its eight dialogue partners to strengthen security and defence co-operation for peace, stability, and development in the region. Its objective is to promote mutual trust and confidence between defence establishments through greater dialogue and transparency.
- The inaugural ADMM-Plus was convened in Hanoi, Vietnam in 2010. The defence ministers then had agreed on five areas of practical cooperation, including maritime security, counter-terrorism, peacekeeping operations and humanitarian assistance.

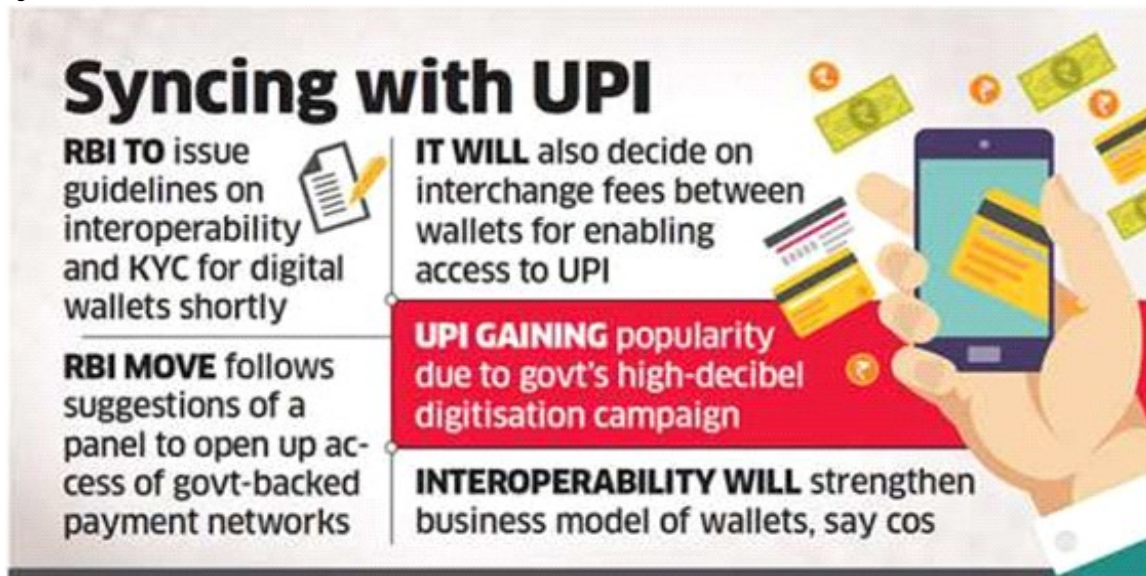


Economy

13. Unified payments interface (UPI)

Context:

The Reserve Bank of India has released the guidelines for interoperability between prepaid payment instruments (PPIs) such as wallets and cards that will effectively allow users of popular payment wallets such as Paytm, Freecharge, Mobikwik, PhonePe and PayZapp, among others, to transfer money from one wallet to another.



- As per the guidelines, where PPIs are issued in the form of wallets, interoperability across PPIs shall be enabled through UPI and Where PPIs are issued in the form of cards, the cards shall be affiliated to the authorized card networks.

Significance:

- The guidelines, while boosting the e-wallet segment, would also ensure the safety and accuracy of the transfer of money by individuals from one wallet to another.
- The interoperability amongst PPIs is going to significantly boost the e-wallet industry. The guidelines would also ensure that not only the customer's money remains safe but when the transition happens from one e-wallet app to another, it reflects utmost speed and accuracy for the interoperability to be effective and efficient.

What exactly is UPI?

- The Unified Payments Interface (UPI) is a system developed by the NPCI and the RBI to aid instant transfer of money using a cashless system. Using UPI services, one just requires a smart phone and a banking app to send and receive money instantly or to pay a merchant for retail purchase. In the long run, UPI is likely to replace the current NEFT, RTGS, and IMPS systems as they exist today.

The UPI ecosystem functions with three key players:

- Payment service providers (PSPs) to provide the interface to the payer and the payee. Unlike wallets, the payer and the payee can use two different PSPs.
- Banks to provide the underlying accounts. In some cases, the bank and the PSP may be the same.
- NPCI to act as the central switch by ensuring VPA resolution, effecting credit and debit transactions through IMPS.

How does it work?

- UPI, built on IMPS, allows a payment directly and immediately from bank account. There is no need to pre-load money in wallets. It allows payments to different merchants without the hassle of typing one's card details or net-banking password.

14. Global Competitiveness Index 2018**Context:**

The World Economic Forum (WEF) has released the Global Competitiveness Report 2018.

Performance of India:

- India was ranked as the 58th most competitive economy with a score of 62.0 on the Global Competitiveness Index 2018.
- India jumped five spots from 2017, the largest gain among G20 economies.
- India ranked highest among South Asian countries. Sri Lanka was ranked 86th, Bangladesh 103rd, Pakistan 107th and Nepal 109th.
- As per the report, India leads the region in all other areas of competitiveness except for health, education and skills.
- As per the report, India's greatest competitive advantages include its market size and innovation.

Global performance:

- On the list of 140 economies, the United States topped the list with a score of 85.6, followed by Singapore and Germany at the second and the third positions respectively.
- Other countries in the top 10 include Switzerland (4th), Japan (5th), Netherlands (6th), Hong Kong (7th), United Kingdom (8th), Sweden (9th) and Denmark (10th).
- In Europe, Sweden is ranked the highest among the Nordic economies at 9th position, while France (17th) is among the top 20. Countries such as Germany and Switzerland set the global standards for innovation.

- Competitiveness performance in the Middle East and North Africa remains diverse, with Israel (20th) and the United Arab Emirates (27th), leading the way in their respective regions.
- 17 of the 34 sub-Saharan African economies are among the bottom 20. Mauritius (49th) leads the region, ahead of South Africa and nearly 91 places ahead of Chad (140th).
- Among the BRICS economies, China topped the list at 28th place with a score of 72.6, followed by Russia, India, South Africa and Brazil respectively.

Background:

- The Global Competitiveness Index (GCI) is prepared on the basis of country-level data covering 12 categories or pillars of competitiveness.
- Institutions, infrastructure, macroeconomic environment, health and primary education, higher education and training, goods market efficiency, labour market efficiency, financial market development, technological readiness, market size, business sophistication and innovation are the 12 pillars.

15. Data Localization

Context:

A last-minute effort to dilute the Reserve Bank of India (RBI) directive on data localization by American global payment companies has triggered direct intervention by US lawmakers urging Prime Minister Narendra Modi to soften tough stand taken by the country's monetary authority.

- The US companies want Donald Trump administration to put pressure on Indian authorities in a bid to seek relaxation on the RBI order of ensuring implementation of data localization by 15 October. US companies have been lobbying with the Finance Ministry and the RBI over the issue.
- U.S trade groups, representing companies such as Amazon, American Express and Microsoft, have opposed India's push to store data locally. That push comes amid rising global efforts to protect user data but is one that could hit planned investments by the firms in the Indian market, where the companies currently have limited data storage.

What does Data Localization mean?

- Data localization is the act of storing data on any device that is physically present within the borders of a specific country where the data was generated.
- Free flow of digital data, especially data which could impact government operations or operations in a region, is restricted by some governments. Many attempt to protect and promote security across borders, and therefore encourage data localization.

Policy goals:

- Goals set in the Draft National Digital Communications Policy 2018, along with various government notifications and guidelines such as Reserve Bank of India's notification on Payment Data Storage 2018, and the Guidelines for Government Departments for Contractual Terms related to Cloud Storage 2017, show signs of data localisation.
- The rationale behind such mandates has been attributed to various factors, such as: securing citizen's data, data privacy, data sovereignty, national security, and economic development of the country. The extensive data collection by technology companies, due to their unfettered access and control of user data, has allowed them to freely process and monetise Indian users' data outside the country.

Why technology firms are worried?

- Stricter localisation norms would help India get easier access to data when conducting investigations, but critics say it could lead to increased government demands for data access. Technology firms worry the mandate would hurt their planned investments by raising costs related to setting up new local data centres.

Why government is in favour of data localisation?

- Greater use of digital platforms in India for shopping or social networking have made it a lucrative market for technology companies, but a rising number of data breaches have pushed New Delhi to develop strong data protection rules.
- Also, minimal or deregulated governance on critical data, due to absence of localisation requirements, could be detrimental to India's national security as data would be outside the purview of existing data protection legislation. The ineffectiveness of Mutual Legal Assistance Treaties (MLATs) in this realm aggravates such government fears.
- In addition to these, India also aspires to become a global hub for, among others, cloud computing, data hosting and international data centres, all of which are prompting the government to enact data localisation requirements for accelerating the nation's economic growth, especially in the sphere of digital technologies.
- Is data localisation the solution to physical data access and decryption of enciphered data? Can data localisation be conflated with access?
- The proposed law by Srikrishna Committee cannot be a knee-jerk reaction to some events; it has to be in line with the SC judgement, which supports the march of technology, innovations, growth of knowledge, and big data analytics for the growth of economies, and for better services to citizens. It recognizes the role of data driven innovation (DDI) for the growth of economies, and for job creation.

But it emphasises that the data so collected be utilised for legitimate purposes.

Way ahead:

- Though these policy goals are justifiable, a deeper analysis is required to determine the possible adverse spill-over effects on relevant stakeholders in case a faulty roadmap is adopted to achieve them.
- Adequate attention needs to be given to the interests of India's Information Technology Enabled Services (ITeS) and Business Process Outsourcing (BPO) industries, which are thriving on cross-border data flow.

16. IMF Quotas

Context:

India has called for quota reforms so that share of emerging nations increases in line with their growing economic position. Quota shares of Emerging Market & Developing Countries need increase in line with its growing relative economic position in the world.





IMF – Membership Qualifications



- The IMF is a quota-based institution. Quotas are the building blocks of the IMF's financial and governance structure. An individual member country's quota broadly reflects its relative position in the world economy. Quotas are denominated in Special Drawing Rights (SDRs), the IMF's unit of account.

Multiple roles of quotas:

- **Resource Contributions:** Quotas determine the maximum amount of financial resources a member is obliged to provide to the IMF.

Resource Contributions	Voting Power	Access to Financing	SDR Allocations
Quotas determine the maximum amount of financial resources a member is obliged to provide to the IMF.	Quotas are a key determinant of the voting power in IMF decisions. Votes comprise one vote per SDR100,000 of quota plus basic votes (same for all members).	The maximum amount of financing a member can obtain from the IMF under normal access is based on its quota.	Quotas determine a member's share in a general allocation of SDRs.
			

- **Voting Power:** Quotas are a key determinant of the voting power in IMF decisions. Votes comprise one vote per SDR100,000 of quota plus basic votes (same for all members).
- **Access to Financing:** The maximum amount of financing a member can obtain from the IMF under normal access is based on its quota.
- **SDR Allocations:** Quotas determine a member's share in a general allocation of SDRs.
- **Quota reviews:**
 - The IMF's Board of Governors conducts general quota reviews at regular intervals (no more than five years). Any changes in quotas must be approved by an 85% majority of the total voting power, and a member's own quota cannot be changed without its consent.
 - Two main issues addressed in a general quota review are the size of an overall quota increase and the distribution of the increase among the members.

About IMF:

- The IMF, along with the World Bank, was conceived in 1944 at a conference in Bretton Woods, in the US state of New Hampshire.
- It aims to preserve economic stability and to tackle – or ideally prevent – financial crises. Over time, its focus has switched to the developing world.
- The IMF is funded by a charge – known as a “quota” – paid by member nations – based on a country's wealth.
- The IMF also acts as a lender of last resort, disbursing its foreign exchange reserves for short periods to any member in difficulties.

17. Financial Action Task Force (FATF)

Context:

After an on-site assessment of the steps taken by Pakistan to curb terror financing and money laundering, a visiting Financial Action Task Force (FATF) team has finalised a report with 40 recommendations for de-listing Islamabad from its grey list from September next year.

- The 40 recommendations are segregated in 11 outcomes performance benchmarks. Pakistan is compliant in more than 50% of the recommendations.
- Pakistan was placed on the grey list by the FATF in June for failing to curb anti-terror financing. It has been scrambling in recent months to avoid being added to a list of countries deemed non-compliant with anti-money laundering and terrorist financing regulations by the Paris-based FATF, a measure that officials here fear could further hurt its economy.

About FATF:

- The Financial Action Task Force (FATF) is an inter-governmental body established in 1989 on the initiative of the G7. It is a “policy-making body” which works to generate the necessary political will to bring about national legislative and regulatory reforms in various areas. The FATF Secretariat is housed at the OECD headquarters in Paris.

Objectives:

- The objectives of the FATF are to set standards and promote effective implementation of legal, regulatory and operational measures for combating money laundering, terrorist financing and other related threats to the integrity of the international financial system.

Functions:

- The FATF monitors the progress of its members in implementing necessary measures, reviews money laundering and terrorist financing techniques and counter-measures, and promotes the adoption and implementation of appropriate measures globally. In collaboration with other international stakeholders, the FATF works to identify national-level vulnerabilities with the aim of protecting the international financial system from misuse.

18. RBI objects to payments regulator outside its control

Context:

The Reserve Bank of India (RBI) has opposed the Centre’s proposal to set up an independent Payment Regulatory Board (PRB) which will oversee all payment systems in the country stating that the proposed body “must remain with the Reserve Bank” and headed by the RBI Governor.

- Coming out strongly against the Inter-Ministerial Committee’s proposal to take PRB out of the RBI’s purview, the RBI said there has been no evidence of any inefficiency in payment systems of India.
- The seven-member government panel was headed by Subhash Chandra Garg. The panel proposed in August that a payments regulator should be established independent of the RBI, with a chairperson appointed by the government in consultation with the RBI. The

proposal overruled the central bank's recommendation that its governor should be head of the payments regulator.

Why the RBI is opposing this move?

- The RBI cited the report of the Ratan Watal Committee on digital payments as recommending the establishment of the PRB within the overall structure of the RBI, arguing therefore that there is no need for any deviation.
- Also, as per RBI, there has been no evidence of any inefficiency in payment systems of India. The digital payments have made good and steady progress. India is gaining international recognition as a leader in payment systems. Given this, there need not be any change in a well-functioning system.
- The RBI has argued that the payment system is bank-dominated in India. "Regulation of the banking systems and payment system by the same regulator provides synergy and inspires public confidence in the payment instruments. Regulation of the payment system by the central bank is the dominant international model for stability consideration. Thus, having the regulation and supervision over Payment and Settlement systems with the central bank will ensure holistic benefits," it said.

Way ahead:

- The RBI said it is not totally against a new Payment and Settlement System Bill but stressed that changes should not lead to existing foundations being shaken in a well-functioning structure.

19. India's first Bitcoin ATM kiosk set up in Bengaluru

Context:

Amidst uncertainty over the validity of cryptocurrencies and the Central government directions preventing banks from trading the same, Unocoin Technologies Private Ltd has set up India's first ATM kiosk to trade in cryptocurrencies in Bengaluru.

- The first-of-its-kind automated teller machine will have both a trading and exchange platform, and will allow verified customers to use the device. It is expected to become operational soon.
- This kiosk is accessible to registered customers of Unocoin. The customers will be able to buy or sell up to 10 Bitcoins — one of the high value cryptocurrencies per day. However, all the transactions will have to be conducted in Indian rupees which will then be changed into the currency of choice of the consumer.
- The kiosk will allow customers to trade in Bitcoin and Ethereum, while providing an exchange platform for 24 other cryptocurrencies in circulation.

- Customers risking the use of Bitcoins will have to register by using their mobile number and entering a password. A verification process is initiated during which details such as PAN number, phone number, address, bank details, and others have to be furnished. It uses an elaborate procedure for both deposits and withdrawals, with the withdrawals requiring a prior request and 12-digit OTP.

What is bitcoin?

- Bitcoin is one of many cryptocurrencies that have gained popularity across the world.
- A cryptocurrency is a basically a digital asset that has been created to function as a medium of exchange, like cash.
- It uses cryptography to ensure the security of transactions — authentication and prevention of duplicate transactions — and to control the creation of new units of currency.
- This is different from cash in that cryptocurrencies have no physical form. These blur the boundaries between fiat and non-fiat currencies. They are simply numbers on a screen and there is no central bank that issues new currency. However, bitcoin has emerged as the popular face of cryptocurrencies.

Fiat and Non-fiat currency:

- A fiat currency is any currency that has no intrinsic physical value, but whose value is established by government decree. For example, most national currencies around the world, including the Rupee and the Dollar, are fiat currencies as their values are dictated by the government.
- Non-fiat currencies such as the Gold Standard have more or less been effectively phased out, as they require adequate physical stockpiles to maintain their value.
- However, the new breed of digital cryptocurrencies such as Bitcoin blurs the boundaries between fiat and non-fiat – they don't have any physical value as such, but are also not government-controlled. This has created uncertainties about their role in the modern financial system.

20. Currency monitoring list

Context:

In its latest report, the US has said that it could remove India from its currency monitoring list of major trading partners citing certain developments and steps taken by New Delhi, which address some of its major concerns.

- India was for the first time, in April, placed by the US in its currency monitoring list of countries with potentially questionable foreign

exchange policies along with five other countries — China, Germany, Japan, South Korea and Switzerland.

- India's circumstances have shifted markedly, as the central bank's net sales of foreign exchange over the first six months of 2018 led net purchases over the four quarters through June 2018 to fall to \$4 billion, or 0.2% of GDP.
- This represented a notable change from 2017, when purchases over the first three quarters of the year pushed net purchases of foreign exchange above 2% of GDP. Recent sales came amid a turnaround in foreign portfolio inflows, as foreign investors pulled portfolio capital out of India (and many other emerging markets) over the first half of the year.
- The rupee depreciated by around 7% against the dollar and by more than 4% on a real effective basis in the first half of 2018. India has a significant bilateral goods trade surplus with the US, totalling \$23 billion over the four quarters through June 2018, but India's current account is in deficit at 1.9% of GDP.

On what basis is a country named a 'currency manipulator'?

- The three pre-conditions for being named currency manipulator are: a trade surplus of over \$20 billion with the US, a current account deficit surplus of 3% of the GDP, and persistent foreign exchange purchases of 2% plus of the GDP over 12 months.

21. Strategic Petroleum Reserves

Context:

India is planning to forge partnerships with private players to build out its strategic petroleum reserves within the coming year.

- It is seeking \$1.5 billion of investments from global oil producers and traders to build additional emergency crude reserves that will act as a buffer against volatility in oil prices. The plan is to build underground caverns that can hold a combined 6.5 million tons of crude at two locations.
- India has built 5.33 million tons of underground reserves in three locations, including Padur, under an earlier phase that can meet 9.5 days of the country's oil needs. The government purchased crude to fill the caverns in Visakhapatnam in Andhra Pradesh and half of another facility in Mangalore in Karnataka, while leasing out the other half to Abu Dhabi National Oil Co.
- Indian Strategic Petroleum Reserves, which was formed in 2006, is scouting investors to fill the caverns at Padur. It will hold roadshows in New Delhi, Singapore and London this month to draw investors for the new caverns as well as filling the Padur facility.

About SPR programme:

- To ensure energy security, the Government of India had decided to set up 5 million metric tons (MMT) of strategic crude oil storages at three locations namely, Visakhapatnam, Mangalore and Padur (near Udupi). These strategic storages would be in addition to the existing storages of crude oil and petroleum products with the oil companies and would serve as a cushion during any external supply disruptions.
- In the 2017-18 budget, it was announced that two more such caverns will be set up Chandikhole in Jajpur district of Odisha and Bikaner in Rajasthan as part of the second phase.
- The construction of the Strategic Crude Oil Storage facilities is being managed by Indian Strategic Petroleum Reserves Limited (ISPRL), a Special Purpose Vehicle, which is a wholly owned subsidiary of Oil Industry Development Board (OIDB) under the Ministry of Petroleum & Natural Gas.

Need for strategic oil reserves:

- In 1990, as the Gulf war engulfed West Asia, India was in the throes of a major energy crisis. By all accounts India's oil reserves at the time were adequate for only three days. While India managed to avert the crisis then, the threat of energy disruption continues to present a real danger even today.
- It is unlikely that India's energy needs will dramatically move away from fossil fuels in the near future. Over 80% of these fuels come from imports, a majority of which is sourced from West Asia. This is a major strategic risk and poses a massive financial drain for an embattled economy and its growing current account deficit.
- To address energy insecurity, the Atal Bihari Vajpayee government mooted the concept of strategic petroleum reserves in 1998. Today, with India consuming upwards of four million barrels of crude every day (January 2015 figures), the case for creating such reserves grows stronger.

Location	Contact Number	Admission Date
Ashok Nagar	+91 991 244 1138	July 09 Monday
Madhapur	+91 990 856 4438	June 09 Saturday
New Delhi	+91 880 028 3132	July 02 Monday
Visakhapatnam	+91 998 513 6789	June 25 Monday
Guntur	+91 996 335 6789	July 02 Monday

ADMISSIONS OPEN FOR NEW BATCHES

Geography and Environment

22. Sikkim wins FAO's Future Policy Award 2018

Context:

Sikkim has been awarded UN Food and Agriculture Organisation's (FAO) Future Policy Gold Award (Gold Prize) for its achievement in becoming the world's first totally organic agriculture state.

- Sikkim became the first fully organic state of India in 2016. Over the years around 75000 hectares of land in the state has been converted into certified organic farms following the guidelines as prescribed by National Programme for Organic Production.
- Within 1.24 million tonnes of organic production in the country around 80000 million is supplied by Sikkim alone.

Organic farming and its significance:

- Organic cultivation doesn't involve the use of chemical pesticides and fertilizers and thus helps to maintain a harmonious balance among the various complex ecosystems.
- Also it improves the quality of the soil which further improves the standards of the crops produced there. In the long term, organic farming leads in subsistence of agriculture, bio-diversity conservation and environmental protection.
- It will also help in building the soil health resulting in sustainable increased crop production.

The first steps towards an Organic State:

- The first step towards making Sikkim an organic state was to recognise its natural factors that made it an ideal location for organic farming. These included its topography, the local use of traditional farming systems, the diversity of its climatic conditions and the fact the local soil is rich in organic carbon.
- Then, in 2003, the 'Going for Organic Farming in Sikkim' programme was prepared, along with the Sikkim State Organic Board, which prioritised the creation of new infrastructures and the mobilising of resources. From here, a seven-year plan was introduced to ban chemical fertilisers – gradually replacing them with organic plant nutrients.

The initiatives that propelled Sikkim's progress:

- In 2004, the production of organic manure began, replacing other compost.
- Between 2004 and 2006, two seed testing and processing units were introduced, as well as soil testing laboratories for studying soil health.
- The Centre of Excellence for Organic Farming was created.

- Starting in 2008, several organic certification programmes took place, with much of the land being certified by organisations such as the Department of Science and Technology and the Food Security and Agriculture Department.
- In 2010, a bio fertiliser production unit was put together, and the National Level Workshop was introduced in Sikkim's villages.
- Later that year, a plan for the adoption of fully organic farming was put into place, known as the Sikkim Organic Mission.

Maintaining the state for the future- To ensure Sikkim stays green in the long term, there are a few additional initiatives that have been introduced to the state:

- Firstly, animals are no longer allowed to graze in the reserve forest in order to conserve natural resources. There are still plenty of other spaces for animals to graze, while protecting this land.
- Plastic bags have been banned, encouraging shoppers to take their own bags to the store to cut down on plastic manufacturing and waste.
- The State Green Mission was launched, which includes planting fruit bearing trees, plantation drives and more.

Future Policy Gold Award:

- The prizes, nicknamed the "Oscar for best policies", honour exceptional policies adopted by political leaders who have decided to act, no longer accepting widespread hunger, poverty or environmental degradation.
- Previously it was honoured for policies combating desertification, violence against women and girls, nuclear weapons and pollution of the oceans.

23. LPG set to make Kerala the first smoke-free State

Context:

Kerala is now set to become the first smoke-free State in the country with public sector oil companies eyeing 100% LPG penetration here.



- LPG is being supplied beyond commercial considerations with the Pradhan Mantri Ujjwala Yojana initiated by the Ministry of Petroleum.
- With three bottling plants at Kochi, Kozhikode, and Kollam, LPG is being brought to 49.79 lakh customers through 308 distributors.
- Kerala is one of the States with the highest penetration of LPG, which is transforming lifestyles. The target has almost been achieved in most villages, towns and cities in the Kerala.

- LPG consumption was 933.3 TMT (thousand tonnes) in the Kerala in 2017-18. It is estimated that one crore tonnes of emissions, from poisonous gases like firewood cooking, have been contained and 25 lakh trees have been saved.

About Pradhan Mantri Ujjwala Yojana:

Pradhan Mantri Ujjwala Yojana aims to provide LPG (liquefied petroleum gas) connections to poor households.

- **Eligibility:** Under the scheme, an adult woman member of a below poverty line family identified through the Socio-Economic Caste Census (SECC) is given a deposit-free LPG connection with financial assistance of Rs 1,600 per connection by the Centre.
- **Identification of households:** Eligible households will be identified in consultation with state governments and Union territories. The scheme is being implemented by the Ministry of Petroleum and Natural Gas.

Some of the objectives of the scheme are:

- Empowering women and protecting their health.
- Reducing the serious health hazards associated with cooking based on fossil fuel.
- Reducing the number of deaths in India due to unclean cooking fuel.
- Preventing young children from significant number of acute respiratory illnesses caused due to indoor air pollution by burning the fossil fuel.

What makes LPG adoption necessary?

- A large section of Indians, especially women and girls, are exposed to severe household air pollution (HAP) from the use of solid fuels such as biomass, dung cakes and coal for cooking. A report from the Ministry of Health & Family Welfare places HAP as the second leading risk factor contributing to India's disease burden.
- According to the World Health Organization, solid fuel use is responsible for about 13% of all mortality and morbidity in India (measured as Disability-Adjusted Life Years), and causes about 40% of all pulmonary disorders, nearly 30% of cataract incidences, and over 20% each of ischemic heart disease, lung cancer and lower respiratory infection.

Significance of the project:

- PMUY has been a revolutionary initiative that has transformed the lives of more than 3.57 crore households spanning across the length and breadth of the country. The initiative is in line with Governments aim to eradicate energy poverty, thereby promoting economic empowerment.

Way ahead:

- The PMUY is a bold and much-needed initiative, but it should be recognised that this is just a first step. The real test of the PMUY and

its successor programmes will be in how they translate the provision of connections to sustained use of LPG or other clean fuels such as electricity or biogas.

- Truly smokeless kitchens can be realized only if the government follows up with measures that go beyond connections to actual usage of LPG. This may require concerted efforts cutting across Ministries beyond petroleum and natural gas and including those of health, rural development and women and child welfare.

24. Delhi To Enforce Emergency Plan

Context:

With the Air Quality Index or AQI moving to the “poor” category, the Central Pollution Control Board has decided to implement an emergency action plan in the National Capital.

- An AQI in the range of 0-50 is considered ‘good’, 51-100 ‘satisfactory’, 101-200 ‘moderate’, 201-300 ‘poor’, 301-400 ‘very poor’ and 401-500 ‘severe’.
- The Supreme Court has empowered the Environment Pollution Control Authority (EPCA) to take various measures to tackle pollution. Under the order, the EPCA has mandated enforcement of Graded Response Action Plan (GRAP) in the city.

Graded Action plan:

- An emergency protocol under the Graded Response Action Plan which involve a series of measures on basis of the Air Quality Index are set to be implemented. When the mark is between moderate and poor category, the burning of garbage will be stopped and pollution control regulations will be enforced.
- If the air quality drops to very poor category, additional measures will be taken including stopping of diesel gensets, enhancing parking fees and increasing frequency of metro and buses.
- For severe and very severe category air quality, additional measures would include frequent mechanised cleaning of roads and sprinkling of water, stopping entry of trucks, stopping construction activities and appointment of task force to take decisions like shutting of schools.

Background:

- Over the last several years, air quality in Delhi begins sliding from October-November as winds slow down and temperature drops. Pollutants like sand particles and smoke get trapped, turning the national capital virtually into a gas chamber.
- The particulate matter in Delhi’s air went off charts last year, pushing up the level of pollutants to 10 times more than Chinese capital Beijing, known as the world’s most polluted city.

About Environment Pollution Control Authority (EPCA):

- EPCA was constituted with the objective of 'protecting and improving' the quality of the environment and 'controlling environmental pollution' in the National Capital Region. The EPCA also assists the apex court in various environment-related matters in the region.
- EPCA is Supreme Court mandated body tasked with taking various measures to tackle air pollution in the National Capital Region. It was notified in 1998 by Environment Ministry under Environment Protection Act, 1986.

Composition:

- Besides the chairman, the EPCA has 14 members, some of whom are the environment secretary of the National Capital Territory of Delhi (NCT), chairperson of the New Delhi Municipal Council, transport commissioner of the NCT, the commissioners of various municipal corporations of Delhi and professors at IIT Delhi and Jawaharlal Nehru University.

Functions:

- To protect and improve quality of environment and prevent and control environmental pollution in National Capital Region.
- To enforce Graded Response Action Plan (GRAP) in NCR as per the pollution levels.

25. Mount Etna**Context:**

The southeast flank of Mount Etna in Sicily is sliding towards the sea at a rate of several centimetres a year.

- It's likely caused by gravity pulling on Etna's lower underwater slopes, far from the summit.
- **Concerns:** The kind of stress that this movement creates inside volcanoes can cause devastating landslides. This means Etna is more susceptible to catastrophic collapse than had previously been realised.

About Mt. Etna:

- Mount Etna is the largest active volcano in Europe and one of the world's most frequently erupting volcanoes. It is also the volcano with the longest record of continuous eruption.
- Located near the east coast of the island of Sicily in Italy, Mount Etna is 10,900 feet (3,329 meters) tall with a base circumference of about 93 miles (150 kilometers).
- The mountain's largest feature is the Valle del Bove (Valley of the Ox), a large horseshoe-shaped caldera on the eastern slope.
- Etna sits on the active fault between the African plate and the Ionian microplate, which are both being subducted together beneath the Eurasian plate.

- In June 2013, it was added to the list of UNESCO World Heritage Sites.
- Due to its history of recent activity and nearby population, Mount Etna has been designated a Decade Volcano by the United Nations.

26. Bihar's 'Shahi Litchi' Gets GI tag

Context:

Bihar's Shahi litchi has got the Geographical Indication (GI) tag and has become an exclusive brand in the national and international market.

- The famous Shahi litchi, which is famous for its sweet, juicy, unique flavour and aroma, is mostly grown in Muzaffarpur and neighbouring districts including East Champaran, Vaishali, Samastipur and Begusarai.
- The GI registration was done in the name of Litchi Growers Association of Bihar, which had applied for the tag.

Significance:

- Bihar produces 40% of the litchi grown in the country on 38% of the area. The GI tag to Shahi litchi will boost up its demand in the market and will minimise the fear of fake and poor quality litchis. The GI tag for the fruit will help and benefit thousands of litchi growers who will gain access to more markets and get better price in the country and abroad.

About GI tag:

- A GI is primarily an agricultural, natural or a manufactured product (handicrafts and industrial goods) originating from a definite geographical territory.

Significance of a GI tag:

- Typically, such a name conveys an assurance of quality and distinctiveness, which is essentially attributable to the place of its origin.

Security:

- Once the GI protection is granted, no other producer can misuse the name to market similar products. It also provides comfort to customers about the authenticity of that product.

Provisions in this regard:

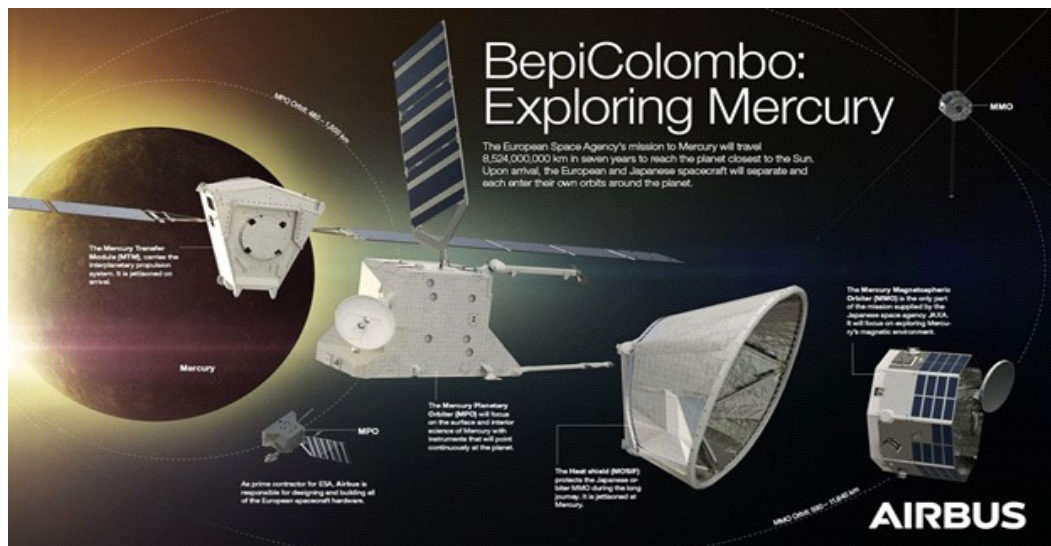
- GI is covered as element of intellectual property rights (IPRs) under Paris Convention for Protection of Industrial Property.
- At international level, GI is governed by WTO's Agreement on Trade-Related Aspects of Intellectual Property Rights (TRIPS).
- In India, Geographical Indications of Goods (Registration and Protection Act), 1999 governs it.

Science & Technology

27. BepiColombo

Context:

European Space Agency's (Esa) first mission to Mercury- BepiColombo, is all set for launch.



- The four-tonne spacecraft will be launched into orbit by Esa's rocket Ariane 5 from the European spaceport at Kourou, French Guiana, on 20 October.
- It will then make a 5.2bn mile (8.5bn km) journey over seven years to reach its destination by 2025.

About BepiColombo:

- BepiColombo is a joint mission between ESA and the Japan Aerospace Exploration Agency (JAXA), executed under ESA leadership.
- **The mission comprises two spacecraft:** the Mercury Planetary Orbiter (MPO) and the Mercury Magnetospheric Orbiter (MMO). The MPO will study the surface and internal composition of the planet, and the MMO will study Mercury's magnetosphere, that is, the region of space around the planet that is influenced by its magnetic field.
- **Need:** The scientific interest in going to Mercury lies in the valuable information that such a mission can provide to enhance our understanding of the planet itself as well as the formation of our Solar System; information which cannot be obtained with observations made from Earth.
- **Challenges:** Europe's space scientists have identified the mission as one of the most challenging long-term planetary projects, because Mercury's proximity to the Sun makes it difficult for a spacecraft to reach the planet and to survive in the harsh environment found there.
- **Significance:** Mercury is a poorly explored planet. So far, only two spacecraft have visited the planet: NASA's Mariner 10, which flew

past three times in 1974–5 and returned the first close-up images of the planet, and NASA's MESSENGER spacecraft, which performed three flybys (two in 2008 and one in 2009) before entering orbit around the planet in March 2011. The information obtained when BepiColombo arrives will throw light not only on the composition and history of Mercury, but also on the history and formation of the inner planets in general, including Earth.

28. Ask Disha

Context:

Indian Railway Catering and Tourism Corporation (IRCTC) has launched Artificial Intelligence (AI) powered chatbot– Ask Disha ((Digital Interaction to Seek Help Anytime) to help its users answer various queries.

About Ask Disha:

- The chatbot is special computer programme designed to simulate conversation with users, especially over the internet.



- The first-of-its-kind initiative by IRCTC is aimed at facilitating accessibility by answering users' queries pertaining to various services offered to railway passengers.

- The chatbot is voice enabled and will support several regional languages in the near future. It will offer greatly improved and intuitive customer support by answering customer

queries pertaining to all aspects of the services that IRCTC provides.

- The essential features of AskDisha include ability to quickly answer to customer queries, ability to provide round-the-clock customer support, ability to multitask, zero waiting time for query to get answered and overall ability to provide customer with stress-free experience and overall customer satisfaction.

29. Self4Society app

Context:

#Self4Society app, developed by MyGov, has been launched by the government to help coordinate volunteer work undertaken by professionals.

About #Self4Society App:

- This platform will help to create better synergies among so many CSR and other initiatives and lead to a much better outcome of the efforts of professionals.

- Companies have observed that a spirit of service and volunteering improves employee satisfaction and reduces employee attrition.
- The app will have incentives, gamification and intra- and inter-company competitions, and social networking.
- The volunteer time for the government's flagship programmes such as Swachh Bharat is expected to increase.

30. Oneer™

In News:

CSIR has developed an affordable Water Disinfection System "Oneer™". The device will go a long way in meeting the requirements of potable water in rural and urban areas.

About "Oneer™":

- Use: It is useful for continuous treatment of water and eliminates all disease causing pathogens such as virus, bacteria, fungi, protozoa and cyst to provide safe drinking water to domestic and communities settings as per National and International standards prescribed for potable water (BIS, WHO etc.).

Significance:

- According to the World Health Organization, "access to safe drinking-water is essential to health, a basic human right and a component of effective policy for health protection".
- However, currently, a large proportion of India's rural community is consuming water that does not meet the WHO drinking water quality standards. And infection through drinking water results in an increase in morbidity and mortality particularly amongst children.
- Oneer developed by CSIR-IITR, will provide access to safe and clean drinking water at a cost of just 2 Paise / Ltr. The Community level model is of 450 LPH capacity which can be scaled up to 5000 to 1 lakh L/day; and is also maintenance and membrane free. The technology will be helpful especially for rural people since it can be solar powered.

31. Galaxy proto-supercluster — Hyperion

Context:

A team of scientists at the European Southern Observatory (ESO) have cited the most massive structure in the early universe known to date. The galaxy proto-supercluster found has been named Hyperion.

- The galaxy has been found using new measurements made by the visible multi-object spectrograph of ESO's Very Large Telescope and pouring over vast arrays of archive data.
- Hyperion's unimaginably enormous mass is estimated to be a million billion times that of our own Sun (which is approximately 1,048 Jupiters, or 333,000 Earths).

- Hyperion is an adolescent in astronomy terms. Its distance from earth means astronomers are viewing it as it was created just over 2 billion years after the Big Bang, which gave rise to the universe about 13.8 billion years ago. The Milky Way galaxy, which hosts our Solar System, is about 13.6 billion years old.
- Understanding Hyperion and how it compares to similar recent structures can give insights into how the universe developed in the past and will evolve into the future, and allows us the opportunity to challenge some models of supercluster formation. Unearthing this cosmic titan helps uncover the history of these large-scale structures.

Significance:

- This is the first time that such a large structure has been identified at such a high redshift, just over two billion years after the Big Bang. Normally, these kinds of structures are known at lower redshifts, which means when the universe has had much more time to evolve and construct such huge things.

About visible multi-object spectrograph:

- The VIMOS, an instrument that measures objects at a distance of billions of light years away, in practice allows experts to see what the early universe was like in the distant cosmic past. The spectrograph is hosted by the Chile-based Very Large Telescope.

About VLT:

- The Very Large Telescope (VLT) is a telescope facility operated by the European Southern Observatory on Cerro Paranal in the Atacama Desert of northern Chile.
- The VLT consists of four individual telescopes, each with a primary mirror 8.2 m across, which are generally used separately but can be used together to achieve very high angular resolution. The four separate optical telescopes are known as Antu, Kueyen, Melipal and Yepun, which are all words for astronomical objects in the Mapuche language.
- The VLT operates at visible and infrared wavelengths. Each individual telescope can detect objects roughly four billion times fainter than can be detected with the naked eye, and when all the telescopes are combined, the facility can achieve an angular resolution of about 0.001 arc-second. This is equivalent to roughly 2 meters resolution at the distance of the Moon.
- The VLT is the most productive ground-based facility for astronomy, with only the Hubble Space Telescope generating more scientific papers among facilities operating at visible wavelengths.

32. China's artificial moon project

Context:

China is in the process of creating an “artificial moon” that would be bright enough to replace the streetlights in the south-western city of Chengdu by 2020.

- Chinese scientists plan to send three artificial moons into space in the next four years, and the moons — made from reflective material like a mirror — are expected to orbit at 500 kilometres above the Earth and light up an area with a diameter of 10 to 80 kilometres.
- The artificial moon will have a reflective coating that can deflect sunlight back to Earth, similar to how the moon shines.
- The illuminated satellite is said to be eight times brighter than the real moon. The satellites' brightness and service time are both adjustable, and the accuracy of the lighting can be controlled within tens of metres.
- The three artificial moons would operate alternately in order to significantly reduce infrastructural electricity consumption, especially during winter. The illuminated satellite is designed to complement the moon at night.
- Lighting from the artificial moon covering 50 square kilometres in Chengdu could save about 1.2 billion yuan (\$240 million) in electricity costs every year. It could also be used to light up areas experiencing power outages caused by natural disasters such as earthquakes.
- The idea for the man-made moon originated from a French artist who imagined hanging a necklace made of mirrors in the sky to light up the streets of Paris at night. Russia attempted to launch a 25-metre "space mirror" but the project was put off in 1999.

33. Dawn Mission

Context:

NASA's Dawn mission is drawing to a close after 11 years of breaking new ground in planetary science, gathering breathtaking imagery, and performing unprecedented feats of spacecraft engineering.

- Dawn's mission was extended several times, outperforming scientists' expectations in its exploration of two planet-like bodies, Ceres and Vesta, that make up 45 percent of the mass of the main asteroid belt. Now the spacecraft is about to run out of a key fuel, hydrazine. When that happens, most likely between mid-September and mid-October, Dawn will lose its ability to communicate with Earth. It will remain in a silent orbit around Ceres for decades.

Dawn mission:

- NASA's Dawn mission was aimed at studying the asteroid Vesta and dwarf planet Ceres, celestial bodies believed to have accreted early in the history of the solar system. The mission characterized the early solar system and the processes that dominated its formation.
- Dawn is the only mission ever to orbit two extraterrestrial targets. It orbited giant asteroid Vesta for 14 months from 2011 to 2012, then continued on to Ceres, where it has been in orbit since March 2015.

Miscellaneous

34. Einstein Prize

Context:

Indian American Professor Abhay Ashtekar has been conferred with prestigious Einstein Prize for numerous and seminal contributions to general relativity, including the theory of black holes, canonical quantum gravity, and quantum cosmology.

About Einstein Prize:

- The Einstein Prize is a biennial prize awarded by the American Physical Society.
- The recipients are chosen for their outstanding accomplishments in the field of gravitational physics.
- The prize carries an award of \$10,000.
- The prize is special because it is the highest honour bestowed by APS in the broad area of gravitational science.
- The first Einstein prize was awarded jointly to Peter Bergmann and John Wheeler, who introduced general relativity to American universities by creating research groups.

35. Man Booker Prize

Context:

Northern Irish writer- Anna Burns has won the 2018 Man Booker Prize for her third full-length novel- "Milkman".

About Man Booker Prize:

- The leading literary award in English, The Man Booker Prize was launched in 1969. It aims to promote the 'finest in fiction' and is awarded each year to the book adjudged as the best novel of the year written in English and published in the United Kingdom.
- The winner of The Man Booker Prize receives £50,000. Sponsored by Man Group, the foundation also awards £2,500 and a designer bound copy of their book to each of the six shortlisted authors. The winner and shortlisted authors are also guaranteed a worldwide readership as well as a dramatic spike in book sales.
- The judges of The Man Booker Prize are chosen from a wide range of disciplines including critics, writers, academics, poets, politicians, actors and 'all with a passion for quality fiction'. Subject to widespread speculation before the official announcement, the prize usually brings the winner a huge boost in sales and profile.

36. Dharma Guardian

Context:

The first edition of this joint military exercise will be held in Mizoram.

- It is a joint military exercise between India and Japan.
- **Aim:** The exercise is aimed at developing mutual understanding and respect between militaries of both countries, as also facilitate in tracking worldwide phenomenon of terrorism.

37. Carnot Prize

Context:

Minister of Railways and Coal will receive the University of Pennsylvania's top prize in energy policy for his leadership in reforming India's power sector through various initiatives.

Carnot Prize:

- The Carnot Prize is intended to honour those leading revolutions in energy policy to further progress and prosperity.
- The ministry is being recognised for directing a fast-track effort to electrify 18,000 villages in remote parts of India, helping bridge the country's vast energy divide.
- The Carnot Prize is named in memory of French scientist Sadi Carnot, who in 1824 published Reflections on the Motive Power of Fire, which is recognised as the first statement of what, is now known as the second law of thermodynamics.
- Carnot recognised that the power of the steam engine would produce a great revolution in human development.

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