

VISION IAS

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CURRENT AFFAIRS

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VISION

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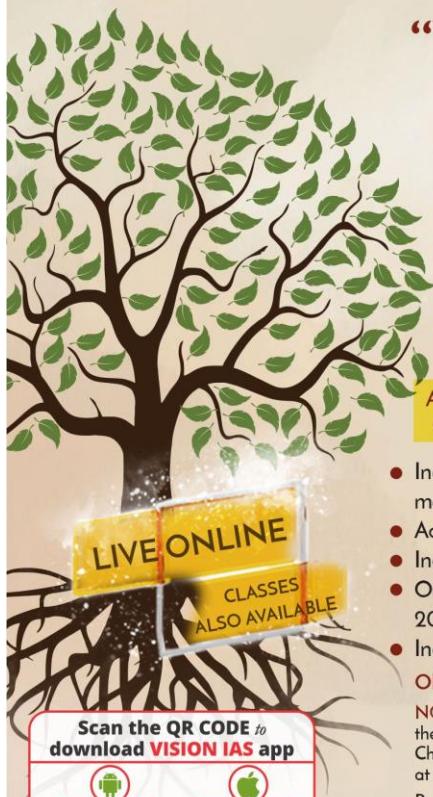
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15 May 9 AM	11 June 1 PM	6 July 13 Apr 9 AM	18 June 5 PM	3 June 15 May	15 May

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1. POLITY

1.1. ELECTORAL BONDS

Why in news?

The Supreme Court of India in its **interim order** has asked all political parties to disclose, the **details of the donations** received by them through **anonymous electoral bonds**, in sealed covers to the Election Commission of India.

Background

- Electoral bond scheme was announced in **Union Budget 2017-18** in an attempt to “**cleanse the system of political funding in the country**.”
- The electoral bonds were introduced by amendments made through the Finance Act 2017 to the **Reserve Bank of India Act 1934**, **Representation of Peoples Act 1951**, **Income Tax Act 1961** and **Companies Act**.
- However, there are certain provisions in the scheme, which raised an objection on **transparency of political funding itself**.
- Some petitioners had moved to the Supreme Court for a plea to stay the Electoral Bonds Scheme.
- The Election Commission also filed an affidavit to the SC on some provisions in the scheme, which can have serious repercussions on political funding in the country.

Petitioner's arguments against the Electoral Bonds Scheme

- Brings Opacity in the Political Funding-** Ordinary citizens are not able to know who is donating how much money to which political party, and the bonds increase the anonymity of political donations-
 - The rules for declaring sources of funding for political parties are outlined in **Section 29C** of the **Representation of the People Act, 1951**. Prior to 2017, the Act said all registered parties had to declare all donations made to them of over Rs.20,000. However, an amendment in finance act has kept electoral bonds out of the purview of this section. Therefore, parties will not have to submit records of electoral bonds received to the Election Commission for scrutiny.
 - Further, political parties are legally bound to submit their income tax returns annually under **Section 13A** of the Income Tax Act, 1961. However, **the electoral bonds have also been exempt from IT Act**. Thus, removing the need to maintain records of names, addresses of all donors.
- Opens up possibility of corporate misuse-** with the removal of the 7.5% cap on the net profits of the last three years of a company, corporate funding has increased manifold, as there is now no limit to how much a company, including loss-making ones, can donate. Hence, companies can be brought into existence by

POLITICAL FUNDING CLEAN-UP



What Is An Electoral Bond

An interest-free financial instrument for making anonymous donations to political parties; resembles a promissory note



Who May Purchase These Bonds

A Citizen of India or a body incorporated in the country



Bond Denominations

₹1,000, ₹10,000, ₹100,000, ₹1 million, ₹10 million; can be purchased from selected branches of SBI



When May Such Bonds Be Bought

Available for purchase for 10 days each in January, April, July, & October



Lifespan

Redeemable in the designated account of a registered political party within 15 days since issuance



Which Political Parties Are Eligible To Receive Donations Through Electoral Bonds?

Political parties who have at least secured 1% votes in the last Lok Sabha or state assembly elections and are registered under Section 29A of the Representation of the People's Act, 1951



Other Details

- Political parties will be required to file returns to the Election Commission of the quantum of money it receives through electoral bonds. Donors will be eligible for tax deduction while political parties will be eligible for exemption, provided returns are filed by the political party.
- SBI is the Sole Authorized Bank by the Government of India for selling Electoral Bonds.
- Electoral Bonds shall not be eligible for Trading on stock exchanges.
- They cannot be used as collateral for loans and are available only in physical form.

unscrupulous elements primarily for routing funds to political parties through anonymous and opaque instruments like electoral bonds.

- **Favors ruling party-** SBI being a government owned bank will hold all the information of the donors which can be favorable to the party in power and also deter certain entities from donating to opposition due to fear of penalization. E.g. the data revealed through the Right to Information shows that State Bank of India issued a whopping **Rs.1, 716 crore** in electoral bonds in just **two months of 2019** and the ruling party has received **94.6% of all the electoral bonds sold in 2017-18**.

Election Commission's arguments against the Electoral Bonds Scheme

- **Does not allow ECI to check violation of provisions in the Representation of the People Act-** as any donation received by a political party through an electoral bond has been taken out of the ambit of reporting under the Contribution Report. E.g. the Representation of the People Act, 1951 prohibits the political parties from taking donations from government companies.
- **Allows unchecked foreign funding-** An amendment to the Foreign Contribution Regulation Act (FCRA) allows political parties to receive funding from foreign companies with a majority stake in Indian companies. It can lead to Indian policies being influenced by foreign companies.

Government's arguments for the Electoral Bonds

- **Limits the use of cash in political funding-** as earlier, massive amounts of political donations were being made in cash, by individuals/corporates, using illicit means of funding and identity of the donors was not known. Hence, the 'system' was wholly opaque and ensured complete anonymity.
- **Curbs black money-** due to the following reasons-
 - Payments made for the issuance of the electoral bonds are accepted only by means of a demand draft, cheque or through the Electronic Clearing System or direct debit to the buyers' account". Hence, no black money can be used for the purchase of these bonds.
 - Buyers of these bonds must comply with KYC requirements, and the beneficiary political party has to disclose the receipt of this money and must account for the same.
 - Limiting the time for which the bond is valid ensures that the bonds do not become a parallel currency.
- **Protects donor from political victimization-** as non-disclosure of the identity of the donor is the core objective of the scheme. Further, the records of the purchaser are always available in the banking channel and may be retrieved as and when required by enforcement agencies.
- **Has sufficient safeguards-** such as donations through bonds received from a domestic company having a majority stake is permitted, subject to its compliance with KYC norms and FEMA guidelines.
- **Eliminate fraudulent political parties-** which are formed on pretext of tax evasion, as there is a stringent clause of eligibility for the political parties in the scheme.

Some measures which can complement Electoral Bonds

- Switch to complete digital transactions.
- Donations above a certain limit be made public to **break the corporate-politico nexus**.
- Political parties should be brought under the ambit of RTI.
- Establish a **national electoral fund** where donors contribute and funds are distributed among different parties.

Conclusion

The electoral bonds scheme is a process in the right direction, however, the points raised by the petitioners and the ECI should be addressed so as to ensure that the intent behind their introduction is achieved completely.

1.2. MODEL CODE OF CONDUCT

Why in news?

In the run up to the Indian General Election for the 17th Lok Sabha, various violations of the Model Code of Conduct have been witnessed.

About Model Code of Conduct (MCC)

- It is a set of guidelines laid down by the Election Commission to **govern the conduct of political parties and candidates** in the run-up to an election. This is in line with **Article 324** of the Constitution, which gives the Election Commission the power to supervise elections to the Parliament and state legislatures.
- It **comes into force the moment an election is announced** and remains in force till the results are declared. This was laid down by the Supreme Court in the **Union of India vs. Harbans Singh Jalal and Others Case**.
- It is intended to provide a **level playing field** for all political parties, to keep the campaign fair and healthy, avoid clashes and conflicts between parties, and ensure peace and order. So, there are guidelines on general conduct, meetings, processions, polling booths, observers, election manifesto of political parties.
- Its main aim is to ensure that the ruling party, either at the Centre or in the states, **does not misuse its official position** to gain an unfair advantage in an election. There are guidelines on conduct of ministers and other authorities in announcing new schemes, using public exchequer for advertisements etc.

Evolution of Model Code of Conduct

- The origins of the MCC lie in the **Assembly elections of Kerala** in 1960, when the State administration prepared a '**Code of Conduct**' for political actors.
- Subsequently, in the Lok Sabha elections in 1962, the ECI circulated the code to all recognised political parties and State governments.
- Implementation of MCC up to 1991 was not up to the mark as it was largely ignored by the political parties who often resorted to corrupt electoral practices such as populist announcements and fielding pliant officials, in lieu of fierce political competition.
- **Implementation of MCC after 1991**
 - The ECI (spearheaded by then **CEC T.N. Sheshan**) used **new means to enforce** the MCC. The ECI rebuked prominent political actors publicly and even postponed elections, thereby re-interpreting the ECI's power to fix election dates.
 - The burgeoning electronic media of the time reported these initiatives with enthusiasm, while candidates were happy to capitalise on the mistakes made by their rivals. Consequently, political actors began to take the MCC seriously.

Contemporary Challenges in implementing Model Code of Conduct

- **Emergence of new forms of electoral malpractices-**
 - **Manipulation through the media-** The misuse of the media is difficult to trace to specific political parties and candidates.
- **Weakened capacity of the ECI to respond to violations of MCC-**
 - **Weak or Delayed Response-** to inappropriate statements by powerful political actors. Consequently, political actors are regaining the confidence to flout the MCC without facing the consequences.
 - **Digital Content-** Most of the [election-related] information flow does not happen via the IT cells of political parties, but through third-party contracts. Even though, the ECI has evolved a self-regulatory social media code for major players, still many platforms such as Telegram and WeChat are becoming increasingly relevant for political mobilization.
 - **Debate over some issues-** such as national security, disaster management. Some political parties alleged that the ruling party has misused such issues. But, the Election Commission has said that these issues do not fall under the ambit of MCC.

Implications of Poll Code Violations

- **Weakens the position of Election Commission-** whereby the credibility and authority of the commission is undermined.
- **Abuse the principle of free and fair elections-** whereby incidents such as use of money power or muscle power, does not allow equal competition between all participants.

Legal Status of Model Code

- The MCC is **not enforceable by law**. However, certain provisions of the MCC may be enforced through invoking corresponding provisions in other statutes such as the **Indian Penal Code, 1860**, **Code of Criminal Procedure, 1973**, and **Representation of the People Act, 1951**.
- The Election Commission has argued against making the MCC legally binding; stating that elections must be completed within a relatively short time (close to 45 days), and judicial proceedings typically take longer.
- On the other hand, in 2013, the Standing Committee on Personnel, Public Grievances, Law and Justice, recommended making the MCC legally binding and the MCC be made a part of the Representation of the People Act, 1951.

- Shifts the narrative from performance to identity- whereby political parties ignore the MCC guidelines against using caste and communal feelings to secure votes.
- Erosion of public trust in Indian democracy- as the promise of free and fair elections is seemingly defeated.

Way Forward

- Need to include people in the MCC- through mobile apps such as ‘cVIGIL’ to enable citizens to report on violation of election code of conduct. If people reject candidates and parties that violate MCC, it will create an inherent pressure on contestants to abide by MCC.
- Fast Track Court for Election Dispute- so that whenever, the ECI takes a punitive action, its final order is obtained as soon as possible.
- Strengthening Election Commission of India- by greater transparency in appointments and removal of the election commissioners, reducing dependency on Central Government for paramilitary forces among others.

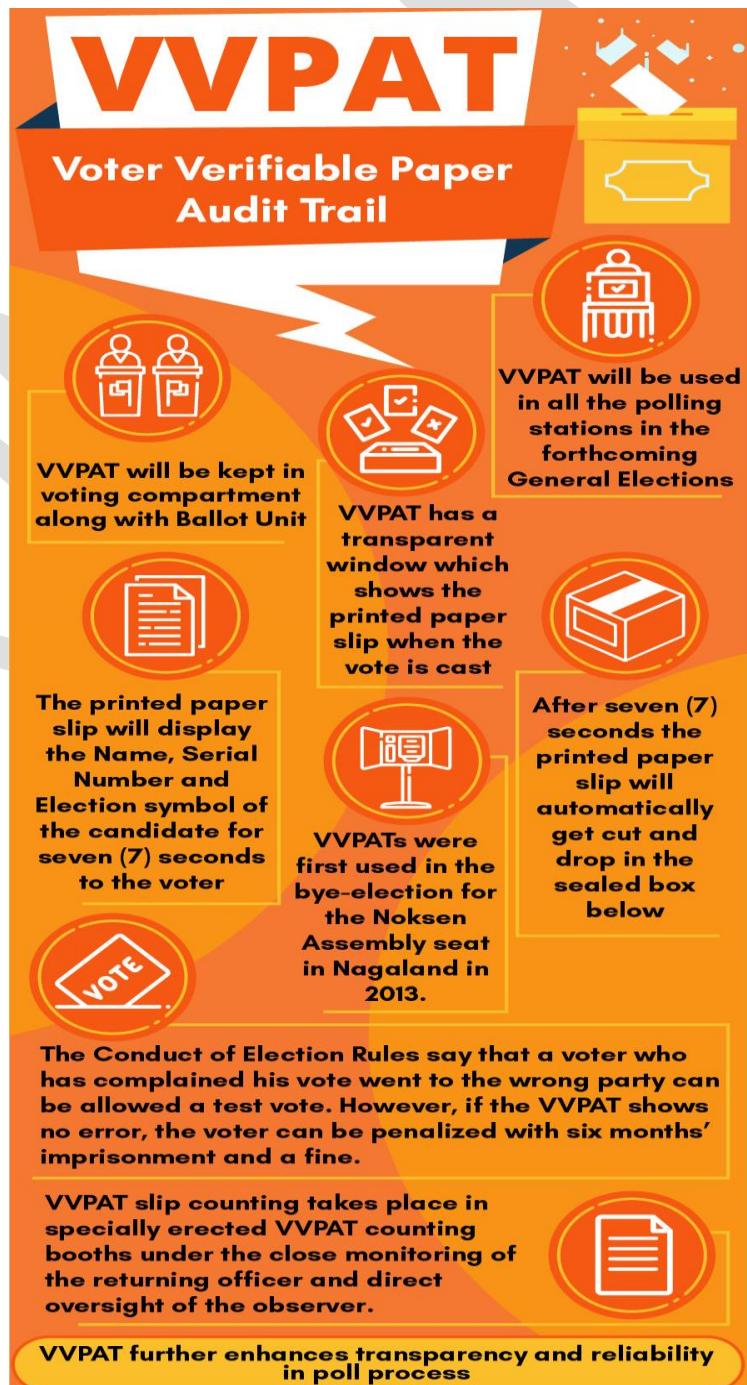
1.3. VOTER VERIFIED PAPER AUDIT TRAIL

Why in news?

The Supreme Court recently increased voter verified paper audit trail (VVPAT) verification to five random Electronic Voting Machines (EVMs) in each Assembly segment/constituency “to ensure the greatest degree of accuracy, satisfaction in election process.”.

More on news

- Earlier, under the ECI guidelines, only the VVPAT slips from one EVM in every Assembly segment/constituency was subjected to physical verification.
- Recently, 21 Opposition parties appealed for VVPAT verification in 50% or 125 polling booths in each constituency due to the glitches observed in the VVPAT machines in various assembly elections.
- However, ECI pointed out various issues in implementation of 50% verification such as:
 - VVPAT counting is a manual job and the **risk of error multiplies** with an increase in human intervention.
 - Increased VVPAT slip counting would require **extensive training and capacity building** of election officials in the field.
 - The **results of elections would be delayed** by six days if the Opposition parties' demand is met.
- A report by the Indian Statistical Institute, said that a sample verification of 479 EVMs and VVPATs out of a total 10.35 lakh machine would lift public confidence to 99.9936%.
 - The increase to 5 EVMS would result in **8.6 times the sample size** recommended in the Indian Statistical Institute report.



1.4. JUDICIAL ACCOUNTABILITY

Why in news?

Recently, there was an allegation of sexual harassment against the Chief Justice of India (CJI) made by a former Supreme Court employee, which has yet again triggered a debate between **judicial independence and judicial accountability**.

Background

- Indian Democracy runs on the principle of '**rule of law**', which implies that '**no one is above the law**'. The Constitution of India gives the role of its **guardian and protector** to the Judiciary of India.
- The Judiciary is the watchdog, which preserves and enforces the fundamental and legal rights against any arbitrary violations.
- However, there have been many areas and instances, where the **actions of judiciary itself have been questioned** on being contrary to this and hence the issue of accountability of the judiciary has sprung up.
- **Accountability** means any action taken by any authority requires **justifiable explanation** for that particular action. All public institutions and functionaries, whatever their role may be or wherever they stand in the hierarchy **have to be accountable** for their actions to the people of India.
- The Constitution follows the **principle of separation of power** where checks and balances exist on every organ's conduct. The two organs of the state of India- The Legislature and the Executive are accountable to the Judiciary and to the people at large. But, the question, which has come up, is, "**to whom is the judiciary accountable?**" and "**who is judging the judges?**"

Areas where Judicial Accountability has been found lacking

- **Judicial Appointments** - The collegium system in India presents a unique system wherein the democratically elected executive and Parliament at large has no say in appointing judges.
- **Removal of Judges**- Impeachment under Article 124 (4) and Article 217 (1) of the Constitution is a long-drawn-out and difficult process along with its political overtone.
- **Conduct of Judges**- where judges have been alleged to have indulged in corruption (Justice Ramaswami Case, Justice Soumitra Sen), misappropriation, sexual harassment, taking post retirement jobs among others.
- **Opacity in the operations of Judiciary**- The judiciary claims that any outside body having disciplinary powers over them who compromise their independence so they have set up an "**in-house mechanism**" investigating corruption.
 - Last year four senior most Supreme Court judges held press conference against the role of Chief Justice of India in allocation of cases.
- **Information asymmetry with Judiciary**- Judiciary has virtually kept itself outside the purview of the **Right of Information Act**. The Supreme Court Rules undermined the RTI in four key ways as they do not provide for-
 - a time frame for furnishing information
 - an appeal mechanism
 - penalties for delays or wrongful refusal of information
 - makes disclosures to citizens contingent upon "good cause shown"
- **Contempt of Court**- Using the powers under the Contempt of Court Act, judiciary has been alleged to silence the rightful critics also.

In-House Mechanism to check Judicial Accountability

- In 1997, the Supreme Court adopted a charter called the '**Restatement of Values of Judicial Life**'.
- Also, other resolutions have been adopted, which require
 - Declaration of assets by every High Court and Supreme Court Judge/Chief Justice
 - Formulation of an in-house procedure to inquire into any allegation of misbehavior or misconduct against them, which is considered fit for inquiry by the Chief Justice of India and some of his senior colleagues.
- In 2002, **Bangalore Principles of Judicial Conduct** were adopted.

Judicial Standards and Accountability Bill, 2010

- It establishes the National Judicial Oversight Committee, the Complaints Scrutiny Panel and an investigation committee. Any person can make a complaint against a judge to the Oversight Committee on grounds of 'misbehaviour'.
- A motion for removal of a judge on grounds of misbehaviour can also be moved in Parliament. Such a motion will be referred for further inquiry to the Oversight Committee.
- The Oversight Committee may issue advisories or warnings to judges, and also recommend their removal to the President.

- **Judicial Overreach-** Judiciary has been praised on its activism towards resolving citizen's grievances, however, in this process some of the decisions have encroached the line of overreach also.

Implications

- **Erosion of public trust in judges and judicial system-** when there are issues of integrity and accountability of Judiciary.
- **Impacts the Independence of Judiciary-** when there is lack of accountability to match it.
- **Against the principles of Natural Justice-** e.g. when the Chief Justice decides the "Master of the Rolls" and himself/herself is a party in any case.

Steps taken so far

- Contempt of Court (Amendment) Bill, 2003 was introduced.
- Judicial Standards and Accountability Bill, 2010 was introduced.
- Unanimous passing of the **National Judicial Appointments Commission Act** by the Parliament and state legislatures, which was struck down by the Judiciary.
- Draft **Memorandum of Procedure, 2016** is been discussed.

Measures which can be taken

- **Bringing a new Judicial standards and accountability bill** to establish a set of legally enforceable standards to uphold the dignity of superior judiciary and establish a new architecture to process the public complaints leveled against the judges.
- A more **formal and comprehensive Code of Conduct for Judges** should be put in place, which is **enforceable by law**.
- **The Contempt of Court Act** could be amended with following provisions-
 - Cases of contempt should not be tried by courts but by an independent commission of concerned district.
 - The Act should be amended to remove words, 'scandalizing the court or lowering the authority of the court' from the definition of criminal contempt.
 - However, there must be stringent punishment against its misuse on false and malicious allegations made against honest judges.
- **A two-level judicial discipline model** with first level as a disciplinary system that can reprimand, fine or suspend judges for misdemeanors along with providing them some limited measures of immunity; and, second level as a system of removal of judges for serious misconduct, including corruption must be established.
- **Increasing the transparency in public hearing in the courtrooms-** Last year, the Supreme Court approved the live-streaming of court proceedings of cases of constitutional importance. This provision could be extended to the other cases and High Courts also.
- **Independent judicial Lokpal** may be set up with power to take up complaints and initiate action against judges should be set up to ensure accountability of the judiciary. It should be independent from both the judiciary and the government.

1.5. LATERAL ENTRY

Why in news?

The Union Public Service Commission (UPSC) has selected **nine professionals** to work in the capacity of **joint secretaries** in the Government of India.

Background

- Earlier, the **Department of Personnel and Training (DoPT)** had invited applications for **10 joint secretary-level posts** to be hired on a **short-term contract** for **three to five years** depending upon the performance.

Important Features of Draft Memorandum of Procedure (MoP), 2016

- Include "merit and integrity" as "prime criteria" for appointment of judges to the higher judiciary.
- **Performance Appraisal for promotion as chief justice of a high court:** by evaluation of judgments delivered by a high court judge during the last five years and initiatives undertaken for improvement of judicial administration.
- **Setting up a permanent secretariat** in Supreme Court for maintaining records of high court judges, scheduling meetings of the Collegium, receiving recommendations as well as complaints in matters related to appointments.

- Now, after the UPSC has recommended the candidates, their appointment has to be cleared by the **Election Commission of India** (EC) and the next government.
- Lateral Entry** refers to the direct induction of **domain experts** at the middle or senior levels of administrative hierarchy, rather than only appointing regular recruits through promotion.
 - The debate of **generalists vs. specialists** has been an old one in the discussions of governance reforms.
 - Various professionals, commissions and political commentators have prescribed **Lateral Entry**.
 - Earlier in India, experts have been brought by the Government of India, at **specific posts** such as the **Reserve Bank of India, Chief Economic Advisor, NITI Aayog** among others. But till now it has not become an **institutionalised mechanism of recruitment**.

Need of Lateral Entry

- Bring new dimensions and fresh talent in Policy Making-** It is essential to have people with specialized skills and domain expertise in important positions as policy making is becoming complex in nature.
 - The IAS officers see the government only from within, lateral entry would enable government to understand the impact of its policies on stakeholders — the private sector, the non-government sector and the larger public.
 - First ARC had pointed out the need for specialization as far back as in 1965. The Surinder Nath Committee and the Hota Committee followed suit in 2003 and 2004, respectively, as did the second ARC.
- Increase in efficiency and governance-**
 - Career progression in the IAS is almost automatic which could put officers in comfort zone. Lateral entrants could also induce competition within the system.
 - NITI Aayog, in its Three-Year Action Agenda for 2017-2020 had said that sector specialists be inducted into the system through lateral entry as that would “bring competition to the established career bureaucracy”.
- Increasing complexity in governance-** requires specialists and domain expertise, due to emergence of new issues like globalisation, digitalisation of governance, financial frauds, cybercrime, organized crime, terrorism, climate-change among others.
- Fill the vacancy gap of officers:** According to a report by Ministry of Personnel, Public Grievances and Pensions there is a shortage of nearly 1,500 IAS officers in the country. The Baswan Committee (2016) had also supported lateral entry considering the shortage of officers.
- Will help widen the talent pool for appointment-** Recruitment of IAS officers at very young age makes it difficult to test potential administrative and judgment capabilities. Some who are potentially good administrators fail to make it, and some who do make it, fall short of the requirements.

Challenges faced after Lateral Entry

- Scope of utility-** i.e. how far the government can leverage the expertise of entrants. Much will depend on how far the political executive is willing to facilitate the functioning of these external experts and whether an enabling environment is created for utilizing their full potential.
- Difficult to ensure responsibility and accountability-** for the decisions taken by the private people during their service, especially given the **short tenures** of 3 to 5 years.
- Lack of long-term stakes:** The advantage with the current civil service is that policy makers have long-term interests in government.
- Lack of field experience-** Officers who will join might score on domain knowledge, but they may fall short on the experience of working in the “field”.
- May face resistance from the Bureaucracy-**
 - Lack of cooperation-** as existing officials might resist functioning with **outsiders** and inevitable tensions between **generalists and specialists** may surface.
 - Difficulty in adjusting to the bureaucratic work culture-** including manners of addressing each other, speed of working, knowledge of rules, punctuality among others.
 - May demotivate them the existing officials-** as they won’t have reasonable assurance of reaching top-level managerial positions from now on. By suggesting a contract-based system for positions of joint secretary and above, the signal would be sent out that only mid-career positions would be within reach in about 15-18 years of service and there would be considerable uncertainty about career progression thereafter.

- Issue of Reservation-** It is unclear whether there would be reservation for recruitment through Lateral Entry or not.

Way Forward

- Need to learn from earlier experiences:** The past experience of inducting private-sector managers to run public-sector enterprises has not been particularly satisfactory. For e.g. Air India, Indian Airlines etc.
- Move towards longer tenures of lateral entrants-** to allow them sufficient time to settle, learn and implement their approach, blueprint for work.
- Various reforms apart from institutionalised lateral entry are the need of the moment such as:
 - Set up public administration universities for aspiring and serving civil servants:** It can create a large pool of aspiring civil servants as well as enable serving bureaucrats to attain deep knowledge of the country's political economy, increased domain expertise and improved managerial skills.
 - Deputation to Private Sector-** A Parliamentary panel has recommended deputation of IAS and IPS officers in private sector to bring in domain expertise and competition.
 - Institutionalize goal setting and tracking for each department-** Each Ministry and government agency should set outcome-based goals with a clear timeline.



फाउंडेशन कोर्स सामान्य अध्ययन

प्रारंभिक एवं मुख्य परीक्षा 2020

इनोवेटिव क्लासरूम प्रोग्राम के घटक

- प्रारंभिक परीक्षा, मुख्य परीक्षा और निबंध के लिए महत्वपूर्ण सभी टॉपिक का विस्तृत कवरेज
- मौलिक अवधारणाओं की समझ के विकास एवं विश्लेषणात्मक क्षमता निर्माण पर विशेष ध्यान
- एनीमेशन, पॉवर प्पाइंट, वीडियो जैसी तकनीकी सुविधाओं का प्रयोग
- अंतर - विषयक समझ विकसित करने का प्रयास
- योजनाबद्ध तैयारी हेतु करेंट ओरिएंटेड अप्रोच
- नियमित क्लास टेस्ट एवं व्यक्तिगत मूल्यांकन
- सीसैट कक्षाएं
- PT 365 कक्षाएं
- MAINS 365 कक्षाएं
- PT टेस्ट सीरीज
- मुख्य परीक्षा टेस्ट सीरीज
- निबंध टेस्ट सीरीज
- सीसैट टेस्ट सीरीज
- निबंध लेखन - शैली की कक्षाएं
- करेंट अफेयर्स मैगजीन

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2. INTERNATIONAL RELATIONS

2.1. INDO-PACIFIC REGIONAL COOPERATION

Why in news?

Recently, the Ministry of External Affairs has setup a dedicated **Indo-Pacific division** for the matters related to the **Indo-Pacific**.

Background

The “**Indo-Pacific**” idea was originally conceived in 2006- 07. The term ‘Indo-Pacific’ combines the **Indian Ocean Region** (IOR) and the **Western Pacific Region** (WP) – inclusive of the contiguous seas off East Asia and Southeast Asia – into a **singular regional construct**.

Significance of the Indo-Pacific for India

- **Greater Role in the Region-** This concept is a shift from the **Asia-Pacific** (included North-east Asia, South-east Asia and Oceania), where India did not have a major role to play. The Asia-Pacific Economic Cooperation (APEC) launched in 1989 did not include India, as did the Asia-Europe Meeting (ASEM) launched in 1996, though India was admitted into ASEM in 2006. India still remains outside APEC despite stated US support for its inclusion. However, **India is a key player in the Indo-Pacific region.**
- **Play Role of a Net Security Provider-** where India is expected to assume the responsibility for stability in the region by following **capacity building, military diplomacy, military assistance and direct deployment.**
- **Help achieve Economic Potential-** India is targeting a sustained 7.5-8% economic growth and aims to be a \$5 trillion economy by 2025. The Indo-Pacific can aid this as there is-
 - **Presence of natural resources-** like oil and hydrocarbons in South China sea, which can help India diversify its import basket.
 - **Presence of high market potential-** for Indian exports such as engineering services, ICT services etc.
 - **Development of North Eastern States-** that can become a gateway for India to integrate with this region.
 - **Integration of Blue Economy Aspirations-** where, ocean ecosystems bring economic and social benefits that are efficient, equitable and sustainable for the entire region.
- **Ensure Freedom of Navigation-** as the region includes some vital trade routes and world’s vital choke points for global commerce, including the **Straits of Malacca**. Around 95% of India’s foreign trade comes by the Indian Ocean.
- **Develop a Security Architecture-** as there are issues like territorial and water disputes between countries, piracy concerns, North Korean nuclear capability and greater militarization in the region.
- **Containment of China-** In the backdrop of China’s aggressive expansionists tendencies including **Belt and Road Initiative, String Of Pearls Theory**, Indo-Pacific presents an opportunity to capitalise on China’s key strategic vulnerability, viz., its energy lifelines transiting the Indian Ocean and to showcase Indian Navy’s capability to moderate China’s behaviour, thereby dissuading its future aggressiveness.
- **Help achieve Strategic Objectives-**
 - **Gives an extension to India’s ‘Act East Policy’-**
 - **Entry in multilateral groupings-** such as Nuclear Supplier’s Group and permanent seat in UN Security Council.

India's Vision for Indo-Pacific

In the **Shangri La Dialogue**, India embraced the concept of Indo-Pacific and highlighted following points-

- It stands for a free, open, inclusive region, which embraces us all in a common pursuit of progress and prosperity. It includes all nations in this geography as also others beyond who have a stake in it.
- Southeast Asia is at its Centre. And ASEAN central to its future.
- Evolve, through dialogue, a common rules-based order for the region. These rules and norms should be based on the consent of all, not on the power of the few.
- Rather than growing protectionism, India seeks for a level playing field for all. India stands for open and stable international trade regime.
- Connectivity is vital and India is doing its part, by itself and in partnership with others like Japan – in South Asia and Southeast Asia, in the Indian Ocean, Africa, West Asia and beyond.

India's view can be summarized into five S in Hindi: **Samman** (respect); **Samvad** (dialogue); **Sahyog** (cooperation), **Shanti** (peace), and **Samridhi** (prosperity).

- **Create alliances with smaller powers-** as it would entail continued engagement with China while simultaneously developing strong economic and security alliances in East and South East Asia and across the Indian Ocean region
- **Increasing role of ports-** where different countries are trying to setup their bases in different ports of the region. E.g. India has secured access to Duqm port in Oman for military use and develop the Agalega Island in Mauritius. The Indian Navy has secured a logistics facility in Singapore that will allow it to refuel and rearm and has similar facilities in Vietnam.

Indian Initiatives

- **Defence Cooperation** such as Joint defence exercises like Malabar, RIMPAC; **inter-operability** where countries can use each other's military bases.
- **FIPIC**- Forum for India- Pacific Islands cooperation.
- **Asia-Africa Growth Corridor**- an economic cooperation agreement between the governments of India, Japan and multiple African countries.
- **SAGAR Approach**- Security and Growth for All in the Region.
- **Project Mausam**: to explore the multi-faceted Indian Ocean 'world'-collating archaeological and historical research.
- **Indo-Pacific Regional Dialogue**.

Benefits of a separate Indo-Pacific Wing

- **Bring Unified approach-** Previously, there were separate desks for ASEAN region, Indian Ocean region which compartmentalized the approach. Hence, when the rules are becoming clearer and the idea of Indo-Pacific has crystalized, this unified division will bring all issues related to it under one umbrella for greater cohesion and focus.
- **Improved Policy Making-** MEA's territorial divisions are crucial for policy making. It will help in accelerating India's preparedness and drafts related to Indo-Pacific region.
- **Help in easy coordination-** With other countries re-orienting their approach towards Indo-Pacific, such a division in India will allow other countries to coordinate easily with a **dedicated division**.
- **Give leadership to this area-** as a separate Joint Secretary would head the division, which would be crucial to give a coherent architecture to the policy.

Related News

Indo-Pacific Regional Dialogue (IPRD)

- The second edition of **Indo-Pacific Regional Dialogue (IPRD)** was held recently in New Delhi
- The Indian Navy launched this apex level conference in 2018, in recognition towards the importance of Indo-Pacific for the region.
- It is organised by the **National Maritime Foundation** as the Navy's Knowledge Partner.
- The permanent theme of this annual dialogue is a review of India's opportunities and challenges in the Indo-Pacific region.
- The 2018 edition sought to highlight the opportunities that lay before India's maritime policy-shapers, policy-makers, and, the practitioners of the country's maritime policies.
- **Themes of 2019 Dialogue**
 - Practical solutions for achieving cohesion in the region through maritime connectivity.
 - Measures to attain and maintain a free-and-open Indo-Pacific.
 - A regional approach to the region's transition from a 'Brown' to a 'Blue' economy.
 - Opportunities and challenges arising from the maritime impact of 'Industry 4.0'.
 - How the twin conceptualizations of 'SAGAR' and 'SAGARMALA' might best be made mutually reinforcing on a regional level.

Efforts taken by other countries towards Indo-Pacific

- **Quad-plus-** where India, Japan, Australia, U.S. and countries of ASEAN have come forward cooperate in the region.
- **Australia-** In 2013, Australia released its Defence White Paper making it first government articulation of Indo-Pacific and endorsing India's centrality in the Indo Pacific construct.
- **USA-**
 - It recently renamed its strategically important Pacific Command (PACOM) as the U.S. IndoPacific Command, indicating that for U.S. government, East Asia and the Indian Ocean Region are gradually becoming a single competitive space and India is a key partner in its strategic planning.
 - Even 2018 National Defence Strategy of US acknowledges Pacific challenges and signals America's resolve and lasting commitment to the Indo-Pacific.
- **Japan's Free and Open Indo-Pacific Strategy** rests on "two oceans" — Indian and Pacific — and "two continents" — Africa and Asia.
- **Indonesia-** has stressed on the cooperation in an open, transparent and inclusive dialogue.

- **Capitalize on the Indian Diaspora in this region-** India has a considerable diaspora presence in Australia, New Caledonia, Fiji, and New Zealand, which provide an open conduit for information exchanges between the Southwestern Pacific neighbors and India.

Challenges

- **Need to build capacity-** India wants to stop Indo-Pacific from turning into a Chinese sphere of influence, but it doesn't have **sufficient resources to do so**. Neither does India have adequate economic resources to provide credible alternatives to China's Belt and Road Initiative nor does it have sufficient diplomatic capacity to meaningfully engage with all stakeholders at the same time like US and Russia. China's aggression and **debt trap diplomacy**, which impinge sovereignty, is going to test Indian diplomacy.
- **Seamless Connectivity-** between the countries in the region remains to be a concern.
- **Role of North- East States-** until they are developed, India's role may not be utilized to the maximum extent possible.
- **Heterogeneity in the region-** with different countries in terms of sizes, ethnicities, aspirations, it becomes difficult to obtain a cohesive approach.
- **De-globalization-** The western world has been hit by a spate of protectionism, which creates hurdles to such cooperation on issues like tariffs, oil import etc for the common Indo-Pacific region.

Way Forward

- **India's entry into APEC-** should be accelerated and done as soon as possible.
- **Development of infrastructure investment initiatives-** to develop connectivity and inter-operability between the regions to encourage economic trade among others.
- **Increase the diplomatic coordination sphere-** from the current Quad countries to the larger region, so as to build larger consensus on the Indo-Pacific common concerns.
- The emergence of the Indo-Pacific as a geo-strategic concept is a welcome development. However, it needs further diplomatic movement and there needs to be greater clarity on economic issues.

2.2. INDIA'S DEVELOPMENT PARTNERSHIP

Why in news?

India's development partnership assistance, extended to countries through concessional loans, has more than doubled in the past five years.

Background

- With the achievement of independence, Indian Foreign Policy was guided by the principles of **Panchsheel** and **South-South Cooperation**. India, despite being a poor country, with limited resources, displayed an internationalist responsibility to share its modest resources and capabilities with other developing countries.
- It was believed that India could share its experience in various domains and could also learn from the experience of other developing countries. India was itself a receiver of **Overseas Development Assistance** of major multilateral organisations, but did not see any contradiction in a receiver of aid and also share its modest capacities with other countries.
- India thus started its **development partnership** with other nations, covering development, humanitarian and technical assistance to countries in different parts of the world.
- It is being implemented by various ministries and institutions with the Ministry of External Affairs (MEA) as the leading ministry.

Evolution of India's Development Partnership	
Year	Programme
1949	Cultural Fellowships Established
1954	Indian Aid Mission (IAM)
1964	First Agreement for Periodic Review of development projects
1961	Economic and Coordination Division (ECD) in the Ministry of External Affairs
1964	Indian Technical and Economic Cooperation Programme (ITEC)
1994	Special Volunteers Programme (SPV)
2003	India Development Initiative (IDI)
2004	India Development and Economic Assistance Scheme (IDEAS)
2005	Development Partnership Division
2007	India International Development Cooperation Agency (IIDCA)
2012	Development Partnership Administration (DPA)

Snapshot of India's Development Assistance

- **Training and Capacity Building-** During 2017-18, 10,918 civilian training slots were offered under ITEC Programme to 161 partner countries in various areas such as Agriculture, Food and Fertilizers; Banking, Finance, Education etc. e.g. 150 bureaucrats from Ethiopia are receiving Indian training.
- **Line of Credits-** From 2005-06 to January 2019, 274 LOCs aggregating to **US\$ 26.79 billion** have been extended to 63 countries in various sectors.
- **Infrastructural Development-** some of the prominent ones being-
 - **Afghanistan-** Afghan Parliament, Salma Dam, Zaranj- Delaram highway project.
 - **Sri Lanka-** Refurbishment of the southern railway and from Colombo to Matara.
 - **Bhutan-** Hydropower projects like Punatsangchhu-I, Kholongchhu.
 - **Myanmar-** India-Myanmar friendship road, upgradation of Sittwe Port.
- **Deputation of Indian Experts-** As on November 2017, forty-nine experts in various fields were on deputation to partner countries in areas of Information and Communication Technology (I&CT), Coconut experts, English teachers and Ayurveda.
- **Study tours-** are undertaken at the specific request of ITEC partner countries.
- **Providing equipment-** like Dornier aircraft to Seychelles, helicopter to Maldives.
- **Humanitarian assistance-** like food items to Lesotho, Namibia; medical supplies to Zambia, Syria; building of houses in Nepal, Sri Lanka; NCERT books to Tanzania etc.
- **Aid for Disaster Relief-** like to Nepal after earthquake, even to Pakistan in 2010 when it faced floods.
- **Small Development Projects-** It is about low budget projects, which are demand driven and have participation of local population of that country. The Government of India has committed to various projects in countries like Afghanistan, Nepal, Bhutan, Suriname, Papua New Guinea etc.

Successes of India's Development Partnership

- **Transformed into a foreign aid donor nation-** In the financial year 2015-16 India gave Rs. 7719.65 crores as aid whereas it received Rs. 2,144.77 crore in aid from foreign countries and global banks. India ranks above 11 of the 28 OECD donors (Organisation for Economic Co-operation and Development) and is one of the largest development partners in certain regions.
- **Commitment to Neighbourhood First-** Most of India's foreign aid over the past decade has been directed towards its neighbours. An analysis says that 84% of this \$1.6 billion Indian foreign aid is to be directed towards the South Asia, with Bhutan being allotted the largest share of 63% (\$981 million). This is in consonance with India's aspiring status as a regional power.
- **African Outreach-** where India has contributed in the following ways-
 - **Pan-African E-Network Project:** In 2004, India announced an initiative to bridge the digital divide and accelerate development on the African continent.
 - **TEAM-9 Initiative:** The Techno-Economic Approach for Africa-India Movement (TEAM-9), is a credit facility with a volume of 500m US\$ launched in 2004 for eight African countries.
 - **Duty Free Tariff Preference Scheme** for Least Developed Countries.
 - **Aid to Africa budget** of the Ministry of External Affairs of India.

Indian Technical and Economic Cooperation (ITEC) Programme

- It was instituted by a decision of the Indian Cabinet on 15 September 1964 as a bilateral programme of assistance of the Government of India.
- It is a demand-driven, response-oriented programme that focuses on addressing the needs of developing countries through innovative technological cooperation between India and the partnering nation.
- Under ITEC and its sister programme SCAAP (Special Commonwealth African Assistance Programme), 161 countries are invited to share in the Indian developmental experience acquired over six decades of India's existence as a free nation.

Development Partnership Administration (DPA)

- It is housed within the Ministry of External Affairs and is responsible for the overall management, coordination and administration of India's development partnerships.
- It has three Divisions (DPA - I, DPA - II and DPA - III).
- DPA I tracks grant projects in Africa and EXIM Bank-backed LoCs.
- DPA II manages capacity building and training programmes, along with grant assistance in Asia and Latin America, and humanitarian and disaster relief programmes.
- DPA III deals with the implementation of grant assistance projects in Afghanistan, Myanmar, Nepal and Sri Lanka.

- **Rise of India's Soft Power-** In the AidData's, **Listening to Leaders 2018 report**, India rose to 24th position on a ranking of the most influential development partners. India also outperformed China on the 2017 helpfulness ranking.

Challenges faced

- **Lack of funds with Ministry of External Affairs-** The level of budgetary allocation towards the MEA has been criticized by several sources, including a parliamentary panel. Its corpus is smaller than that of Singapore and 2016-17 Union Budget committed less towards the Ministry than in the previous year.
- **Issues with the partner country-** including delays in statutory approvals and land acquisition, local protests (by environmentalists, vested interests and others), lack of necessary infrastructure and changes in the scope of the work.
- **Competition from China-** where China overtakes India in **capacity, finances** and military aid. E.g. to secure the oil fields in Africa. Also, India lags behind China in terms of **project completion and following timelines** as highlighted by the nations who are a part of the Belt and Road Initiative.
- **Lack of Global Linkages-** such as with China and other partners in African countries.

Significance

- **India characterizes such assistance as “development cooperation” and not foreign aid-** Unlike ODA, India does not posit a donor-recipient relationship; it sees assistance as a reflection of a mutually beneficial partnership. It is true that in recent years, the scale of such development cooperation has expanded, while ODA levels have either remained static or even declined.
- India's development cooperation is based on the **priorities set by the partner country**, with projects determined on the basis of friendly consultations.
- **Acceptance of Responsibility-** In keeping with India's growing stature in international affairs, we must willingly assume greater responsibility in promoting development in other developing countries.
- **Countering China-** in its relentless efforts to compete with India for power and influence in South Asia.

Conclusion

- India is yet to develop robust institutions and networks to manage this new role, to be able to direct and deliver its development assistance and its function in global institutions in the manner that meets its own strategic interests and contributes to a sustainable global development agenda.
- A cue could be taken from the **German Development Assistance Programme**, which has a well laid out list of objectives under the **Coalition Treaty – ‘Shaping Germany’s Future’**.
- India is a key actor in this new global development landscape for not only the money it will contribute but also its influence in shaping future global development conversations and forging new southern alliances.

2.3. BELT AND ROAD INITIATIVE

Why in news?

The second **Belt and Road Forum (BRF)** was recently held in Beijing, two years after first forum was held in May 2017.

About Belt and Road Initiative (BRI)

- The BRI announced in 2013, is made up of a “**belt**” of overland routes and a maritime “**road**”, which aims to connect Asia, Europe and Africa.
- The **Belt** refers to the **Silk Road Economic Belt** which comprises overland routes: connecting China, Central Asia, Russia and Europe.
- The **Road** refers to the **21st Century Maritime Silk Road** designed to provide an impetus to trade from China to Europe through the South China Sea and the Indian Ocean, and from China through the South China Sea towards the South Pacific.

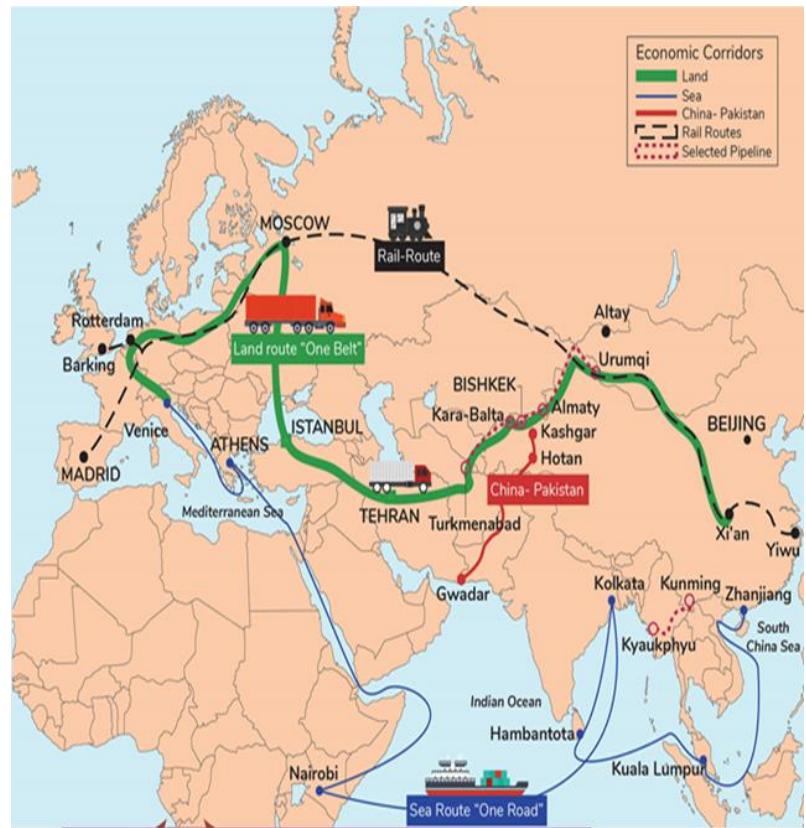
Importance of BRI

- In the wake of the global slowdown, BRI offers a new model of development to China to maintain its economic growth. OBOR envisions **building networks of roadways, railways, maritime ports, power grids, oil and gas pipelines**, associated infrastructure projects which helps Chinese economy.

- BRI has **domestic and international dimension**: as it visualises a shift from developed markets in the west to developing economies in Asia, Africa and a shift in China's development strategy concentrating on provinces in central and western China instead of the developed east coast region.
- **Strategically important** as China utilises its economic clout to build its soft power.

Criticism and Issues with BRI

- **Debt-trap diplomacy** of China where BRI projects are pushing recipient countries into indebtedness and do not transfer skills or technology. For instance, **Hambantota** port, where Sri Lanka was forced to lease the port to China for 99 years. Also, there has been rethinking of projects in Malaysia, Maldives, Ethiopia and even in Pakistan.
- **BRI represents political and economic ambitions of China** making countries like the US, Japan, Germany, Russia, and Australia unhappy about the impact of Beijing's moves on their own economic and political interests.
- **China-Pakistan Economic Corridor (CPEC)**, an important component of BRI, passes through Pakistan-Occupied Kashmir, is the main reason for India signaling its displeasure over BRI and not participating in both the BRFs.
- Other concerns raised include:
 - operational problems
 - lack of information transparency
 - lack of evaluation on the impact of regional social culture
 - over-expansion of the scope of the types of BRI projects,
 - environmental concerns stemming from China's infrastructure buildup



Significance of the Second Belt and Road Forum for International Cooperation (BRF)

- It saw China deliberately seeking to **recalibrate how it is approaching the BRI** amid lingering concerns and challenges.
- In his remarks, Chinese President Xi Jinping not only talked about the progress made under the initiative but also addressed some of the concerns about the BRI, including **exclusivity, sustainability, and standards**.
- It saw the showcasing of China's efforts to address concerns with the unveiling of new initiatives - Chinese finance ministry's new **Debt Sustainability Framework**.
- However, India has boycotted both the BRFs citing territorial sovereignty and other reasons.

Why India should join BRI?

- **India as a participant of Asian era:** Projected as **Project of the century**, BRI signals the political end of the old order where the G7 shaped the economic agenda. BRI involves 126 countries and 29 international organizations covering half of world's population, and **India may be isolated from this new economic order**.
- **Shaping global economic rules:** BRI is evolving standards of multilateralism, including linkages with the United Nations SDGs. The IMF described it as a "**very important contribution**" to the global economy and is collaborating with the Chinese authorities on sharing the best international practices, regarding fiscal sustainability and capacity building. Being part of it, India can also shape new economic global rules.
- **A platform for voicing Indian concerns:** Italy, a member of the G7, also joined BRI, and Japan also sent special envoy, despite its reservations over project. India could also have **raised concerns by joining the BRF**.
- India should **provide alternatives and solutions**- rather than merely criticizing the project. India should improve its implementation performance so as to provide a viable option to other countries.

Why India is boycotting BRI?

- CPEC violates India's sovereignty as it passes through the part of the Pakistan-occupied Kashmir that belongs to India and no country can accept a project that ignores its core concerns on sovereignty and territorial integrity.
- India also raised concerns regarding unsustainable debt trap, environmental concerns, and transparency in assessment of project costs, and skill and technology transfer to help long term running and maintenance of the assets created by local communities.
- India is too big to be isolated and India's continued objection will make China to consider its core concerns.

Way forward

- India should highlight its territorial concerns to China and seek appropriate response recognising India's sovereignty.
- India should give a South Asian character to the two BRI corridors on India's western and eastern flanks, by linking them with plans for connectivity in the ASEAN and SAARC region.
- India can cooperate with like-minded countries like Japan, US, Australia to provide alternatives to BRI, e.g. Asia-Africa Growth Corridor etc.

2.4. US SANCTIONS ON IRAN

Why in news?

India is being forced to stop importing crude oil from Iran after the United States ended sanction waivers, known as "Significant Reduction Exceptions" on countries' importing oil from Tehran.

Background

- USA had decided to withdraw from 2015 Joint Comprehensive Plan of Action (JCPOA), with Iran and reinstate sanctions upon it because it was alleged that Iran was placing restrictions on the work of the inspectors of the International Atomic Energy Agency (IAEA).
 - Iran has retaliated by stating that Iran would not abide by the JCPOA. It has given a 60-day time-line to the EU-3 and other parties to the nuclear deal for restoring oil and banking channels.
 - As part of the plan, Iran was required to sell its surplus enriched uranium abroad, rather than store it inside the country.
- The US had granted waivers, known as "Significant Reduction Exceptions" that allowed India and seven other countries to continue importing reduced quantity of Iranian oil for six months ending May 1, 2019. Any imports would have triggered secondary sanction from US.
- As a result, Indian refiners have almost halved their Iranian oil purchases since November, when the sanctions came into effect. India's oil imports from Iran fell about 57 per cent year-on-year in April.

Related news

- The United States officially designated Iran's elite Islamic Revolutionary Guard Corps (IRGC) as a foreign terrorist organization.
- The action marks the first time the United States has formally labelled another nation's military a terrorist group.

Implications for India

- Impact on Energy Security- India imports about 10% of its oil needs from Iran, which is bound to take a hit.
- Negative impact on the economy-
 - Rising inflation- Iran is the third-largest oil producer in the Organization of the Petroleum Exporting Countries. Now Iran's supplies may fall by between 200,000 bpd and 1 million bpd. The price of oil has already shot up above the \$70 mark in April, 2019.
 - Widening Current Account Deficit- given that the value of imports goes up with crude oil. It will further have effect on the value of Rupee, which may fall further.
 - Impact on Capital Markets- Indian benchmark indices slid by around 1.3%, as investors rushed to sell shares on concerns that rising oil prices could stoke inflation and adversely affect already repressed consumption.
- Strategic Autonomy- India envisages to assert it and balance the ties with both US and Iran. However, this seems to be eroding in favor of the US.

- **Loss of favorable oil import-** the substitute crude suppliers — Saudi Arabia, Kuwait, Iraq, Nigeria and the US — do not offer the attractive options that Iran does, including 60-day credit, free insurance and buying oil using Indian Rupee rather than spending crucial FOREX reserves.
- **Probable impact on other strategic initiatives with Iran-** such as International North South Transport Corridor (INSTC), Chabahar port development.

Challenges faced by India

- **India has long been a proponent of a “rules-based order”-** that depends on **multilateral consensus** and an adherence to commitments made by countries on the international stage and must stick to them despite adversarial behavior of some countries. Last year, the Minister of External Affairs had taken a stand that, India **would recognise only UN sanctions, not “unilateral” ones**. Hence, this decision is not in consonance with India's earlier stand.
- **Cannot afford to be seen anti-American-**
 - **NSG-** USA is a strong backer of India's NSG membership. India's commitment towards JCPOA may complicate the matter as US might push India for support.
 - **Shanghai Cooperation Organisation-** Recently China has suggested inducting Iran into the 8-member Eurasian security organization. If the proposal is accepted by the SCO, which is led by China and Russia, India will be a member of a bloc that will be seen as anti-American.
 - **Indo-Pacific-** India and U.S. have large interests and potential cooperation in this newly developing area of concern.
- **Backlash by Iran-** Iran has threatened to shut down the **Strait of Hormuz**, a key channel for global oil shipments.
- **Tightening global situation-** The US has also sanctioned Venezuela, and the OPEC and allied producers including Russia have voluntarily cut output, which has pushed up oil prices more than 35% in 2019.

Measures taken by India

- **Focus on finding alternate sources of energy-** minimising the impact on the Indian market.
- **Diversification of oil imports-** e.g. importing crude oil, LNG and ethane condensate from the US. Also, Indian oil companies had until February 2018 acquired stakes in 27 countries including Australia, Brazil, etc. Recently, an Indian consortium picked up 10% in the Lower Zakhum offshore oil field in UAE, and IOCL acquired 17% in Oman's Makaizna oilfield.

STRAIT OF HORMUZ



Way Forward

- **Building an alternative financial architecture-** India, China, the EU and other affected entities should work on it, which is immune to the U.S.'s unilateral moves.
- **Negotiate with US-** to supply oil at favorable terms to help India cover the immediate import losses.
- **Leverage partnership with other countries-** such as Saudi Arabia and the UAE to negotiate long-term alternatives to energy dependence on Iran.

2.5. ARMS TRADE TREATY (ATT)

Why in News?

US President has announced that he will withdraw his country from the International Arms Trade Treaty.

Background

- The **Arms Trade Treaty** will be opened up for amendment in 2020.
 - USA cannot support certain proposed amendments like **gun control measures** which is viewed as threat to America's **second amendment right** to bear arms.
- US has said that treaty "**fails to truly address the problem of**

Conventional Arms which ATT covers

- Battle tanks
- Armoured combat vehicles;
- Large-calibre artillery systems
- Combat aircraft
- Attack Helicopters
- Warships
- Missiles and missile launchers
- Small arms and light weapons

- “irresponsible arms transfers” because other top arms exporters - including Russia and China - have not signed up to it.
- Also, according to the **Stockholm International Peace Research Institute (SIPRI)**, the US arms industry accounted for 57 percent of the total Top 100 arms sales in 2017.

About the Arms Trade Treaty (ATT):

- It is the **first legally binding international agreement** to regulate the global trade in conventional arms by establishing common international standards for member countries.
- It has 102 states parties (Lebanon joined last month) and an additional 34 signatories, including the United States, **which had signed but did not formally ratify the treaty**. Countries who **neither signed nor ratified** included Russia, China, **India**, Iran, North Korea, Saudi Arabia and Syria.
- It was endorsed by the UN General Assembly in April 2013, and entered into force on December 23, 2014.
- It regulates ammunition or munitions fired, launched, or delivered by the conventional arms covered under the treaty.
- It requires states to monitor their arms exports, and to ensure their weapons sales do not break existing arms embargoes.
- Nations also need to ensure the weapons they export do not end up being used for genocide, crimes against humanity, war crimes or terrorist acts. If they do find out the arms will be used for any of these, they need to stop the transfer.

2.6. UN DESIGNATES MASOOD AZHAR AS GLOBAL TERRORIST

Why in news?

Recently, Pakistan-based terrorist leader Masood Azhar was added to the UN Security Council (UNSC) “**ISIL (Da’esh) and Al-Qaida Sanctions Committee**” (**1267 Committee**) sanctions list.

Details

- Sanctions Committee of the UN Nations Security Council was established under **Resolution 1267 in 1999**, which imposed limited sanctions on the Taliban.
- The Committee comprises all 15 members of the Security Council and makes its decision by consensus.
- Meaning of Global Terrorist:** Once a person or entity is designated a terrorist by the Security Council, all the member of the United Nations, will have to establish a range of domestic mechanisms such as adoption of the list at the national level, or the use of nationally-based designations of individuals or entities appearing on them.
 - A series of bans, including finances, travel and arms, will be imposed on the person or the entity.
- Monitoring of Sanctions:** The sanctions committee oversees the implementation of the sanctions measures and reports annually to the Security Council on the implementation of these measures.

Significance

- Broad global support with India-** which was reflected in the 13 co-sponsors for listing proposal in a 15 member UNSC. It has also **isolated Pakistan globally**, as apart from Saudi Arabia and Turkey, no other country supports Pakistan on this issue.
- Affirms the Wuhan Spirit**-between India and China, which also makes **strategic space** for resolution of the different irritants between the two countries.
- Strategic Alignment: Quad members** (US, Japan and Australia) co-sponsoring the proposal, shows a key element of the **global fight against terrorism**.
- Tap on terror financing-** Pakistan has to take the next steps required under UNSC 1267. If Pakistan does not do so, it faces a challenge as the Financial Action Task Force may **blacklist** it. It now gives a **legal basis** on which India pressurize Pakistan on taking verifiable and demonstrable action against Masood Azhar.
- Symbolic victory:** The move is **unlikely to have any tangible impact** unless Pakistan cooperates, as Azhar will probably continue to run tame in Pakistan, just as Hafiz Saeed of LeT has, despite being designated in a list decade ago.

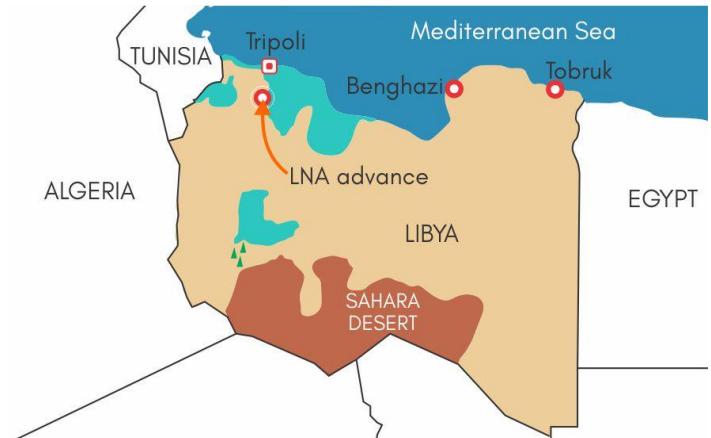
2.7. LIBYA CRISIS

Why In news?

India has evacuated its entire peacekeeping CRPF contingent from Tripoli in Libya.

Details

- The crisis in Libya began after the '**Arab Spring'** protests engulfed Libya along with other countries in the region including Tunisia and Egypt in early 2011.
- The **long-ruling dictator Muammar Gaddafi** was ousted after a bloody battle and finally killed in October 2011 bringing a brutal regime to an end.
- However, years after the revolution and successful elections, Libya still seems far from finding the perfect solution for governing this vast North African country.
- Libya is currently **split broadly between two administrations**, the UN-backed Government of National Accord (GNA) under prime minister Fayez Al Sarraj, which is based the capital Tripoli, and the House of Representatives based in the eastern town of Tobruk.
- Recently the eastern Libyan Army Commander Khalifa Haftar ordered his forces, the Libyan National Army (LNA), to take over Tripoli — the capital of the United Nations-backed government (Government of National Accord) — amid reports of escalating political tension in the country.



APPROXIMATE AREAS OF CONTROL (as of April 3, 2019)

Tobruk-based government backed by Haftar's Libyan National Army
UN-backed Government of National Accord

▲ Gas or Oil facility

■ Other factions

About UN Peacekeeping

- UN peacekeepers **provide security and the political and peacebuilding support** to help countries make the difficult, early transition from conflict to peace.
- UN peacekeepers (often referred to as **Blue Berets or Blue Helmets**) can include **soldiers, police officers, and civilian personnel**.
- UN Peacekeeping is guided by three basic principles:
 - Consent of the parties
 - Impartiality
 - Non-use of force except in self-defence and defence of the mandate.
- For its services, UN Peacekeeping has also received the Nobel Peace Prize.
- UN deployed its **first peacekeeping mission in 1948 to Palestine**.
- Since UN doesn't have any military force, **troops are provided by member states on a voluntary basis**.
 - India is the **fourth largest troop contributor** to UN peacekeeping missions (as of February 2019), as well as the **first-ever all-female force** that helped to bring peace to Liberia in the wake of that country's brutal civil war.
- Peacekeeping soldiers are **paid by their own government** according to their own national rank and salary scale.
- The financial resources of UN Peacekeeping operations are the collective responsibility of UN Member States. Decisions about the establishment, maintenance or expansion of peacekeeping operations are taken by the United Nations Security Council.

Arab Spring

- The Arab Spring was a series of pro-democracy uprisings that enveloped several largely Muslim countries, including Tunisia, Morocco, Syria, Libya, Egypt and Bahrain.
- The Arab Spring began in December 2010 when Tunisian street vendor Mohammed Bouazizi set himself on fire to protest the arbitrary seizing of his vegetable stand by police over failure to obtain a permit.
- This served as a catalyst for the Jasmine Revolution in Tunisia.
- Activists in other countries in the region were inspired by the regime change in Tunisia—the country's first democratic parliamentary elections were held in October 2011—and began to protest similar authoritarian governments in their own nations.
- The participants in these grassroots movements sought increased social freedoms and greater participation in the political process. Notably, this includes the Tahrir Square uprisings in Cairo, Egypt and similar protests in Bahrain.

3. ECONOMY

3.1. INDIAN STATISTICAL SYSTEM

Why in news?

Recently, there have been controversies and debates over the **credibility of data and statistics** published by different agencies including government bodies, independent think tanks and private players.

About Statistical Architecture in India

- India's modern statistical system took shape even before independence under the leadership of **Prof PC Mahalanobis** who was known as '**father of Indian Statistical System**'.
- The **Ministry of Statistics & Programme Implementation** (MoSPI) was later created in **1999** and the **National Statistical Commission** (NSC) was set up in **2005** in order to oversee the entire range of official statistics.
 - The Ministry has **two wings**, one relating to **Statistics** and the other **Programme Implementation**. The Statistics Wing called the National Statistical Office (NSO) consists of the **Central Statistical Office (CSO)** and the **National Sample Survey Office (NSSO)**.
- Although, India has the history of producing credible economic statistics, but recently a group of **108 economists and social scientists** called for restoration of "**institutional independence**" and integrity to the statistical organisations in India freeing critical data releases from '**political interference**'.

General Issues with Indian Statistics

- **Data sources are not available readily**- e.g. Agricultural prices are based on mandis or retail touch-points, where such data may not be final and there are changes after the data is released.
- **Non-availability of critical fiscal data such as the data on pay and allowances**.
- **Capacity Building**- the human and organisational resources of the statistical agencies have not improved since the 1980s. The internal architecture needs a revamp to adapt to the changing data needs and data handling procedures.
- **Divergence in definitions and criteria**- of different indicators which are used by various agencies. It creates further differences between the numbers.
- **Large unorganised Sector**- that spans all the three segments — primary, secondary and tertiary — it is always problematic to get accurate data and a large number of proxies are used to arrive at output numbers. To top it all, the numbers have to be revised when fresh information is received, which makes it even more challenging.
- **Lack of transparency and reliability of fiscal data due to cash based accounting**
- **Lack of continuous long term series of fiscal data**- e.g. Trade data is based on how the reporting is done, and while the RBI-BOP data is straightforward as it looks at entry and exit of forex from the system in a particular time period, the data from the Directorate General of Commercial Intelligence and Statistics is subject to changes and, at times, the conclusions drawn could be different.
- **Time lag issues**- e.g. Both CMIE and NSSO are compiled over months, and this means they do not capture data at a particular point of time.
- **Non-standard templates at different levels of the government**

Major statistics in India	
Agency	Statistics
Central Statistics Office (CSO)	GDP, Index of Industrial Production, Energy Statistics, Infrastructure Statistics, National Income Accounting, Conduct of Annual Survey of Industries, Consumer Price Indices for Urban Non-Manual Employees, Human Development Statistics, Gender Statistics, Imparting training in Official Statistics.
National Sample Survey Office (NSSO)	Primarily data are collected through nation-wide household surveys on various socio-economic subjects, Annual Survey of Industries (ASI). Also collects data on rural and urban prices, crop statistics.

Success Story of Indian Statistics- The RBI

- The **monetary and banking data** of the Reserve Bank of India is probably the best in the country and respected everywhere.
- This is possible because the data flows from a regulated set of entities which have to comply with the structures.
- The presentation of accounts by banks has been homogenised to ensure that there is no ambiguity in definitions, and hence there are no revisions in the data.

- **Politicisation of Data-** which has led to inflation and deflation of statistics to suit one's own performance, which does not corroborate with other crucial statistics. E.g. Divergence between high growth and low jobs in India.
- **Erosion of autonomy of institutions-** Senior officials of National Statistics Commission resigned recently over the holding back of jobs data.

Implications

- **Widening Trust Deficit on country's official data-** particularly on the GDP growth and employment/unemployment.
- **Global Image-** India's failing data credibility is now no longer confined to the local press but a subject the world has taken note of. The ratios such as fiscal deficit, debt, current account deficit are used for all global comparison.
- **Investors and Industries-** get impacted due to lack of predictability towards the country's economy.
- **Ineffective Policy Response-** e.g Reserve Bank of India's monetary policy decisions often go astray because of erroneous data provided by the government, as remarked by former RBI Governor Subbarao.
- **Lack of development-** e.g. there isn't enough information and data available in the public domain for us to understand the nutritional status and effectiveness of nutrition-related schemes of a particular district, block or village. This impacts developmental efforts of the government.
- **Absence of public accountability-** as there is lack of access to data for interested stakeholders. It also impedes policy implementation.
- **Impact on Public Discourse-** statistical integrity is crucial for generating data that would feed into economic policy-making and that would make for honest and democratic public discourse.

Way Forward

- The government should swiftly work on the draft recommendations made by these committees to bring a general consensus on them, along with working on the draft **National Policy on Official Statistics**.
- **De-politicize official statistics-** let the CSO rework the back-series numbers independently from the NITI Aayog which should not be in data compilation as there might be a conflict of interest.
- Whenever the base for national accounts is updated—as it should be to incorporate **conceptual changes, statistical changes** (such as methodological upgrades) or results of new surveys conducted closer to the base year—the old series should be routinely linked to the new series for providing comparable data.
- The NSC should be reconstituted at the earliest and steps taken to empower it with adequate resources as an independent watchdog. NSC should be the sole agency responsible for official statistics and reporting only to the parliament. In the long term NSC should be a statutory body.
- **Rather than strive for speed** in disseminating data on a more real-time basis, it would be better to tarry and **provide final numbers** even if there are lags involved. This would avoid the embarrassment of changing the discourse or commentary when reacting to new numbers.
- India's fiscal data system should be developed in the framework of '**information' federalism**' wherein cooperation, coordination and competition among the different tiers of federal governance would build up a modern state-of-the-art fiscal data system. This would require considerable investment of resources.

Draft National Policy on Official Statistics

- **Core statistics:** The draft policy proposes to focus on certain statistics of national importance as core statistics
- **National Statistical Commission (NSC)** be reconstituted to regulate and audit core statistics and advise the central government on improving other official statistics
- A **National Statistical Appraisal and Assessment Organisation** will be set up under NSC to conduct statistical audits.
- A **National Statistical Development Council** will be set up under the chairmanship of the Prime Minister to provide guidance to the NSC on policy matters
- **All-India Indian Statistical Service:** Currently, there are several statistical cadres such as the Indian Statistical Service, State Statistical Services, and other Group A Statistical posts or cadres.

3.2. CAPITAL ACCOUNT LIBERALISATION

Why in news?

Recently, RBI's Deputy Governor has argued in favour of revisiting India's policies with respect to Capital Account Liberalisation.

About Capital Account Liberalisation

- **Foreign exchange transactions** are broadly classified into two types: Current account transactions and Capital account transactions.
 - The **Current Account** represents a country's current transactions including exports, imports, interest payments, private remittances and transfers.
 - The **Capital Account** records the net change of assets and liabilities which include external lending and borrowing, foreign currency deposits of banks, external bonds issued by the Government of India, Foreign Direct Investment (FDI), Foreign Portfolio Investments in India (FPI) etc.
- In the early nineties, India's foreign exchange reserves were so low that these were **not enough to pay for a few weeks of imports**. Hence, India initiated reforms in Foreign transactions and in 1994, India allowed **full current account convertibility** in 1994. However, **capital account transactions** were not made fully convertible.
- **Currency convertibility** refers the ease with which a country's currency can be converted into gold or another currency in global exchanges. It indicates the extent to which the regulations allow inflow and outflow of capital to and from the country. Thus, for-
 - **Current Account-** Indian rupee can be converted to any foreign currency at existing market rates for trade purposes for any amount.
 - **Capital Account-** It means that ease with which, the foreign investors will be able to buy Indian assets such as bonds, equity and Indian citizens will be able to buy foreign financial assets.
- Since, the last decade, the government and the central bank have been exploring ways and trajectory in which fuller capital account convertibility could be achieved.

Arguments in favour of Capital Account Liberalisation

- **Bring in financial efficiency-** An open capital account could bring with it greater specialisation and innovation by exposing the financial sector to global competition.
- **Can attract larger foreign capital-** where external capital can supplement the domestic saving in the effort to mobilize resources for welfare and infrastructure.
- **Increase the choices for investments-** Residents get the opportunity to base their investment and consumption decisions on world interest rates and world prices for tradeables, which could enhance their interests and welfare.
- **Improves competitive discipline-** By offering the opportunity of using the world market to diversify portfolios, an open capital account permits both savers and investors to protect the real value of their assets through risk reduction.

Present Capital Controls in Indian Economy

- Capital control represents any measure taken by a government, central bank or other regulatory bodies to limit the flow of foreign capital in and out of the domestic economy.
- Some of the controls used presently are-
 - Cap on total FPIs in domestic securities with separate limits on different kinds of them.
 - Cap on External Commercial Borrowings (ECBs) and Masala Bonds together.
 - Restrictions on investors by their horizon of investment, such as, Insurance firms, Endowments and Pension Funds etc.
 - Restrictions on maturity of the underlying investment.
 - Restrictions to ensure that only relatively high credit quality borrowers tap into ECBs.

Committees on Capital Account Convertibility (1997, 2006)

- The Reserve Bank of India setup committees on capital account convertibility under the chairmanship of S.S. Tarapore in 1997 and 2006 respectively.
- The committee had supported the idea of full convertibility in the capital account. It recommended this to be done in a phased manner and subject to certain preconditions.
- **Some pre-conditions are-**
 - Fiscal Stability- low fiscal deficit
 - Price Stability- low inflation
 - Stability of financial institutions and markets
 - Low Non-Performing Assets

- **Helps complement current account-** Capital controls are not very effective, particularly when current account is convertible, as current account transactions create channels for disguised capital flows.
- **Changed global scenario-** Capital controls are there to insulate domestic financial conditions from external financial developments. The influence of external financial conditions, however, has been increasing over the years even in countries with extensive capital controls and because the costs of evading the controls have declined and the attractiveness of holding assets in offshore markets have increased, capital controls are increasingly becoming ineffective.

Arguments against Capital Account Liberalisation

- **Could lead to the export of domestic savings-** which can further erode the capacity of state to finance the national imperatives.
- **Could lead to greater tax avoidance-** It would weaken the ability of the authorities to tax domestic financial activities, income and wealth.
- **Could expose the economy to greater macroeconomic instability-** arising from the volatility of short-term capital movements, the risk of large capital outflows and associated negative externalities.
- **Premature liberalisation-** could initially stimulate capital inflows that would cause real exchange rate to appreciate and thereby destabilise an economy undergoing the fragile process of transition and structural reform. Once stabilisation programme lacks credibility, currency substitution and capital flight could trigger a Balance of Payment crisis, depreciation and spiraling inflation.
- **May lead to ineffective monetary policy-** due to speculative short-term movements in the interest rates, leading to other spiraling effects.
- Due to higher capital inflows following capital convertibility, the appreciating real exchange rate would **divert resources from tradable to non-tradable sectors** (like construction, housing, hotels and tourism etc.) and this would happen in the face of rising external liabilities ("Dutch disease effect").
- **Could lead to financial bubbles-** especially through irrational exuberance of investment in real estate and equity market financed by unbridled foreign borrowing.

Benefits of Capital Account Convertibility

- **Creating overseas assets-** currently is seen as a measure of dividend earning, rather it could be looked as **value enhancement**.
- **Acquisition of assets-** which are of strategic and economic importance, such as coalfields, oilfields etc. can bring long term dividends.
- **Relocation of Start-ups-** are using the holding company structure to invest in India because of the ease of raising capital in a foreign jurisdiction. This can be corrected and Start-ups can relocate in India.
- **Greater technological and strategic investments in India-** such as by defence companies, research companies etc.

Way Forward

- Given the trade-off between **growth/efficiency and stability** associated with capital flows, India's preference has strongly been in **favour of avoidance of instability**. Such an approach has imparted stability not only to the financial system but also to the overall growth process.
- The relative weights to efficiency and stability need to be **constantly reviewed** in the view of contemporary developments.
- While realizing that the impulses of growth could be supplemented with foreign capital, it is imperative to ensure that liberalisation of the capital account responds to the requirement of the economy in an appropriate, gradual and cautious manner.

3.3. SMALL FINANCE BANKS

Why in News?

Recently data from the Reserve Bank of India (RBI) show that the small finance bank sector has been seeing remarkable growth in **credit disbursement as well as deposits**.

About Small Finance Banks (SFBs)

- These are **private financial institution** for the objective of financial inclusion without any restriction in the area of operations, unlike the Regional Rural Banks or Local Area Banks.
- They can provide basic banking services like **accepting deposits and lending** to the unbanked sections such as **small farmers, micro business enterprises, micro and small industries** and **unorganised sector entities**.
- Some of the **operational Small Finance Banks** in India are: Ujjivan SFB, Janalakshmi SFB, Equitas SFB, AU SFB, and Capital SFB.
- They were proposed by the **Nachiket Mor Committee of RBI**, as one of the **differentiated banking system** for credit outreach and announced in the **annual Budget of 2014**.
- Currently, SFBs constitutes **0.2% of the total deposits** of all scheduled commercial banks and makes up **0.6% of the total lending** undertaken by the scheduled commercial banks in India.

Need for Small Finance Banks

- Differentiated banking to cater large population:** India has **second-largest unbanked population in the world** where more than **200 million people** do not have a bank account and many rely on **cash or informal financing**. Therefore, SFBs provide access to finance to a large unbanked population.
- Priority sector lending:** SFBs play a key role in the **priority sector lending** space as their main focus is the **unserved and underserved segment**.
- Financial inclusion of women:** Most of the Small Finance Banks were earlier **microfinance companies** - to provide loans to women. Now that these have become a bank, female customers can avail **full banking solutions**. Also, through different **CSR initiatives**, Small Finance Banks reach out to women customers and make them understand the need of **financial planning and banking services**.
- Social Impact:** The SFBs are now looking beyond the simple metric of "income improvement" to other indicators of positive social impact, like **customer employment characteristics, customer distribution between urban and rural markets and women's engagement**. SFBs not only serve to provide banking solutions but **empower** the socio-economic progress of its consumers. RBI states that small banks will act as a **savings vehicle** to these segments of the population.

	Payment Banks	Small Finance Banks
Who can promote	Prepaid card issuers, telecom companies, NBFCs, Business correspondents, Supermarket chains, Corporates, Realty sector Co-ops and PSUs	Individuals/ professionals with 10 years experience in finance, NBFCs, microfinance cos, local area banks
What they must do	<ul style="list-style-type: none"> ○ Have a minimum capital of Rs. 100 cr ○ Maintain 75% of deposits in govt. bonds ○ Maintain 25% of deposits in other banks ○ Have at least 26% investment by Indians ○ Get listed if net worth crosses Rs 500 cr ○ Have 25% of branches in unbanked areas ○ Be fully networked and technology driven ○ Have Rs 1 lakh cap for deposits in one a/c 	<ul style="list-style-type: none"> ○ Have a minimum capital of Rs.100 cr ○ Extend 75% of loans to priority sector ○ Have 25% of branches in unbanked areas ○ Maintain reserve requirements ○ Cap loans to individuals and groups at 10% and 15% of net worth ○ Have a business correspondent network
What they can do	<ul style="list-style-type: none"> ○ Offer internet banking ○ Sell mutual funds, insurance, pensions ○ Offer bill payment service for customers ○ Have ATMs and business correspondents ○ Can function as BC of another bank 	<ul style="list-style-type: none"> ○ Sell FOREX to customers ○ Sell mutual funds, insurance, pensions ○ Can convert into a full-fledged bank ○ Expand across the country ○ Transform into a full fledged bank, but only after RBI's approval.
What they can't do	<ul style="list-style-type: none"> ○ Offer credit cards ○ Extend loans ○ Handle cross-border remittances ○ Accept NRI deposits 	<ul style="list-style-type: none"> ○ Extend large loans ○ Float subsidiaries ○ Cannot deal in sophisticated financial products

Regulations for SFBs

- They **cannot set up subsidiaries to undertake non-banking financial service activities**.
- They have Minimum paid-up equity capital requirement of **Rs 100 crore**.
- The promoter's **minimum initial contribution** to the paid-up equity capital of such bank shall at least be 40% which can be gradually brought down to 26% within 12 years from the date of commencement of operations.

- 75% of its Adjusted Net Bank Credit (ANBC) should be advanced to the **priority sector as categorized by RBI**.
- It must have **25% of its branches set up in unbanked areas**.
- Maximum loan size to a single person **cannot exceed 10% of total capital funds; cannot exceed 15% in the case of a group**.
- They can undertake **financial services** like distribution of mutual fund units, insurance products, pension products, and so on, but **not without prior approval from the RBI**.
- They will be subject to all prudential norms and regulations of the RBI as applicable to existing commercial banks. For ex: **maintaining cash reserve ratio (CRR) and statutory liquid ratio (SLR)**.
- It can transform into a **full-fledged bank**, but only after RBI's approval.

Differentiated Banks

- They are banking institutions **licensed by the RBI** to provide specific banking services and products.
- Main aim for giving license to these banks is to **promote financial inclusion** and payments.
- Differentiated banks licensing was **launched in 2015**.
- They are of two types-Payment banks and Small finance banks.

3.4. WAYS & MEANS ADVANCES

Why in news?

RBI, in consultation with Government of India, has decided that limits for Ways & Means Advances (WMA) for H1 of FY 2019-20 (April to September 2019) will be Rs 75000 crore.

About Ways & Means Advances (WMA)

- The Ways & Means Advances Scheme which commenced in 1997 was designed to meet temporary mismatches in the receipts and payments of the **central & state government**.
- Under the WMA system, the Reserve Bank extends **short-term advances** up to the pre-announced half-yearly limits, **fully payable within three months**.
- Interest rate for WMA is currently **charged at the repo rate**.
- The limits for WMA are mutually decided by the RBI and the Government of India.
- **Overdrafts are allowed** at an interest rate 2% above the repo rate, if WMA limits are breached. They cannot be extended beyond 10 consecutive working days.
- When 75% of the limit of WMA is utilised by the government, the RBI may trigger fresh flotation of market loans.
- Under the **WMA scheme for the State Governments**, there are two types of WMA – Special and Normal WMA.
 - Special WMA is extended against the collateral of the government securities held by the State Government.
 - After the exhaustion of the Special WMA limit, State Government is provided a Normal WMA which are unsecured advances at bank rate (Marginal Standing Facility). Normal WMA limits are based on three-year average of actual revenue and capital expenditure of the state.
- Whenever the government resorts to WMA, it effectively also adds to the liquidity in the system.

Government Securities

- A Government Security (G-Sec) is a tradeable instrument issued by the Central Government or the State Governments. It acknowledges the Government's debt obligation.
- Such securities are:
 - **Short term** (usually called **treasury bills**, with original **maturities of less than one year**)
 - **Long term** (usually called **Government bonds** or dated securities with original maturity of one year or more)
- In India, the Central Government issues both, treasury bills and bonds or dated securities while the State Governments issue only bonds or dated securities, which are called the State Development Loans (SDLs).
- G-Secs carry practically **no risk of default** and, hence, are called **risk-free gilt-edged instruments**.

3.5. CIRCULAR TRADING

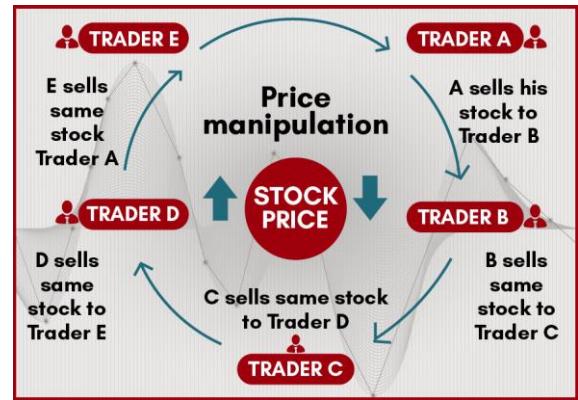
Why in news?

Recently Mumbai High Court granted bail to those arrested for circular trading and evasion of GST.

What is circular trading?

- Circular trading refers to selling and buying of goods via shell corporations to artificially inflate turnover. There is no actual change in ownership or movement of goods.

- For example, a company "A" sold goods to another company "B", which sold the same goods to another company "C". Now, the third company "C" sold the goods to the first company "A". All this while, the goods were kept at a godown of first company.
- Here GST credits were paid on every lap of transaction. The series of sales helped the firms inflate turnover and avail larger valuations and loans. This amounts to tax evasion.
- This is illegal under Prohibition of Fraudulent and Unfair Trade Practices Regulations issued by SEBI. Ketan Parekh stock market scam of 1999 was also related to circular trading.



3.6. CHANGES IN E-WAY BILL SYSTEM

Why in News?

Recently the Finance Ministry has introduced changes in the e-way bill system to crack down on GST evaders.

More on news

- With various instances of malpractices in e-way bill generation getting detected, the Government decided to rework the system for generation of e-way bill by transporters and business. During April-December 2018, 3,626 cases of GST evasion involving ₹15,278 crore were detected.
- Important Changes introduced:**
 - Auto-calculation of distance between the source and destination, based on the PIN codes.
 - Blocking generation of multiple bills based on one invoice. It would permit extension of validity of the e-way bill when the goods are in transit/movement.

About e-way bill

- E-way bill or Electronic-way bill** is a document introduced under the GST regime that needs to be generated before transporting or shipping goods worth more than INR 50,000 within state or inter-state.
- It was rolled out on April 1, 2018, for moving goods from one state to another however for intra-state movement of goods it was rolled out in a phased manner.
- The physical copy of e-way bill must be present with the transporter or the person in charge of the conveyance and should include information such as goods, recipient, consignor and transporter.
- Upon generation of the E-Way Bill, on the common portal, a unique E-Way Bill number called 'EBN' is made available to the supplier, the recipient and the transporter.
- The portal has been developed by the National Informatics Centre (NIC).

3.7. MUNICIPAL BONDS

Why in news?

The Reserve Bank of India (RBI) has allowed foreign portfolio investors (FPIs) to invest in municipal bonds.

What are municipal bonds?

- They are **debt securities** issued by **government or semi-government institutions** who need funding for civic projects.
- Normally, they are **issued and redeemed at par** and carry a fixed interest rate.

SEBI Guidelines on municipal bonds

As per the SEBI Regulations, 2015, a municipality or a Corporate Municipal Entity (CME) to issue Municipal Bonds should meet certain conditions:

- The ULB should not have negative net worth in any of three immediately preceding financial years.
- Non-default:** The municipality should not have defaulted in repayment of debt securities or loans obtained from banks or financial institutions during the last 365 days.
- Municipalities need to contribute at least 20% of the project cost.
- No wilful defaulter:** The corporate municipal entity, its promoter, group company or director(s), should not have been named in the list of the wilful defaulters published by the RBI or should not have defaulted on payment of interest or repayment of principal amount in respect of debt instruments issued by it to the public, if any.
- Municipal bonds should have mandatory ratings above investment grade for public issue.

- There are two types of municipal bonds
 - General obligation bonds are issued for enhancing civic amenities such as water, sanitation, garbage disposal, etc. They generally are not backed by revenue from a specific project.
 - Revenue bonds are issued for a specific purpose such as construction of a toll road or a toll bridge.
- Bangalore Municipal Corporation was the first urban local body (ULB) to issue Municipal Bond in India in 1997.

Need for Municipal Bonds

- **Improving urban infrastructure:** A High Powered Expert Committee (HPEC) on Urban Infrastructure estimated a requirement of Rs 3.92 million crores to provide urban services conforming to national benchmarks for urban infrastructure over a period 2012-31.
- **Alternative source of finance:** It may help corporations in raising funds without looking to State grants or agencies such as World Bank. Also, rating agency CARE estimates that large municipalities in India could raise Rs. 1,000 to Rs. 1,500 crore every year considering municipal bond markets in US and China touch around \$3.7 trillion and in China \$187 billion.
- **Attracting institutional investors:** They may ensure participation of large institutional investors such as pension funds and insurance companies by providing less risky avenues of investments to them

Challenges for Municipal Bond Market in India

- **Issues with municipal bond:** They are relatively less liquid instruments due to absence of secondary market for them, which results in investors having to hold municipal bonds until maturity.
- **Credit worthiness:** Earlier 94 cities which are part of Smart City Mission and Atal Mission for Rejuvenation and Urban Transformation (AMRUT), were rated by agencies such as CRISIL. Out of 94, 55 cities got investment grade rating (BBB- and above), while other 39 were rated below BBB-. **Reasons affecting credit worthiness include:**
 - Thirteenth finance Commission data reflected that the **municipal tax to GDP ratio is a meagre 0.5 per cent** as compared to central tax to GDP ratio at 12 per cent.
 - **Dependence of Municipal bodies for funds and unpredictability of transfers from State governments to ULBs** impact the outlook of financial position of ULBs.
- Except in a few big ULBs **the budgeting and accounting systems of ULBs still lack transparency** which leaves scope for misappropriation of assets and misleading picture of income and expenditure of ULBs.
- There may be **increased cases of default** when the debts on Municipalities increase too much as is happening in China currently.
- Further there are **no insolvency and bankruptcy laws** and security enforcement laws applicable against municipalities unlike corporate sector.

Suggestions

- **Increasing the marketability** of the bonds by bringing them under EEE category (Where the initial investment, the interest earned and the maturity amount are all exempted from taxation) so that retail investors can be brought into the market.
- **Need to encourage establishment of bond markets:** Creating a secondary market for bond trading to tap long-term savings and allowing households or institutions to sell their long-term bonds before maturity.
- **Municipal bonds could be given the status of 'public securities'** so that they become admissible for statutory liquidity ratio (SLR) investment by commercial banks.
- Further urban infrastructure can be made part of **priority sector lending** to increase the demand for municipal bonds from institutional investors.
- Introduction of a debt recovery and bankruptcy law applicable to urban entities
- Structural reforms at the governance level must also be undertaken to equip municipalities with the technical and financial expertise to generate adequate credit worthy municipal finance opportunities.

3.8. DRAFT NATIONAL URBAN POLICY FRAMEWORK

Why in news?

The Ministry of Housing and Urban Affairs released its first draft of the **National Urban Policy Framework (NUFP), 2018.**

Background

- India has been urbanized at a fast pace in the last two decades, yet despite many efforts, India's cities are struggling to provide for their current population.
 - The **U.N. World Urbanization Prospects 2018** report states that about **34 per cent India's population now lives in urban areas**.
 - This shows an urgent need to revisit the country's urban strategy.
- Building both on the international frameworks as well as the national missions, the **National Urban Policy**

10 Urban Sutras (Principles) of NUPF

- Cities are clusters of human capital
- Cities require a 'sense of place'
- Not static Master Plans but evolving ecosystems
- Build for density
- Public spaces that encourage social interactions
- Multi-modal public transport backbone
- Environmental sustainability
- Financially self-reliant
- Cities require clear unified leadership
- Cities as engines of regional growth.

Framework (NUPF) outlines an integrated and coherent approach towards the future of urban planning in India.

- The NUPF is **structured along two lines:** (i) **10 core philosophical principles** of urban planning, and (ii) these principles are then applied to **ten functional areas** of urban space and management.
- The framework provides recommendations on these functional areas.

Key Challenges and Recommendations

Functional Area	Challenges	Recommendations
City Planning	<ul style="list-style-type: none"> Master planning has led to a static built environment, which is largely disconnected from the rapidly changing socio-economic conditions in urban areas Master plans fail to be truly comprehensive due to the missing link between the spatial and functional aspect Urban planning has been done with the male perspective. 	<ul style="list-style-type: none"> Planning area boundaries must include both urban and peri-urban areas Master plans should be dynamic and stipulate clear links to budgets. Spatial planning exercise should be participatory and ensure that it embraces diverse views of all sections of the society Master planning should be made more efficient using technologies like GIS, GPS, Remote sensing etc.
Urban Economy	<ul style="list-style-type: none"> Congestion effects are preventing realization of full economic potential of urbanization Urban development in India has remained isolated from planned national development 	<ul style="list-style-type: none"> Cities instead of remaining isolated centres of economic activity with weak linkages to hinterland should become vibrant centres and make full use of natural and human resources in the regions The states should develop strategies on how to integrate the informal sector into the economic system both in terms of space but also input and output linkages. Explore new avenues of job creation in green technologies, new and eco-friendly construction methods. In larger cities, City Economic Councils can serve as a clearing house between business and governments to hasten progress of specific projects. A quarterly City Dashboard capturing city-level investments, GDP and employment growth
Physical Infrastructure	<ul style="list-style-type: none"> Drinking Water <ul style="list-style-type: none"> Source of water far away inordinate dependence on sub-surface water governments are unwilling to pass on the actual costs to consumers Sanitation and sewerage <ul style="list-style-type: none"> Lack of investments on improving or even maintaining the standards large parts of cities are not covered 	<ul style="list-style-type: none"> Value Capture Finance Framework (e.g. tax increment financing). Professional institutions for each of the areas of urban infrastructure governance. States should improve efficiency and service delivery over a period of time by switching over to performance-based contracts, as in Nagpur. Use integrated digital technologies Integrate spatial plans with infrastructure plans.

	to sewerage disposal systems; wastes find their way into rivers	
Social Infrastructure	<ul style="list-style-type: none"> Technical, professional, medical and educational services (except religious services) were poorly developed Gender based educational inequality declining role of public delivery of health services, high OOP expenses on health Cultural Heritage is not taken care of 	<ul style="list-style-type: none"> Progressively move to Direct Benefit Transfer (DBT) for all schemes of Government Develop need based education services for the urban poor and other marginalized sections of urban society. A GIS based heritage mapping should be done to conserve and promote the historical monuments located in cities
Housing and Affordability	<ul style="list-style-type: none"> land is scarce in urban areas Nearly 95% of housing shortage occurs for households in the EWS and LIG sections. Promoting rental housing has escaped the attention of policy makers. 	<ul style="list-style-type: none"> A national housing stock must be created under the NUP Framework in collaboration with Mo/ Rural Development as envisaged under the PMAY (U) guidelines In-situ upgrading that reduces the physical and legal vulnerability of self-built housing Inclusionary zoning could also incorporate livelihood to create integrative, dynamic mixed-use spaces Converting occupied public land into social rentals could be one way to expand rental housing.
Transportation and Mobility	<ul style="list-style-type: none"> increased traffic congestion different modes of public transport operate in silos and fragments lack of designated space for road based public reduces its appeal to commuters who can afford other modes of transport lack of a comprehensive parking policy 	<ul style="list-style-type: none"> Road ‘improvement’ projects should not occur at the expense of footpath space or cycle tracks. A comprehensive street vending policy All future airports, buses, trains and metro stations should be designed in a way to ensure seamless transits for commuters switching modes Public bus operators should introduce Intelligent Transport Systems (ITS)
Urban Finance	<ul style="list-style-type: none"> economic and financial expertise is unavailable at the local level (especially in case of smaller municipalities) to assess at correct rates for services provided by the utilities. poor paying capacity of a segment of population is used as an excuse for not charging even from others, who can and should pay. 	<ul style="list-style-type: none"> Insert a ‘Local Bodies Finance List’ (LBFL) along the lines of the Union List and the State List. Revenue Mobilization Plan to include property tax, professional tax, user charges, fees ULBs who have been credit rated should implement revenue enhancement plans There should be improved accounting system based on double entry and accrual system leading to better financial management and transparency.
Urban Governance	<ul style="list-style-type: none"> Fragmentation of functions Presence of parastatal bodies (for specific functions) has led to the proliferation of a multiplicity of agencies at the city level. Most of the ULBs are understaffed 	<ul style="list-style-type: none"> Codify the roles of all functionaries contemporary ways of accountability should be explored, such as recall and referendum Digitally enabled social audit should be introduced. outsourcing of functions and functionaries should bridge capacity gaps.
Urbanization and Information System	<ul style="list-style-type: none"> lack of empirical data at town/ state/ national levels, lack of updated accurate base maps, lack of map data of underground infrastructure, outdated techniques of ground survey, use of citizens applications in silos 	<ul style="list-style-type: none"> Cities need to build Integrated Command and Control Centre (ICCC) Through smart electricity grids and smart metering for electricity, water and gas, ICT applications like Intelligent LED Street Lighting and Surveillance, networking of safety and security systems (CCTVs, police, traffic, etc.) Implement Open data Policies
Environmental Sustainability	<ul style="list-style-type: none"> India’s cities are amongst the worst affected in terms of air pollution The depletion in access to safe and usable surface and groundwater sources 	<ul style="list-style-type: none"> Plan and implement national and state level disaster plans. Develop urban water management plans with a 5 to 10 year timeline. Promote extended producer responsibility (EPR) principles in waste management rules.

3.9. ASIAN TEA ALLIANCE

Why in News?

Recently the Asian Tea Alliance (ATA), a union of five tea-growing and consuming countries, was launched in Guizhou, China.

Details

- The forging of this alliance is an outcome of the signing of a memorandum of understanding in December 2018 between the **Indian Tea Association** and **China Tea Marketing Association**.
- Participating countries:** India, China, Indonesia, Sri Lanka and Japan.
 - It will work towards enhancing tea trade, promoting tea globally, and creating a sustainability agenda for the future of Asian tea.

Climatic Condition suitable for Tea

- Temperature:** 21°C to 29°C is ideal for Tea. The lowest temperature for the growth of tea is 16°C.
- Rainfall:** 150-250 cm of rainfall is required for tea cultivation.
- Soil:** Tea shrubs require fertile mountain soil mixed with lime and iron. The soil should be rich in humus.
- Land:** Tea cultivation needs well drained land. Stagnation of water is not good for tea plants.

Indian Tea Industry: At a Glance

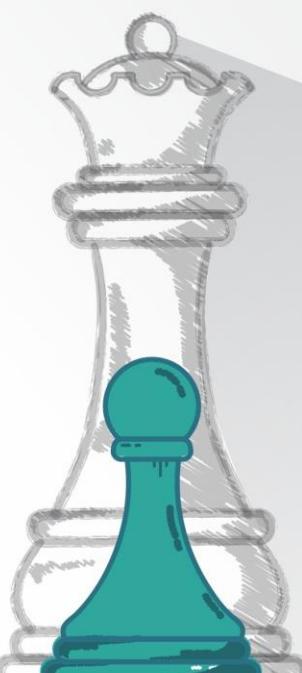
- As of 2018 India was the **second largest producer** of Tea in the world after China.
- India **stands fourth in terms of tea exports** after Kenya, China and Sri Lanka respectively.
- India is one of the **world's largest consumers of tea**, with about three-fourths of the country's total produce consumed locally.
- The **main tea-growing regions** are in Northeast India (including Assam) and in north Bengal (Darjeeling district and the Dooars region) along with Nilgiris in south India.

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4. SECURITY

4.1. ARMED FORCES SPECIAL POWERS ACT (AFSPA)

Why in news?

After 32 years of imposition, Armed Forces Special Powers Act (AFSPA) was partially withdrawn from three of the Arunanchal Pradesh's nine districts by Ministry of Home Affairs (MHA).

About AFSPA

- Armed Forces (Special Powers) Act, enacted in the year 1958, **grants extra-ordinary powers and immunity to the armed forces** to bring back order in the "disturbed areas".
- Areas are considered disturbed "by reason of differences or disputes between members of different religious, racial, language or regional groups or castes or communities".
- AFSPA **empowers the Governor of the State/Union territory** to issue an official notification declaring the state or a region within as a "disturbed area", after which the Centre can decide whether to send in armed forces.
- Some of these extra-ordinary powers include:
 - Fire upon anyone after giving warning who is acting against law & order in the disturbed area.
 - Arrest anyone without warrant.
 - Stop and search any vehicle or vessel.
 - Armed forces personnel have legal immunity for their actions.
- Presently AFSPA is enforced in the 5 states of North East (parts of Arunachal, Assam, Manipur, Mizoram & Nagaland) and J&K.
- AFSPA was removed from Tripura in 2015 and from Meghalaya in 2018.

Rationale behind imposition of AFSPA

- **Effective functioning:** It is essential for the armed forces to function effectively in insurgency and militancy affected areas.
- **Security of nation:** Provisions of this act have played a crucial role in maintaining law and order in disturbed areas. Thus, protecting **sovereignty and security of the nation**.
- **Protection of member of armed forces:** It is crucial to empower members of armed forces who **constantly face threat** to their lives at the hands of insurgents and militants. Its withdrawal would result in **poor morale**.
 - Extra-ordinary powers are also necessary as the armed forces **face asymmetric warfare** involving raids, ambushes, mines and explosive devices, sabotage etc.

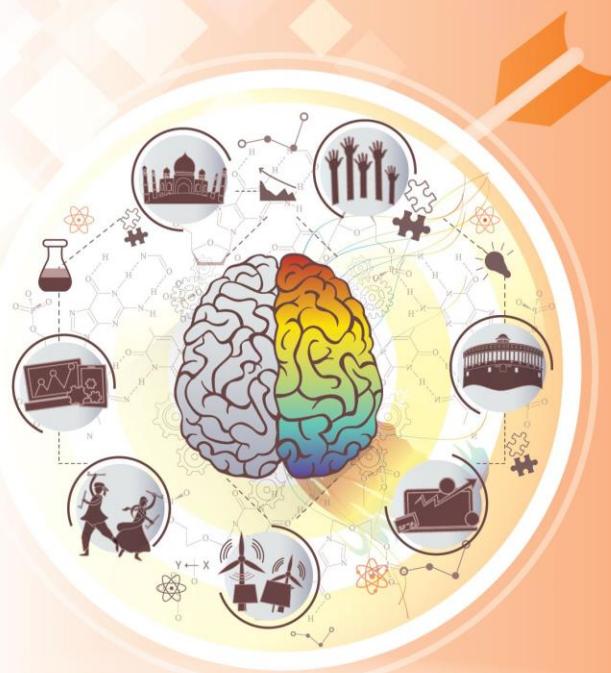
Arguments against AFSPA

- It has been alleged that **immunity** granted by the act has led the armed forces to **misuse the powers** and commit offences like enforced disappearances, fake encounters and sexual assault.
- It leads to **suspension of fundamental rights** and liberties guaranteed to the citizens by the constitution. Thus, it weakens democracy.
- People's disillusionment with democratic setup is **exploited by secessionists** and terror sympathizers, which leads to more violence & more counter violence creating a vicious cycle.
- Critics argue that this act has **failed in its objective** of restoring normalcy in disturbed areas although being in existence for about 50 years.
- Human rights violations in AFSPA areas are **not inquired into** and followed by adequate action. Thus, it is **against the principle of natural justice**.
- **Justice Verma committee** (on offenses against women in conflict areas) said AFSPA legitimizes impunity for sexual violence E.g. Kunan Poshpora incident; Thangjam Manorama case in Manipur
- Justice **Santosh Hegde Committee** to investigate fake encounters in Manipur described it as a "symbol of oppression"
- Justice **Jeevan Reddy Committee** recommended removal of absolute immunity under AFSPA.

Way Forward

- It needs to be emphasized that **human rights compliance and operational effectiveness are not contrarian requirements**. In fact, adherence to human rights norms and principles strengthens the counter insurgency capability of a force.
- Protection for the armed forces must be accompanied by provisions that ensure responsibility and accountability, within the parameters of law. It is for this reason that robust safeguards need to be incorporated in the existing or any new law.
- The terms like “disturbed”, “dangerous” and “land forces” need to be clearly defined to ensure greater clarity.
- Greater transparency in communicating the status of existing cases to include its display on the army and government’s web sites.
- Proactive feedback to petitioners on action taken by the government in past human rights cases.

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5. ENVIRONMENT

5.1. INTERNATIONAL SOLAR ALLIANCE

Why in News?

Recently, Bolivia became the 74th country to sign the framework agreement of the **International Solar Alliance (ISA)**.

About ISA

- It is an initiative **jointly launched by India and France in 2015** on the sidelines of COP-21 of UNFCCC in Paris.
- It was officially established on 6 December 2017, on the entry into force of the Framework Agreement.
- The membership is open to those solar resource-rich States, which lie **fully or partially between the Tropic of Cancer and the Tropic of Capricorn**, and are members of the United Nations.
 - The First Assembly at Delhi adopted the proposal made by India to expand the scope of membership of the ISA to **all members of United Nations**. This has not yet entered into force.
- Through this initiative, the countries share the collective ambition:
 - to **address obstacles** that stand in the way of rapid and massive scale-up of solar energy;
 - to undertake innovative and concerted efforts for **reducing the cost of finance and cost of technology** for immediate deployment of competitive solar generation; and
 - to **mobilise more than 1000 Billion US Dollars** of investments by 2030.
 - accelerate the development and **deployment of over 1,000GW** of solar generation capacity in member countries.
- The ISA has established **five key programmes** of action:
 - scaling up solar applications for agricultural use
 - affordable finance at scale
 - scaling up solar mini-grids
 - scaling up solar rooftop
 - scaling up solar e-mobility and storage
- All costs relating to the running of the ISA will be funded through voluntary contributions of member-countries, partner countries, partner organisations and Strategic Partners.
 - Funding under ISA is also been exempted to be treated as a foreign source of funding for Indian NGOs and other entities under the FCRA.
- It is a first **treaty based international intergovernmental organization** headquartered in India.
- The ISA Secretariat has launched
 - a Solar Technology Application and Resource – Centre (iSTAR-C) to support capacity building efforts in the ISA member countries.
 - the ISA Solar Award (Kalpana Chawla Solar Award) to recognize solar scientists doing extraordinary work across ISA member countries.

Related news

- India is reaching out to the '**Lithium Triangle**' in South America which consists of Chile, Argentina and Bolivia.
- Khanij Bidesh India Ltd., (KABIL) consortium of three PSU companies including: National Aluminum Company (NALCO), Hindustan Copper (HCL) and Mineral Exploration Corp Ltd., (MECL) visited these countries recently.



Significance of ISA

- **Ensure Energy Security**
- **Integration of Global South and Global North**
- **To Solve Global Energy Poverty** as according to International Energy Association (IEA), there are more than "600 million people without access to electricity" in **Sub-Saharan Africa**.
- Creation of an **Alternative Electricity Energy Grid Based** on solar energy among various countries, to overcome a financial constraint in tapping solar energy.

- ISA has also been developing a Common Risk Mitigating Mechanism (CRMM) for de-risking and reducing the financial cost of solar projects in the ISA member countries.

5.2. RENEWABLE ENERGY CERTIFICATES

Why in news?

Recently, the Renewable Energy (RE) companies have moved the Delhi High Court, seeking an exemption for **Renewable Energy Certificates (RECs)** under the goods and services tax (GST).

About Carbon Market in India

- In a bid to promote renewable energy market in India, the Government of India has framed policies under the **Electricity Act, 2003** and the **National Action Plan on Climate Change (NAPCC)**.
- Consequently, India currently has **two carbon market-based trading schemes** in place-
 - The Perform, Achieve & Trade (PAT)**, which is designed to accelerate implementation of cost-effective measures in energy efficiency in large energy-intensive industries.
 - The Renewable Energy Certificate (REC)**, which is designed to promote generation of renewable energy (RE) within the country.

Renewable Energy Certificates

- A Renewable Energy Certificate (REC) is a **market-based instrument** that certifies the bearer owns **one megawatt-hour (MWh)** of electricity generated from a renewable energy resource.
- Once the power provider has fed the energy into the grid, the REC they receive **can be sold in the open market as a commodity**. A pan-India market has been created for trading in RECs through two Power Exchanges namely, **Indian Energy Exchange (IEX)** and **Power Exchange of India (PXIL)**.
- The price of RECs is determined by market demand, and contained between the '**floor price**' and '**forbearance price**' specified by the **Central Electricity Regulatory Commission (CERC)**. These tariffs are reviewed periodically to reflect the average tariffs quoted in the latest RE Power Purchase Agreement (PPA).
- There is a **concentration of RE potential in a few states**, which means that the same level of **Renewable Purchase Obligation** compliance cannot be expected from all states. These leads to following implications-
 - The low potential states have to resort to **expensive cross-border procurement**, accompanied with many regulatory hurdles and additional charges.
 - Also, the surplus states with abundant renewable resources cannot absorb renewable power at preferential tariff.

PARAMETER	PAT	REC
	Bureau of Energy Efficiency (BEE), under the aegis of the Ministry of Power (MOP)	Ministry of New and Renewable Energy (MNRE)
	Launched in 2012; Currently in its 3rd Cycle, with each cycle being for 3 years	Launched in 2010; no definite cycle designed, but implementation is designed for annual cycles based on notification of RPOs.
	Energy Saving Certificates (ESCert) are measured in ton of oil equivalent (TOE) value; 1 ESCent - 1 TOE sav	REC Certificates are measured in Mwh value; 1 REC - 1 MWh
	Till date, 11 energy-intensive sectors have been notified for PAT - Aluminum, Cement, Chlor-Alkali, Fertilizer, Iron & Steel, Paper & Pulp, Thermal Power Plants, Textile, Railways, Refineries & Electricity Distribution Companies	2 categories of RECs; solar RECs and non-solar RECs. The following categories are included: Electricity distributors /suppliers such as Distribution Licensees, Captive Consumers, Open Access users
	Central Electricity Regulatory Commission (CERC)	Central Electricity Regulatory Commission (CERC)
	Power System Operation Corporation Limited (POSOCO)	Power System Operation Corporation Limited (POSOCO)
	Indian Energy Exchange (IEX) and Power Exchange India Limited (PXIL)	Indian Energy Exchange (IEX) and Power Exchange India Limited (PXIL)

Renewable Purchase Obligation (RPO)

- Launched in 2010, RPOs make it obligatory for distribution companies, open-access consumers and captive power producers to meet part of their energy needs through green energy.
- Pre-defined RPO target for all states currently ranges from 3 per cent to 10 per cent of the total energy requirement of the states. RPO is divided in two parts- solar RPO and non-solar RPO.
- The Ministry of New and Renewable Energy (MNRE) introduced incremental annual RPO targets amounting to 21 per cent in 2022.

- The State distribution companies (DISCOMS) with large shares of subsidised consumers end up bearing **disproportionately high costs**.
- So, this mechanism provides a **means to address the dispersed availability of renewable energy sources across various States in the Country**.

Other Benefits of REC Market

- **Promotion of stand-alone systems**- Since trade in RECs do not require transmission of electricity, the additional revenue from sale of RECs could help to improve viability of standalone systems. In usual scenario it may not be economical to transmit electricity from such regions.
- **Competition in Electricity Market**: Separating the RECs from electrical energy, allows near **cost effective renewable energy** to participate in the power exchange in a competitive manner. Revenue from RECs may be helpful to address the cost disadvantage for such renewable energy technologies.
- **Attract Investment**: REC market helps provide appropriate opportunities for development of renewable energy based electricity generation.

Challenges of REC Market

- **Voluntary in nature**- hence, creating a demand for RECs is a challenging task which leads to a supply-demand mismatch in the market.
- **Lack of awareness**- among corporates, individuals and NGOs for the RECs.
- **Regulatory Challenges**- The obligated entities prefer to continue to buy renewable power directly rather than using RECs, to comply with their RPOs owing to uncertainties in trading of RECs.
- **Low Solar REC trading**- which was affected following Central Electricity Regulatory Commission's (CERC) decision to reduce the floor and ceiling price of solar and non-solar RECs in March 2017.

Way Forward

- The REC mechanism holds potential in promoting renewable sources of energy and development of market in electricity, leading to the sustainable development of the country. It also provides avenue for voluntary buyers to go green and contribute to the sustainable development of the country.
- There is a need to sensitize voluntary buyers like industries and corporate about their contribution to green energy & environment.
- Capacity building of all the stakeholders should be done including the state agencies and project developers.

5.3. FLY ASH UTILISATION

Why in news?

Various fly ash brick manufacturing units in the country have been closed due to difficulty in procurement of fly ash.

Background

- **Coal/Lignite based Thermal Power Generation** has been the backbone of power capacity addition in the country. Indian coal is of **low grade with ash content of the order of 30-45 %** in comparison to imported coals, which have low ash content of the order of 10-15%.
- Large quantity of ash is, thus being generated at coal/lignite based Thermal Power Stations in the country, which not only requires large area of precious land for its disposal but is also one of the sources of pollution of both air and water.
- Hence, the Government of India and some states have mandated compulsory guidelines for utilization of Fly Ash.
- However, the Fly Ash Users have alleged that the generators have created artificial shortage of Fly Ash owing to following reasons-
 - There is cartelization among thermal power plants in terms of supply of fly ash.
 - Priority is given to road or other project contractors owing to “election compulsions” during the election time.

Fly ash

- It is a fine powder, which is the by-product of burning coal in thermal power plants.
- **Composition**: Fly ash includes substantial amounts of oxides of silica, aluminum and calcium. Element like Arsenic, Boron, Chromium, lead etc. are also found in trace concentrations.

Government Measures to promote Fly Ash Utilization

- **Central Electricity Authority (CEA)** on behalf of Ministry of Power has been monitoring since 1996-97 the fly ash generation and its utilization in the country at coal/ lignite based thermal power stations.
- **Notifications by Ministry of Environment, Forests and Climate Change on Fly Ash Utilization**, with the latest coming in 2016 with following features-
 - Mandatory uploading of details of fly ash available on Thermal Power Station's (TPS) website and updating of stock position at least once in every month;
 - Increase in mandatory jurisdiction of area of application from 100 km to 300 km;
 - Cost of transportation of fly ash to be borne entirely by TPS up to 100 km and equally shared between user and TPS for more than 100 km and up to 300 km;
 - Mandatory use of fly ash based products in all Government schemes or programmes e.g. Pradhan Mantri Gramin Sadak Yojana, Mahatma Gandhi National Rural Employment Guarantee Act, 2005, Swachh Bharat Abhiyan, etc
- **Another government notification, released in February 2019 states that-**
 - The existing red clay brick kilns located within 300 km shall be converted into fly ash-based bricks or blocks or tiles manufacturing unit within one year from the date of publication of this notification.
 - In order to encourage the conversion, TPS should provide fly ash at the rate of Re 1 per tonne and bear the full transportation cost up to 300 km to such units.
- Last year, the **Prime Minister's Office** had asked for multiplying the fly ash usage “by 10 times” in a time-bound manner in the country.

Advantages of Fly Ash Utilization

- **Prevent Contamination of Water Resources**- by preventing contamination of surface water through erosion, runoff, airborne particles landing on the water surface; of ground water moving into surface waters, flooding drainage, or discharge from a coal ash pond.
- **Prevents Soil Erosion**- Helps restrict usage of topsoil for manufacturing of bricks.
- **Used in variety of construction works**- Fly ash is a proven resource material for many applications of construction industries and currently is being utilized in manufacturing of portland cement, bricks/blocks/tiles manufacturing, road embankment construction and low-lying area development, etc. Flyash bricks have been found to show better strength.
- **Used in Agriculture**- as an agent for acidic soils, as soil conditioner — improving upon some important physio-chemical properties of the soil such as hydraulic conductivity, bulk density, porosity, water holding capacity, etc.

Way Forward

- **Policy support:** To promote the usage of fly ash, state and local governments should issue preferential policies that encourage its recycling, such as the preferential purchase of recycled fly ash products and reduction of the overall effective tax.
- **Identifying prospective users:** Areas having large prospective of fly ash utilization needs to be discovered for increasing the overall utilization of fly ash in India.
- **Technological enhancements:** Renovation and modernization of coal/lignite based Thermal Power Stations need to include the technological advancement required to ensure **development of dry fly ash**.
- **Creating a market:** Renovation and modernization should also include a marketing strategy for the development of flyash based industries and making available fly ash and fly-ash based building products in the nearby markets.
- **Spreading awareness:** The road contractors and construction engineers need to know the benefits of using fly ash in construction.

Other Measures taken by Government

- **ASH TRACK**- mobile application that gives plant-wise, utility-wise and State-wise ash utilization status in the country.
- **Maharashtra**- became the 1st state to adopt the fly ash utilization policy.
- **Odisha** has ordered the plants to subsidize the transport costs.
- **NTPC** in collaboration with Institutes like IIT-Delhi and IIT-Kanpur has initiated manufacturing of pre-stressed railway concrete sleepers.

- Utilization of fly ash in agriculture is below expectation because of presence of heavy metal and radioactive elements in fly ash. These apprehensions are mandatory to be addressed for increasing fly ash utilization
- **Industry-Academia Partnership:** There is need to encourage industry-institute interaction for entrepreneur development, creating awareness and organizing training workshops.
 - New emerging areas such as Light Weight Aggregates and Geo-polymers, Coal Beneficiation Blending and Washing, etc. needs to focus for higher utilization of fly ash in the country.
 - In view of large quantity of fly ash generation, utilization of fly ash may be introduced as construction material in academic curriculum of Engineering, Architecture, Mining, Agriculture etc.

5.4. BHARAT STAGE NORMS

Why in news?

Supply of Bharat Stage-VI grade petrol and diesel has begun in cities adjoining the national capital recently. Delhi in April 2018 became the first city in the country to leapfrog from BS-IV grade petrol and diesel to BS-VI fuels.

About Bharat Stage Norms

- India introduced emission norms in 1991 and by 1996 most vehicle manufacturers had to incorporate technology upgrades like catalytic converters to cut exhaust emissions.
- The Supreme Court in 1999 made Centre notify Bharat Stage-I (BIS 2000) and Bharat Stage-II norms, broadly equivalent to Euro I and Euro II respectively.
- In 2014, Saumitra Chaudhary committee gave recommendations on Auto Fuel Vision Policy 2025 which had recommended implementation of BS-IV (2017), BS-V (2019) and BS-VI (2024) standards.
- In 2016, the Union Government announced that the country would skip the BS-V norms altogether and adopt BS-VI norms by 2020.
- **Currently, BS IV norms have been enforced across the country since April 2017.** However, recently the Supreme Court of India ordered barring of sale of **Bharat Stage IV vehicles** from April 1, 2020.

Bharat Stage Emission Norms

- These are norms instituted by the government to regulate the output of air pollutants from internal combustion engine equipment, including motor vehicles.
- To bring them into force, the Central Pollution Control Board sets timelines and standards which have to be followed by automakers.
- BS norms are based on European emission norms which, for example, are referred to in a similar manner like 'Euro 4' and 'Euro 6'.

Major Differences in BS VI

- **Selective Catalytic Reduction Technology-** It reduces oxides of nitrogen by injecting an aqueous urea solution into the system. Hence, NOx from diesel cars can be brought down by nearly 70%. In the petrol cars, they can be reduced by 25%.
- **Sulphur Content-** While the BS-IV fuels contain 50 parts per million (ppm) sulphur, the BS-VI grade fuel only has 10 ppm sulphur content.
- **Particulate Matter-** in diesel cars will be reduced by 80%.
- **Mandatory on-board diagnostics (OBD)-** which inform the vehicle owner or the repair technician about how efficient the systems in the vehicles are.
- **RDE (Real Driving Emission)** will be introduced for the first time that will measure the emission in real-world conditions and not just under test conditions.

Significance

- **Vehicular emission** is a major contributor to the worsening air quality of Indian cities. Emission of NOx, SO2, CO2 and particulate matter is taking a toll on people's health. In cities like Delhi, the PM2.5 level is more than 6 times the prescribed levels by WHO. These new norms will help reduce these vehicular pollution significantly.
- At the BS-VI level, the gap maintained between emissions from diesel and petrol, wherein diesel cars are allowed to emit more particulate matter and nitrogen oxide, narrows.

Challenges

- **Huge Cost for automakers-**
 - Moving to BS-VI directly will require significant technological upgrades for which auto companies may have to invest heavily.
 - Once the research and development is over, the task of setting up full-scale production comes up.
 - Automakers were supposed to make their models BS IV compliant by April 1, 2017. While some automakers have met the targets and updated their products, there is a huge stock of vehicles left to be

sold into the market. As per the Society of Indian Automobile Manufacturers (SIAM), the companies were holding stock of around 8.24 lakh such vehicles.

- **Timeframe-** Normally it takes 4 years to upgrade and here the companies have to skip the BS V altogether and upgrade directly to BS VI. **Smaller bonnet cars** of India may not be able to imbibe Diesel Particulate Filter in them which was supposed to be a **part of BS-V upgrade**.
- **Impact on buyers-** This can have the effect of making cars and other vehicles more expensive.
- Directly aping the Euro norms is problematic, considering that **driving conditions** in India are different from Europe.
- Further, improving the emission will not alone solve the problem of vehicular pollution as the number of **vehicles is disproportionately high** in Indian cities.

Way Forward

- A successful transition to BS-VI norms will be a landmark event for the country and it must be taken in a mission mode approach by all the stakeholders.
- Governments should incentivize the automobile manufacturers and partner the oil companies to manage this transition.

5.5. INDOOR AIR POLLUTION

Why in news?

A recent study has pointed out that **household emissions** remained one of the major factors behind air pollution.

Background

- **Indoor air pollution** refers to the degradation in physical, chemical, and biological characteristics of air in the indoor environment within a home, building, or an institution or commercial facility.
- As per the analysis carried out by researchers from IIT Delhi in collaboration with other universities, it was found that the use of **firewood, kerosene and coal** in the households contributed to about **40% of the PM 2.5 pollution in the Gangetic basin districts**. This number varied across the country but household emissions remained one of the major culprits behind air pollution.
- The results showed that by eliminating household emissions the average outdoor air pollution levels could be reduced and brought within the national ambient air quality standards.

Major Causes of Indoor Air Pollution

- **Use of Open Fires, unsafe fuels or combustion of biomass fuels, coal and kerosene.**
- **Gas stoves or badly installed wood-burning units**
- **Construction of more tightly sealed buildings-** which accumulate more pollutants. It also leads to **poor ventilation** in houses, which do not allow cross ventilation of air in the indoors.
- **Asbestos released from the construction material-** is a big contributor to air contamination indoors. Increased use of synthetic material now days in construction has resulted in emission of toxins in the indoor air. Paints, coatings and tiles are main sources of asbestos.
- **Volatile Organic Compounds-** which originate mainly from solvents and chemicals. The main indoor sources are perfumes, hair sprays, furniture polish, glues, air fresheners, moth repellents, wood preservatives, and many other products used in the house.
- **Tobacco Smoke-** generates a wide range of harmful chemicals.
- **Biological Pollution-** which include pollen from plants, mite, hair from pets, fungi, parasites, and some bacteria.
- **Formaldehyde-** is a gas that comes mainly from carpets, particle boards, and insulation foam.

Impact of Indoor Air Pollution

- **On Health-** Indoor air pollution increases the potential of health risks such as respiratory illness, acute respiratory tract infection, stillbirth, lung cancer, leukemia etc. Indoor air pollution claims a million lives every year in India alone.

- **On Women, Aged and Young Children**- they are the most affected, as they spend the majority of their time in the home.
- **On Cognitive abilities of children**- Indoor air pollution significantly affects problem solving, mathematical abilities, IQ and learning capabilities in children.
- **On Overall Productivity**- as it aids in following lifestyle changes like fatigue, dizziness, allergies, hypersensitivity coughing, sinus congestion etc.
- **On Mortality**- As per a study, if all households transitioned to clean fuels, about 13% of premature mortality in India could be averted.

Measures to reduce indoor emissions

- **Public Awareness**- spreading awareness among people about the issue and the serious threat it poses to their health and wellbeing.
- **Change in pattern of fuel use**- including electricity, natural gas, LPG in urban areas; advanced biomass cooking, LPG and heating stoves in rural areas; substitution of coal by briquettes.
- **Energy efficiency for households**- Use incentives to improve the energy efficiency of household appliances, buildings, lighting, heating and cooling; encourage roof-top solar installations.
- **Improved Ventilation**- During construction of a house, importance should be given to adequate ventilation; for poorly ventilated houses, measures such as a window above the cooking stove and cross ventilation through doors should be instituted.
- **Inter-sectoral Coordination and Global Initiative**- Committed efforts between different sectors concerned with health, energy, environment, housing, and rural development.
- **Green Roofs**- that are planted with vegetation -- may improve the indoor air quality of commercial buildings.

Way Forward

- Tackling indoor air pollution and providing universal access to clean household energy is a great opportunity to improve health, reduce poverty, and protect the environment; thus, contributing significantly to achieving the Sustainable Development Goals (SDGs).

5.6. RIVER POLLUTION

Why in News?

Recently, National Green Tribunal (NGT) has appointed a **Central Monitoring Committee** to prepare and enforce a national plan for reducing polluted river stretches across the country.

More on news

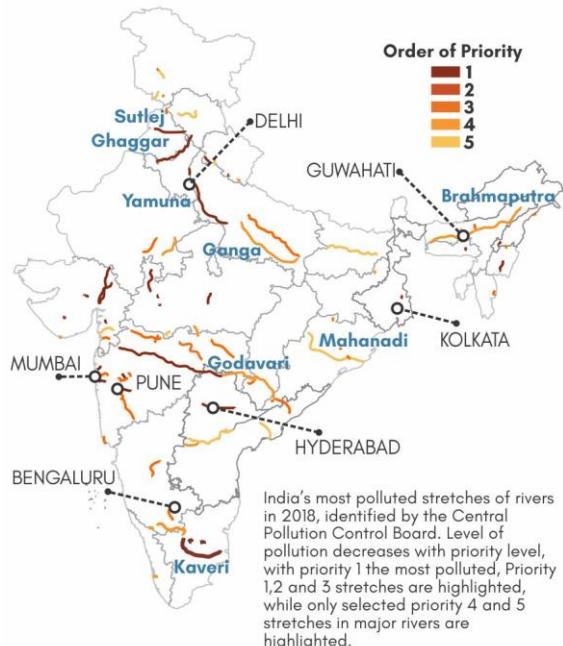
- The committee would comprise of:
 - representative of NITI Aayog;
 - secretaries of Ministry of Water Resources, Ministry of Urban Development and Ministry of Environment;
 - the director general of National Mission for Clean Ganga and
 - the Chairman of Central Pollution Control Board.
- **The committee would also co-ordinate with the River Rejuvenation Committees of the states** and oversee the execution of the action plans, taking into account the timelines, budgetary mechanism and other factors.
- CPCB will be nodal authority at national level, while Chief secretaries of states will be the nodal agency at state level.

Government Measures taken for improving Indoor Air Quality

- **National Programme for Improved Chulhas**
- **National Biomass Cookstoves Initiative**
- **Pradhan Mantri Ujjwala Yojana**
- **Neerdhur**- a novel multi-fuel domestic cooking stove, that apart from wood, other fuel like coal, cow dung and agricultural residue can also be used in it. It also saves 50% fuel and has high thermal efficiency.

INDIA'S MOST POLLUTED RIVER STRETCHES

Number of polluted stretches (Priority 1 indicates most polluted and 5 least polluted)



River pollution in India

- According to an assessment by the **Central Pollution Control Board (CPCB) in 2018**, there were **351 polluted river stretches (302 in 2015)** in the country, with 45 of them being critically polluted.
 - The CPCB considers a BOD less than 3 mg/l as an **indicator of a healthy river**.
 - Maharashtra, Assam and Gujarat account for 117 of the 351 polluted river stretches.
 - The increase in numbers reflected **higher pollution levels** and **increase in water quality monitoring stations**.
- A report by Central Water Commission has highlighted that 42 rivers in India have at least two toxic heavy metals in quantities beyond the permissible limit. Ganga was found to be polluted with five heavy metals—chromium, copper, nickel, lead and iron.
- Sources of river pollution:**
 - Point source pollution:** It refers to the pollution entering the water way through a discrete conveyance like pipes, channels etc., from source such as industry.
 - Non-point source pollution:** It refers to the pollution that does not enter the water way through a discrete source but is accumulative in nature. These pollutants are:
 - ✓ **Natural contaminants** such as dry leaves, dead insects and animals, bird droppings etc.
 - ✓ **Agricultural contaminants** such as agricultural runoff containing fertilizers, pesticides etc.
 - ✓ **Industrial contaminants** such as industrial runoff containing industrial wastes.
 - ✓ **Microbial contaminants** such as Faecal & Total Coliform, especially during Cultural Congregation like Kumbh in India.
 - ✓ **Human added contaminants** such as organic matter through domestic discharges.

Ways to Abate River Pollution

- The enforcement towards **recycling and reuse of waste water** after treatment should be strictly implemented.
- The drains shall discharge sufficiently treated effluent in proportion to self-cleaning capacity of rivers.
- Solid waste management** should also be clearly supported through policy initiatives and state of art technology for converting solid waste into useful resources.
- Suitable bioremediation measures** may be taken on drains of small towns and STPs may be installed at all big cities so that they shall not discharge untreated water directly to the river.
- Widespread and intense awareness programme** for the common public should be undertaken to inform them about the serious implications of river pollution.
- Provide sufficient water in the river for **ecological flow and dilution**. This can be made possible by:
 - Constructing storage structures at the upstream which can continuously release discharge for meeting dilution requirements.
 - Improving water use efficiency so that less diversion of water is needed for consumptive usage.

Steps taken to control river pollution

- National River Conservation Plan:** to reduce the pollution load in rivers through implementation of various pollution abatement works, thereby improving their water quality.
- National Water Monitoring Programme (NWMP):** Under it, CPCB monitors the water quality of both surface and ground water through a network of monitoring stations in the country.
- Namami Gange programme** for effective abatement of pollution, conservation and rejuvenation of National River Ganga
- In the **interim budget 2019-2020**, Government's unveiled **vision for 2030** which include clean rivers, with safe drinking water to all Indians, sustaining and nourishing life and efficient use of water in irrigation using micro-irrigation techniques.
- To assess the efficacy of river cleaning programmes, the CPCB has been ordered by NGT to launch a **nationwide programme on biodiversity monitoring and indexing of the rivers**.
 - NGT has also directed MoEFCC to consider giving **environmental awards** to institutions and states that comply with orders and ensure a reduction in pollution.

Related Information

Central Pollution Control Board (CPCB)

- It is the **statutory organization** constituted under the **Water (Prevention and Control of Pollution) Act, 1974**.
- Further, CPCB was entrusted with the powers and functions under the **Air (Prevention and Control of Pollution) Act, 1981**.
- It functions under the **Ministry of Environment, Forest and Climate Change**.

About NGT

- It has been established in 2010 under the **National Green Tribunal Act 2010**.
- It has been established for **effective and expeditious disposal** of cases relating to environmental protection and conservation of forests and other natural resources.
- The Tribunal is not bound by the procedure laid down under the Code of Civil Procedure, 1908, and is **guided by principles of natural justice**.
- It adjudicates matters relating to following Acts-
 - Water (Prevention and Control of Pollution) Act, 1974
 - Air (Prevention and Control of Pollution) Act, 1974
 - Environment (Protection) Act, 1986
 - The Public Liability Insurance Act, 1991
 - Forest Conservation Act
 - Biological Diversity Act

5.7. PEATLAND

Why In news?

Recently, **United Nations Environment Assembly** in Nairobi, Kenya, has adopted its **first ever resolution on peatlands**.

More on News

- The adoption of the **global resolution on the Conservation and Sustainable Management of Peatlands** urges member States and other stakeholders to give greater emphasis to the conservation, sustainable management and restoration of peatlands worldwide.
- However, it is **not legally binding**.

What are Peats?

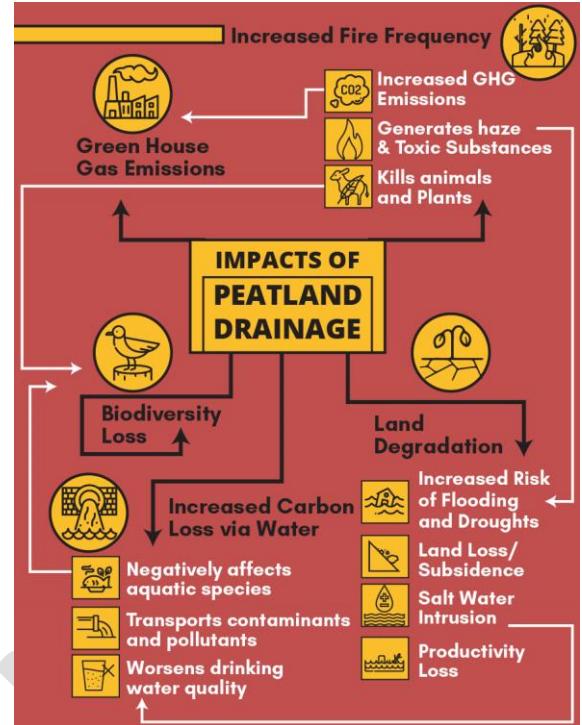
- Peats are a **heterogeneous mixture of plant material** (vascular plants, mosses and humus) that had accumulated in a **water-saturated area** and are only **partially decomposed** due to absence of oxygen.
- The natural areas covered by peat are called peatlands. Various types of peat are – swamp forests, fens, bogs or mires.
- They are **mostly found in permafrost regions** towards the poles and at high altitudes, **in coastal areas**, beneath **tropical rainforest and in boreal forests**. **Countries with largest peatland areas are** – Russia, Canada, Indonesia, USA, Finland etc.
- Several multilateral conventions take peatland into consideration such as UNFCCC, Ramsar Convention on Wetlands, Convention on Biodiversity and United Nation Convention to Combat Desertification.
 - **Brazzaville Declaration:** was signed to promote better management and conservation of Cuvette Centrale Region in Congo Basin in the backdrop of the 3rd Conference of Partners of the Global Peatlands Initiative (GPI), 2018.
 - **Global Peatlands Initiative:** is an effort by leading experts and institutions to save peatlands as the world's largest terrestrial organic carbon stock and to prevent it being emitted into the atmosphere. It is led by UN Environment.

Importance of Peatland

- **Carbon Storage:** Although they cover less than 3% of the global surface, estimates suggest that peatlands contain twice as much carbon as in the world's forest.
- **Supporting water cycle:** They regulate water flow, exert a cooling effect during hot periods through evaporation and cloud formation, play an important role in retention of pollutants and nutrients and water purification, counteract eutrophication of water bodies and also prevent intrusion of salt water.
- **Supporting unique and critically threatened biodiversity:** The tropical peatlands are home to a number of endangered species, including Sumatran tigers, gorillas and orangutans.
- **Supporting livelihood:** They are source of berries, mushrooms and medicinal plants in boreal and temperate regions and of non-timber forest products in tropical regions. Even the peat itself is used as fuel.
- **As a cultural landscape and archive:** They hold some of the most evocative archeological discoveries of last decades such as 4th millennium BCE footpath 'sweet tracks'. They also record environmental changes.

Threats to Peatlands

- Drainage for agriculture:** Drained peatlands are mainly used for agriculture and forestry, and peat is extracted for horticulture and energy production. CO₂ emissions from drained peatlands are estimated at 1.3 gigatonnes of CO₂ annually. This is equivalent to 5.6% of global anthropogenic CO₂ emissions.
- Commercial Forestry:** It is the second greatest cause of land-use changes in peatland mostly prevalent in Scandinavian countries, UK, Russia, South-East Asia etc.
- Peat extraction and usage:** Peat as a source of energy is being used on a large scale by households. It is also used as raw material for producing growing media for professional horticulture and for home gardening.
- Infrastructure Development:** Conversion of peatlands in coastal areas to meet the urban development, waste disposal needs, development of roads and other infrastructure.



Way forward

- A **landscape approach is vital and good practices** in peatland management and restoration must be shared and implemented across all peatland landscapes to save these threatened ecosystems and their services to people.
 - Rewetting:** It is an essential step in the restoration of Peatlands as they rely on waterlogged conditions for their survival.
 - Plaudiculture and sustainable management techniques:** It is a practice of crop production on wet soils, predominantly in peatlands. Other sustainable techniques could be cultivation of fish or pursuit of ecotourism.
- Legal and Fiscal environment and Polices:** Various policies that have been put in place both at global as well domestic levels should be implemented properly.
 - Local communities should receive support** to sustainably manage their peatlands by preserving traditional non-destructive uses and introducing innovative management alternatives.
- Creating a market to finance peatland management:** Using Funding mechanism such as Green Bonds, private capital (equity and debt), funding from government sources etc.
- Institutional framework** for coordinated action: Integrated global partnerships should be established.
- Restricting new agriculture & industrial activities** that threaten their long-term viability and developing long-term land use policies which favour conservation and protection of peatlands.
- Capacity building:** Focused action is required with support from developed countries for capacity building, outreach and awareness raising.
- A **comprehensive mapping of peatlands worldwide** is essential to better understanding their extent and status, and to enable us to safeguard them.

5.8. GLOBAL ASSESSMENT REPORT ON BIODIVERSITY AND ECOSYSTEM SERVICES

Why in news?

Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services (IPBES) released its global assessment report on biodiversity and ecosystem services.

Details

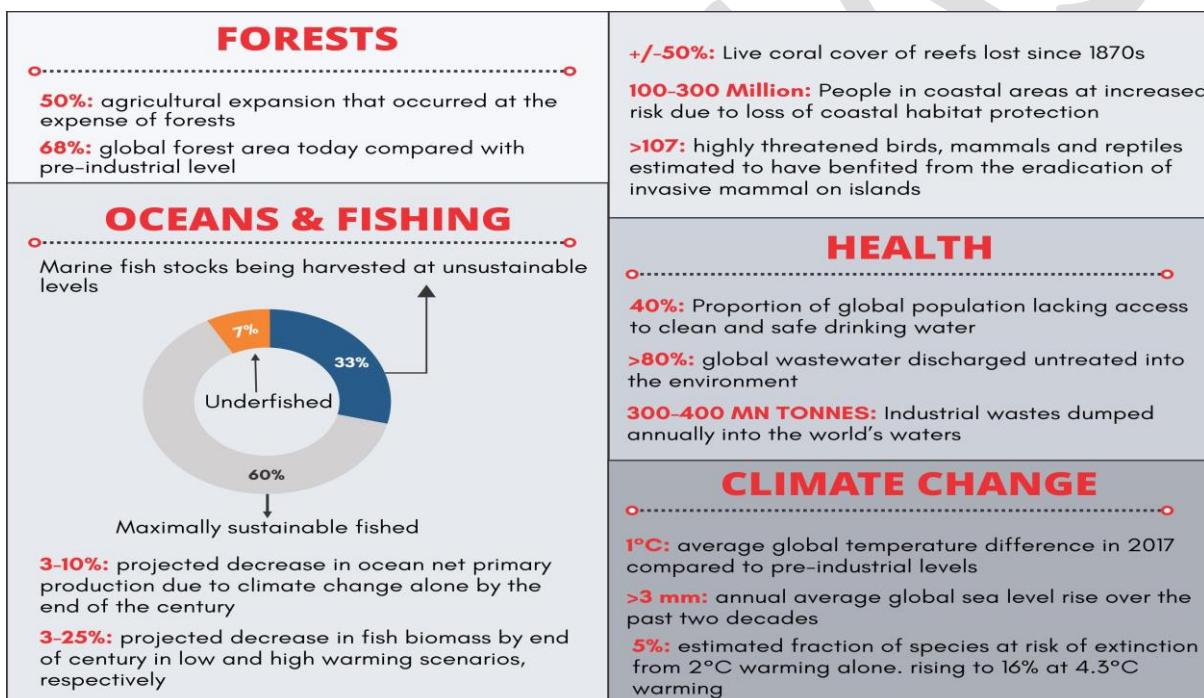
- It's a first-of-its-kind report released by the **IPBES**, which is being hailed as the most comprehensive scientific evaluation ever made of the state of our nature, and gives a detailed account of health of the species that inhabit this earth.

- According to the report, the rate of global change in nature during the past 50 years is unprecedented in human history. The **direct drivers of change** in nature with the largest global impact have been (starting with those with most impact): **changes in land and sea use; direct exploitation of organisms; climate change; pollution; and invasion of alien species.** These five direct drivers result from an array of underlying causes – the indirect drivers of change.
- It says that **75% of Earth's land surface** and **66% marine environments** have been “significantly altered”, and that “over **85%** of wetland area had been lost.
- However, on an average, these trends were **less severe** on areas controlled or managed by **indigenous people and local communities.**

About IPBES

- It is an independent intergovernmental body, established by member States in 2012.
- India is a member.
- The objective of IPBES is to strengthen the science-policy interface for biodiversity and ecosystem services for the conservation and sustainable use of biodiversity, long-term human well-being and sustainable development.
- It is very similar in composition and functioning to the Intergovernmental Panel on Climate Change (IPCC).
- Like IPCC, IPBES does not produce any new science, it only evaluates existing scientific knowledge to make assessments and projections.

Impact of Humans on Nature



5.9. ECOLOGICAL SANITATION

Why in news?

There have been calls for greater adoption of Ecological Sanitation toilets under the Swatchh Bharat Abhiyan.

About Ecological Sanitation (Ecosan)

Challenges Faced

- Lack of Participation
- Lack of Understanding
- Defective materials and workmanship
- Improper maintenance

- Ecosan is a concept that treats various types of waste generated by humans as a **resource**, which can be safely **collected, treated and reused** to prevent pollution of water bodies and the environment. E.g. Ecosan toilets, compost pit, biogas plants, reed-beds for treatment of wastewater.
- The underlying aim is to close (local) nutrient and water cycles with as less expenditure on material and energy as possible to contribute to a sustainable development.
- The Ecosan is a dry toilet built on a raised platform, listed in the Swachh Bharat Mission's guidelines as suitable for dry areas with scarce water supply, coastal and flood-prone areas with high water tables, and rocky areas. But it has very few takers, due to the Swachh Bharat Mission's focus on pit toilets.

- In Ecosan Toilets, human excreta, urine and wash water are separated through specially designed toilet seats unlike the conventional water closets where all these are collected together.

5.10. ANIMAL CRUELTY ISSUES NOW UNDER FARM MINISTRY

Why in News?

Recently the Central Government has transferred **administrative control** and matters concerning **cow shelters, Prevention of cruelty to animals and its governing laws**, from MoEF&CC to Ministry of Agriculture and Farmer's Welfare.

Background

- The Prevention of Cruelty to Animals Act (PCA) was originally administered by the **Ministry of Agriculture** after being enacted in 1960.
- It was transferred to the Ministry of Environment later when the government felt that **the law that regulates animal agriculture should be kept at an arm's length distance from the ministry whose sole purpose is to increase production.**
- **Officials have called this measure a matter of administrative convenience as it has already been dealing with livestock issues such as loss of livestock due to natural calamities etc.**

Prevention of Cruelty to Animals Act, 1960

- It was enacted to prevent the infliction of unnecessary pain or suffering on animals and to amend the laws relating to the **prevention of cruelty to animals**.
- **The Animal Welfare Board of India was formed under this Act.**
- **Section 22** of the PCA Act restricts the **exhibition and training of performing animals** - as per the list maintained by the **central government**.
- MoEF published Gazette notifications under the PCA Act, in 2017, to regulate **dog breeders, animal markets, and aquarium and pet fish shop owners**.
- Central Government also brought **out Prevention of Cruelty to Animals (Regulation of Livestock Market) Rules, 2017** which imposes ban of sale of cattle in animal markets for the purpose of slaughter.

Animal Welfare Board of India

- It is headquartered in **Haryana**.
- **Rukmini Devi Arundale** was instrumental in setting up the board and was its first chairman.
- It is generally chaired by a senior government official.
- The Board oversees **Animal Welfare Organisations (AWOs)** by granting recognition to them if they meet its guidelines.
- **Other functions include:** Providing financial assistance to recognised AWOs, prescribing changes to animal welfare laws and rules, raising awareness among the public.

5.11. FINANCING FOR SUSTAINABLE DEVELOPMENT REPORT 2019

Why in news?

Recently, the Inter-agency Task Force on Financing for Development has released its fourth report titled, '**Financing for Sustainable Development Report 2019**'.

Context

- The **Sustainable Development Goals (SDGs)** were adopted by the 193-member countries of the United Nations with quantitative and qualitative targets and timelines through to 2030. Mobilizing

Addis Ababa Action Agenda (AAAA)

- It is a **new global framework** for financing sustainable development that aligns all financing flows and policies with economic, social and environmental priorities and ensures that financing is stable and sustainable.
- It lays out the steps the international community promises to take to fund the world's new sustainable development agenda.
- It was adopted after being agreed at the **3rd International Conference on Financing for Development in 2015**. It entered into implementation in 2016.
- There are **seven action areas in this agenda-**
 - Domestic public resources
 - Domestic and international private business and finance
 - International development cooperation
 - International trade as an engine for development
 - Debt and debt sustainability
 - Addressing systemic issues
 - Science, technology, innovation, and capacity building
- There is an annual **Economic and Social Council forum on Financing for Development** and an **Inter-Agency task force**, which reports annually on progress in implementing the financing for development outcomes and the means of implementation of the post 2015 development agenda.

- sufficient financing remains a major challenge in implementing them.
- Recent estimates indicate that the SDGs will require an **additional US\$2.4 trillion of annual public and private investment** into the low-carbon infrastructure, energy, agriculture, health, education and other sustainability sectors globally.

Details about the report

- The **Inter-Agency Task Force on Financing for Development**, convened by the Secretary-General to **follow up** on the **Addis Ababa Action Agenda**, comprises of over 50 United Nations agencies, programmes and offices, regional economic commissions and other relevant international institutions
- This report puts forward key messages and policy recommendations targeted at helping achieve tangible progress on financing for sustainable development in 2019 and beyond.
- Important Recommendations include –**
 - boosting public resources which include establishment of a new social contract, based on a more equitable and inclusive society with fair contributions by all.
 - boosting private business and finance which includes creating incentives to foster greater sustainable investing and building inclusive financial systems.
 - boosting international development cooperation
 - boosting international trade as an engine for development which includes expeditiously implementing the Ministerial Decisions on preferential rules of origin for LDCs.
 - boosting science, technology and innovation.

5.12. COALITION FOR DISASTER RESILIENT INFRASTRUCTURE

Why in news?

India has pledged Rs 480 crore to setup global “**Coalition for Disaster resilient Infrastructure**”.

Background

- India announced the **creation of a Coalition for Disaster Resilient Infrastructure (CDRI)** after the **Asian Ministerial Conference on Disaster Risk Reduction** (2016), held in New Delhi.
- At the **International Workshop on Disaster Resilient Infrastructure (2019)** held at New Delhi, agreement was reached among representatives from 33 countries to establish a Coalition for Disaster Resilient Infrastructure.
- The CDRI is envisaged as a **knowledge exchange and capacity development partnership**. The coalition will work towards developing **common standards** in infrastructure building, financial and compliance mechanisms, appropriate governance arrangements, and invest in R&D that will also determine funding from multilateral banks onwards future investments by countries.

Second International Workshop on Disaster Resilient Infrastructure

It was organised at Delhi by the National Disaster Management Authority (NDMA) in collaboration with **United Nations Office for Disaster Risk Reduction (UNISDR)**, and in partnership with the **Global Commission on Adaptation, United Nations Development Programme and the World Bank**.

What is Disaster Resilient Infrastructure?

Infrastructure that can stand any huge damage from any kind of natural disaster is known as **Disaster Resilient Infrastructure**. It encompasses structural and non-structural measures.

- Structural Measures** involve adjusting engineering designs and standards to reflect disaster risk such as flood control systems, protective embankments, seawall rehabilitation, and retrofitting of buildings.
- Non-structural measures** refer to risk-sensitive planning, enabling institutional frameworks, hazard mapping, ecosystem-based management, and disaster risk financing.

Why DRI?

- India suffered losses of \$80 billion during the 20-year period. Globally, disaster losses are estimated at \$520 billion per annum, pushing more than 26 million people into poverty every year.
- An estimate suggests that India needs about \$1.5 trillion investment in the infrastructure sector in the coming 10 years which is going to pose a challenge since the country is prone to many disasters like earthquakes, floods, cyclones, etc.

- **Sendai Framework for Disaster Risk Reduction (2015-2030)** identifies investing in Disaster Risk Reduction (DRR) for resilience and to “**build back better**” in reconstruction as priorities.
- PM’s **10-point agenda** announced during **Asian Ministerial Conference on Disaster Risk Reduction (2016)**, talks about ‘working to ensure that all development projects are built to appropriate standards and contribute to the resilience of communities they seek to serve.’
- **SDG Goal 9** recognizes disaster resilient infrastructure as a crucial driver of economic growth and development.

Steps to be taken

Primarily, there needs to be efforts in four broad thematic areas which include:

- **On Disaster Risk Assessment:** It would require good, time-series data on past hazards patterns (e.g. wind speeds, high flood levels) and capability to analyse this data to generate probabilistic risk assessments that can guide investment in disaster resilient infrastructure.
- **On standards of design & implementation:** The national frameworks for design and construction standards must reflect the evolving understanding of natural hazards as well as advancements in engineering technologies.
- **On financing new infrastructure and mechanisms for covering risks:** Disaster Risk Financing strategy could include budget reserve funds as well as disaster risk transfer instruments like catastrophic bonds.
- **On reconstruction and recovery of infrastructure after disasters:** The “Build Back Better” principle must be followed not only for the structural design of the infrastructure but also in terms of management systems around it.

5.13. UNESCO GLOBAL GEOPARKS

Why in news?

Geological Survey of India (GSI) chose heritage locations in Maharashtra and Karnataka for UNESCO Global Geopark Network site status.

What is UNESCO Global Geopark Network Status?

- UNESCO Global Geoparks are **single, unified geographical** areas where sites and landscapes of international **geological significance** are managed with a holistic concept of protection, education and sustainable development.
- It aims to **enhance awareness and understanding** of key issues facing society, such as using our earth’s resources sustainably, mitigating the effects of climate change and reducing natural disasters-related risks.
- The **Global Geoparks Network (GGN)** is a legally constituted not-for-profit organisation. Its membership is obligatory for UNESCO Global Geoparks.
- An aspiring Global Geopark must have a dedicated website, a corporate identity, comprehensive management plan, protection plans, finance, and partnerships for it to be accepted.
- At present, there are about 140 UNESCO Global Geoparks in 38 countries. As of now there is **no geo-heritage site from India** which is included under UNESCO Geopark Network.

About the sites chosen

- **St. Mary’s Island and Malpe Beach in Karnataka** is a hexagonal **mosaic of basaltic rocks** in an island off Udupi. It is estimated to be an **88-million-yearold** formation that goes back to a time when Greater India broke away from Madagascar and was declared a national geo-heritage site in 1975.
- **Lonar Lake in Maharashtra** is the **world's oldest meteoric crater** formed around 50,000 years ago and the only one formed in basalt rock. It is a salt water lake and was declared a national geo-heritage site in 1979.

5.14. SUMMER PLOUGHING

Why in News?

Recently **concept of Summer Ploughing** has been gaining traction among the farmers for soil conservation.

About Summer Ploughing

- It is defined as the ploughing the field **across the slope** during hot summer with the help of specialized tools with **primary objective** of opening of the soil crust accompanied by **deep ploughing** and simultaneously **overturning of the soil** underneath to disinfect it with the help of piercing sun rays.
- The ploughing activity is taken up in the direction perpendicular to the natural flow of water/gradient or wind flow so that **soil erosion is arrested** and whatever small quantum of rain received gets into the soil preserving it for the crop to be sown during kharif.
- It is done **one month in advance** i.e. in the month of May for Kharif crops.

Benefits of summer ploughing

- Increased permeability of Soil:** this further increases in-situ moisture conservation. Consequently, plant roots will get more moisture with less effort.
- Improves Soil structure:** It improves soil structure due to **alternate drying and cooling**. Tillage **improves soil aeration** which helps in multiplication of micro-organisms. Organic matter decomposition is hastened resulting in higher nutrient availability to the plants.
- Reduced toxicity:** Increased aeration also helps in **degradation of herbicide and pesticide residues and harmful allelopathic chemicals exuded** by root of previous crops or weeds which inhibit the growth of other nearby plants.
- Reducing hazards of insects and pests:** Lot of insects and pests hibernate underneath the soil crust or stubbles during hot summer season. Due to overturning of the soil in summer ploughing the sharp rays of sun enters the soil and kills the eggs, larvae and pupae of soil borne insects and pests. It is also an important method to **control nematodes**.
- Weeds Control:** Deep ploughing and overturning **uproots the weeds**. Consequently, the roots and stems of the weeds get desiccated and die. As a result, weed control and less application of weedicides is one of the major advantages of summer ploughing.

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for MAINS 2019 Starting from 17th Mar

for MAINS 2020 Starting from 12th May

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6. SOCIAL ISSUES

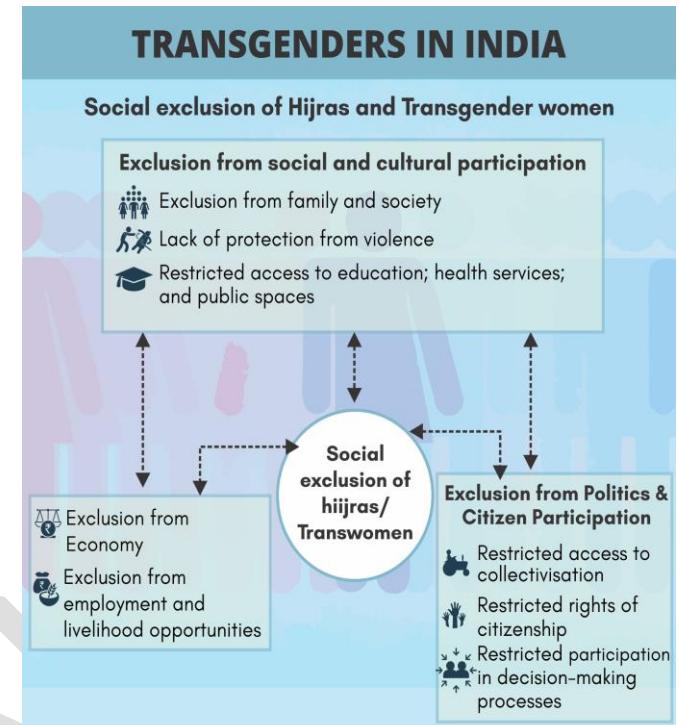
6.1. TRANSGENDER RIGHTS

Why in news?

In the judgment delivered in **Arunkumar and Sreeja v. Inspector General of Registration and Others (2019)**, the Madras High Court, has extended enjoyment of civil rights, especially those pertaining to marriage, to transpersons.

Background

- The term '**transgender**' refers to all those who differ in behaviour and appearance from the usual gender stereotypes. It **includes** transsexuals, transvestites (cross-dressers), intersexed individuals and gender queers. In the Indian context, it also includes social identities such as hijras, kinnars, aravanis, jogtas, Shivshaktis and aradhis.
- In 1861, **Section 377** came into force during British rule, which **criminalised** sexual activities "**against the order of nature**".
- Last year, in a landmark verdict a constitutional bench of Supreme Court in **Navtej Singh Johar v/s Union of India** case declared parts of Section 377 of IPC as **unconstitutional**.
- Naturally after this, there exist various legal rights and other rights extendable to transgenders. But, they were not examined by the Supreme Court.
- Now, the Madurai Bench judgment has **revised the legal construction of gender** and the conventional interpretation of terms such as "**bride**" and "**bridegroom**" found in the **Hindu Marriage Act**. The court has held that a **properly solemnised marriage between a male and transwoman** is valid under the **Hindu Marriage Act, 1955**, and the Registrar of Marriages is bound to register the same.



Other steps taken towards empowerment of LGBTQ

- Transgender Persons (Protection of Rights) Bill, 2016:** It defines a transgender person and prohibits discrimination in areas such as education, employment, and healthcare. It also provides for constituting a National Council for Transgender headed by the Union Ministry of Social Justice and Empowerment.
- Tamil Nadu-** provided for education, identity cards and subsidized food and free housing. Also the government established a transgender welfare board in 2008 (West Bengal, Maharashtra, Chhattisgarh and Karnataka have also established the board)
- Kerala-** Government brought the '**State Policy for Transgenders in Kerala 2015**' to provide the "right to live with dignity."

Rationale given by the court

- The court refers to **NALSA v. Union of India (2014)**, which held that transgender persons have the right to decide their "**self-identified gender**".
- This led to court to interpret that, there **cannot be a legal bar any more** to extending civil rights such as marriage, succession or inheritance to LGBTQ couples who have decided to get married consensually, have married in accordance with the existing laws and **are not in violation of any other laws**.

Significance of the judgment

- Empowers with right-based approach-** Now, legally transgender can enter into a marriage, have spouse and setup their own family in India. They have been provided right to marry and right to a family along with right of sexual orientation.
- Helps in mainstreaming of transgender-** as It will put an end to the discrimination that many millions faced because of their sexual orientation or gender identity for so many years.

- **Boosts dignity and respect-** It will help transpersons to marry with dignity- e.g. in March 2018, a transsexual couple Preethisha and Premkumaran had embraced self-respect marriage conceived by Dravidian legend Periyar E V Ramasamy after they were shunned by temples which refused to solemnize their coming together.
- **Opens up a Pandora box-** where apart from marriage, all other civil rights could be given to them on the same premises used here.

Way Forward

- Legal and the law enforcement systems need to be empowered and sensitized on the issues of Transgender community. Special Grievance Redressal Cells for their protection should be set up in all police stations.
- India should work towards legislation related to right to self-determination. Other such rights can be adopted as identified in the **Yogyakarta Principles**. The Supreme Court in the NALSA judgement had recognised Yogyakarta Principles and had ruled that they should be applied as a part of Indian law.
 - The Yogyakarta Principles are a set of principles on the application of international human rights law in relation to sexual orientation and gender identity.

6.2. LEARNING OUTCOMES-BASED CURRICULUM FRAMEWORK

Why in news?

Universities are revising all of its undergraduate programmes along the lines of **UGC's Learning Outcome-based Curriculum Framework (LOCF)**, which is being opposed by some teachers particularly in Delhi University.

What is LOCF?

- LOCF guidelines, issued by UGC in 2018, aims to **specify what graduates are expected to know, understand and be able to do at the end of their programme of study**. This is to make student active learner and teacher a good facilitator.
- The outcomes will be determined in terms of **skills, knowledge, understanding, employability, graduate attributes, attitudes, values, etc.**, gained by students upon the completion of the course.
- This is to be done within framework of **Choice Based Credit System (CBCS), introduced in 2015**.

Overall objectives of the learning outcomes-based curriculum framework

- Help **formulate graduate attributes**, qualification descriptors, programme learning outcomes and course learning outcomes that are **expected to be demonstrated by the holder of a qualification**;
- Enable prospective students, parents, employers and others to understand the nature and level of learning outcomes (**knowledge, skills, attitudes and values**) or attributes a graduate of a programme should be capable of demonstrating on successful completion of the programme of study;
- Maintain national standards and international comparability of learning outcomes and academic standards to ensure global competitiveness, and to **facilitate student/graduate mobility**; and
- Provide higher education institutions an **important point of reference** for designing teaching-learning strategies, assessing student learning levels, and periodic review of programmes and academic standards.

University Grants Commission (UGC)

- It is a **statutory body**, established in **1956** with mandate of coordination, determination and maintenance of standards in institutions of **higher education**.
- It provides **recognition** to universities in India, and **disburses funds** to such recognized universities and colleges.
- **Higher Education Commission of India (HECI) bill**, 2018 seeks to replace UGC by Higher Education Commission of India.

Choice Based Credit System

- It is a '**cafeteria**' type approach in which the students can choose courses of their choice, from unrelated discipline, in addition to the compulsory courses.
- Besides the core subjects, CBCS offers opportunities to **explore and learn other subjects** for holistic development of an individual, giving **interdisciplinary approach** to learning.

Why LOCF being opposed?

- Frequent changes in curriculum, as this is fifth change in last nine years including **switch from the traditional annual mode to the semester mode, introduction of CBCS**.
- These changes, introduced to **improve quality of education and world ranking**, are leading to opposite outcomes, as introduced without warning and timeframe.
- These changes have **disrupted the functioning of the system**, causing confusion among students.

6.3. NATIONAL INSTITUTIONAL RANKINGS FRAMEWORK 2019

Why in News?

Recently the **Indian Institute of Technology (IIT) Madras** has topped the list of higher education institutes in the National Institutional Rankings Framework list of 2019.

About NIRF

- The National Institutional Ranking Framework (NIRF) was developed in 2015 by a 16-member Core Committee, appointed by the **Ministry of Human resource and Development**. The rankings are published annually since 2016.
- It outlines a methodology to rank educational institutions across the country based on **five** broad parameters —
 - Teaching, learning and resources;
 - Research and professional practice;
 - Graduation outcomes;
 - Outreach and inclusivity; and
 - Perception.
- The ministry also constituted an **Implementation Core Committee** to oversee the implementation of the overall NIRF rankings.
- Significance**
 - A ranking system fosters a spirit of healthy competition between institution in terms of **teaching talent, research talent, the most talented students, and most enlightened administrators**.
 - Institutions- Colleges and Universities have even set up **special committees** to look into their performance and take measures to improve their rankings.

NIRF 2019		
Categories	Top Institution	
Overall	Indian Institute of Technology, Madras	
Universities	Indian Institute of Science, Bengaluru	
Colleges	Miranda House, New Delhi	
Engineering	Indian Institute of Technology Madras	
Management	Indian Institute of Management, Bangalore	
Pharmacy	Jamia Hamdard, New Delhi	
Law	National Law School of India University, Karnataka	
Architecture	Indian Institute of Technology, Kharagpur	
Medical	All India Institute of Medical Sciences, Delhi	

6.4. EAT- LANCET COMMISSIONS FOOD PLANET HEALTH REPORT RELEASED IN INDIA

Why in news?

EAT Lancet commission's Food Planet Health report was formally released in India.

Background

- Global food production** of calories has kept pace with population growth, yet more than **820 million people** still lack sufficient food, and many consume either low-quality diets or too much food.
- On the other hand, global **food production practices** constitute the **single largest driver of environmental degradation and transgression of planetary boundaries** with deforestation, conversion of forest land to agricultural ones, emission of GHGs, extraction of water resources, overuse and misuse of fertilizers and pesticides etc.
- To address the both, a radical transformation of the **global food system** is needed. The shift to healthy diet is likely to **prevent approximately 11 million deaths per year**, along with major environmental benefits.

Related Information

- EAT** is the science-based global platform for food system.
- Lancet** is a peer-reviewed general medical journal.

Planetary boundaries

- They represent a system or process that is important for regulating and maintaining stability of the planet.
- They define **global biophysical limits** that humanity should operate within to ensure a stable and resilient Earth system—i.e. conditions that are necessary to foster prosperity for future generations.
- There are **nine planetary boundaries**-
 - Climate change
 - Bio diversity loss
 - Biogeochemical flows
 - Ocean acidification
 - Land use change
 - Freshwater use
 - Ozone depletion
 - Atmospheric aerosols
 - Chemical pollution

- The report for the first time proposed **scientific targets for what constitutes a healthy diet** derived from a sustainable food system.

Key highlights of the report

The report suggested **Five Strategies for a Great Food Transformation.**

- Seek international and national commitment to shift toward healthy diets:** like increased consumption of plant-based foods – including fruits, vegetables, nuts, seeds and whole grains – and limiting animal source foods. This to be achieved by making healthy foods more available, accessible and affordable.
- Reorient agricultural priorities from producing high quantities of food to producing healthy food:** which includes producing a diversity of foods that nurture human health and support environmental sustainability.
- Sustainably intensify food production to increase high-quality output:** A new agricultural revolution which includes at least a 75% reduction of yield gaps on current cropland, implementing climate mitigation options including changes in crop and feed management, and enhancing biodiversity within agricultural systems. Also, to achieve negative emissions globally as per the Paris Agreement, making the global food system **a net carbon sink from 2040** onward.
- Strong and coordinated governance of land and oceans:** which includes **zero-expansion policy** of new agricultural land into natural ecosystems and species-rich forests, restoring and reforesting degraded land and establishing international land use governance mechanisms. It also includes adopting a "**Half Earth**" strategy for biodiversity conservation (i.e. conserve at least 80% of preindustrial species richness by protecting the remaining 50% of Earth as intact ecosystems).
- At least halve food losses and waste, in line with UN SDGs:** at the production side and at the consumption side. Both **technological solutions** applied along the food supply chain and **implementation of public policies** are required.

6.5. STATE OF WORLD POPULATION REPORT, 2019

Why in news?

United Nations Population Fund (UNFPA) recently released the 2019 edition of the **State of World Population** report titled '**Unfinished Business: the pursuit of rights and choices for all**'.

Highlights of the report

- The 2019 State of the World Population Report reflects on the **current state of sexual and reproductive health**.
 - The year 2019 marks the 50th anniversary of UNFPA's founding and the 25th anniversary the International Conference on Population and Development in Cairo.
- The report includes, for the first time, data on women's ability to make decisions over three key areas: sexual intercourse with their partner, contraception use and health care.
 - Women's sexual and reproductive autonomy was greatest in two countries: the Philippines and Ukraine, where 81 per cent of women are empowered to make these decisions for themselves.
- The report identifies **major barriers to achieving sexual and reproductive health and rights for all** in 2019, including a lack of access to modern contraceptives and sexual and reproductive health services, and struggles with gender inequality which diminishes power to make choices about our lives and future.
- The **world's population rose to 7.715 billion in 2019**, up from 7.633 billion the year before, with the average life expectancy remaining 72 years.

About UNFPA

- It is United Nations sexual and reproductive health agency.
- UNFPA calls for the realization of reproductive rights for all and supports access to a wide range of sexual and reproductive health services including voluntary family planning, maternal health care and comprehensive sexuality education.

About International Conference on Population and Development, 1994

- At the ICPD in Cairo, 179 countries adopted a forward-looking, 20-year Programme of Action (extended in 2010) which recognized that reproductive health and rights, as well as women's empowerment and gender equality, are cornerstones of population and development programmes.

- **India specific findings:**

- India accounts for over **one-sixth** of the world's population in 2019 (1.37 billion out of 7.71 billion) and has grown at an average of 1.2 per cent annually between 2010 and 2019, more than double the annual growth rate of China.
- While 67 per cent of the country's population was in the 15-64 age bracket, 6 per cent of the country's population was of the age 65 and above.
- The **total fertility rate per woman declined** from 5.6 in 1969 to 2.3 in 2019.
- While India's **life expectancy at birth is lower than the world's** (69 years to 72), it scores higher than the global average in terms of access to healthcare during childbirth, and also has a much lower adolescent birth rate.

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समसामयिकी
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इन कक्षाओं का उद्देश्य जटिल समसामयिकी मुद्दों, जिन्हें कवर करने की आपेक्षा उम्मीदवारों से की जाती है, की एक विस्तृत विषय-वार समझ विकसित करना है।

तमाम समसामयिक मुद्दों की सर्वाधिक अद्यतित प्रारंभिक समझ, जिसमें भारतीय राजव्यवस्था और संविधान, शासन (गवर्नेंस), अर्थव्यवस्था, समाज, अंतर्राष्ट्रीय संबंध, संस्कृति, पारिस्थितिकी और पर्यावरण, सुरक्षा, विज्ञान एवं प्रौद्योगिकी तथा विविध विषयों के अतिरिक्त और भी बहुत कुछ सम्मिलित हैं।

इस कोर्स (35–40 कक्षाएं) में विभिन्न मानक स्रोतों, जैसे— द हिंदू, इंडियन एक्सप्रेस, विजनेस स्टैंडर्ड, PIB, PRS, AIR, राज्य सभा / लोक सभा दीर्घी, योजना आदि से महत्वपूर्ण सामायिक मुद्दों को शामिल किया जाएगा।

प्रत्येक टॉपिक के बाद MCQ तथा मुख्य परीक्षा के लिए संभावित प्रश्नों के माध्यम से आपकी समझ का आकलन।

“टॉक टू एक्सपर्ट” के माध्यम से और कक्षा में ऑफलाइन व्याख्यान के दौरान चर्चा और विचार-विमर्श हेतु अवसर।

प्रत्येक पखवाड़े में दो से तीन कक्षाएं आयोजित की जाएंगी। समय-समय पर मेल के माध्यम से शेड्यूल साझा किया जाएगा।

7. SCIENCE AND TECHNOLOGY

7.1. BLACK HOLE

Why in news?

Recently, the Event Horizon Telescope revealed the **first ever photograph of the shadow of a black hole**.

About Black Hole

- A black hole is a region of space-time, which exhibits the **property of extremely intense gravitational force**, which is so strong, that **nothing, not even light**, can escape it.
- Black holes were predicted by the **Einstein's theory of general relativity**, which showed that when a massive star dies, it leaves behind a **small, dense remnant core**.
- If the core's mass is more than about three times the mass of the Sun, the force of gravity overwhelms all other forces and **produces a black hole**.
- In the center of a black hole is a **gravitational singularity**, a one-dimensional point which contains a **huge mass in an infinitely small space**, where **density and gravity become infinite and space-time curves infinitely**, and the laws of physics as we know them **cease to operate**.
- Black holes **cannot be directly observed** because they themselves do not emit or radiate light, or any other electromagnetic waves that can be detected by instruments built by human beings. But the area just outside the boundary of the black hole (**Event Horizon**), which has vast amounts of gas, clouds and plasma swirling violently, **emit all kinds of radiations**, including even visible light. Hence, the **presence of black holes can be inferred** by detecting their effect on other matter nearby them.
- Now, the **Event Horizon Telescope** has captured the **just outside region** of a black hole, located 55 million light-years from Earth, at the centre of a galaxy named **Messier 87**. The image shows a **photon (light quantum)** can orbit the black hole without falling in. This is called the '**last photon ring**'.

Event Horizon Telescope (EHT)

- A long-standing goal in **astrophysics** is to **directly observe** the immediate environment of a black hole. The '**event horizon**' is the boundary defining the region of space around a black hole from which nothing can escape.
- The EHT is an **international collaboration** to continue the progress in achieving this goal, using the technique of **Very Long Baseline Interferometry (VLBI)** at short wavelengths.
- In this technique, a network of **8 ground-based radio telescopes** have been linked and exploit the rotation of our planet to form one **virtual Earth-size telescope** observing at a wavelength of 1.3 mm.

Significance

- **Observed the unseeable-** For centuries, the concept of black hole has only been **theorized**, without any actual evidence of it. This is a remarkable confirmation of more than a century of theoretical work.
- **Capturing the event horizon requires perfection-** because the black hole is very small as compared to other celestial bodies and the light has to pass through all sorts of gases and material of the space and the Earth's atmosphere. The telescopes of EHT also have to synchronize in a perfect manner to be able to make simultaneous recordings of the radiations coming in from the black hole region.
- **Better understanding of the universe-** Scientists can compare the actual image with computer-simulated images used earlier to ascertain the differences, which could be explained by instrumentation, observation or other errors. This can provide a test for existing theories of the universe, and lead to a better understanding of black holes and the nature of the universe itself.
- **Enhances the understanding of gravitational force-** which can be useful for the Global Positioning Satellites in order to make them accurate to more than a few metres.

7.2. CHANDRAYAAN-2

Why in News?

ISRO is planning to launch Chandrayaan-2 mission by mid-July 2019.

Details

- **Chandrayaan-2** is a completely indigenous mission comprising of an **Orbiter, Lander (called Vikram) and Rover (called Pragyan)**.

- It will be launched by **Geosynchronous Satellite Launch Vehicle Mk III (GSLV-F10)**.
- It will be ISRO's **first inter-planetary mission to land a rover** on any celestial body.
- The mission will attempt to **soft land a rover** 600km from the lunar south pole.
 - Only **three countries have ever soft-landed** on the moon— the United States, the U.S.S.R. and China.
- **Primary Objective:** To demonstrate the ability to soft-land on the lunar surface and operate a robotic rover on the surface.
- **Scientific Goals** include studies of lunar topography, mineralogy, elemental abundance, the lunar exosphere, and signatures of hydroxyl and water ice.
- **Scientific Payload:** It comprises a visible terrain mapping camera, a neutral mass spectrometer, a synthetic aperture radar, a near infrared spectrometer, a radio occultation experiment, a soft X-ray spectrometer and solar X-ray monitor.
 - The lander will carry a camera, seismometer, thermal profiler, and Langmuir probe, while the rover will hold cameras, alpha-proton X-ray spectrometer, and a laser-induced ablation spectroscopy experiment to analyse the lunar soil.
 - It will also carry **NASA-owned laser retroreflector arrays** that allow scientists to make precise measurements of the distance to the Moon.

Related News

About Chandrayan-1

- Chandrayan-1 was launched by India in October, 2009 using **PSLV-C11**.
- **Primary Objective:** To prepare a three-dimensional atlas of both near and far side of the moon and chemical, mineralogical and photo-geological mapping of moon.

Findings of Chandrayan-1

- **Detection of Water** – Major finding was the detection of Water (H_2O) and Hydroxyl (OH) on the surface of the moon. The data revealed its presence in abundance around the polar region.
- **Magma Ocean Hypothesis** – It confirmed the Ocean Magma Hypothesis i.e. the moon was once completely in molten state.
- **New Spinel-rich Rock** – Data from Chandrayaan-1 have led to detection of new spinel-rich rock type on lunar far-side.
- **X-Ray signals detected**– It detected x-ray signals during weak solar flares thus indicating presence of magnesium, aluminium, silicon and calcium on lunar surface.

7.3. NASA DETECTS UNIVERSE'S FIRST MOLECULE

Why in news?

Scientists have detected **Helium hydride ion (HeH^+)**, the **first molecule** to be formed in our universe, for the first time ever.

More on the news

- Helium hydride, was detected roughly 3,000 light-years from Earth by NASA's **Stratospheric Observatory for Infrared Astronomy (SOFIA)**.
- It was detected in a **planetary nebula, NGC 7027**. **Planetary Nebula** is a **cloud of dust and gas** in outer space formed when a star, at the end of its lifetime, blows off its outer layers as it runs out of fuel to burn.

Stratospheric Observatory for Infrared Astronomy (SOFIA)

- It is a Boeing 747SP aircraft modified to carry a **106-inch diameter telescope**.
- It is a joint project of **NASA and the German Aerospace Centre**.

Details

- Almost **14 billion years ago**, after Big Bang when universe cooled down, **ionised hydrogen and neutral helium atoms** reacted to form HeH^+ .
- As this process progressed, HeH^+ reacted with neutral hydrogen and created molecular hydrogen, marking the **beginning of star formation and modern universe**.
- Scientists held that the **chemistry of the universe began with HeH^+** . However, the lack of definitive evidence of its existence in interstellar space has been a dilemma for astronomy for a long time, which is now resolved.

7.4. MALARIA VACCINE

Why in news?

Government of Malawi recently launched the world's first malaria vaccine in a landmark pilot programme.

More in news

- The country is the first of three in Africa in which the vaccine, known as **RTS,S** (Trade name: **Mosquirix**), will be made available to children up to 2 years of age.
- Ghana and Kenya will introduce the vaccine later.
- Financing for the pilot programme has been mobilized through a collaboration among three key global health funding bodies: GAVI, the Vaccine Alliance; the Global Fund to Fight AIDS, Tuberculosis and Malaria; and Unitaid.

RTS,S

- RTS,S/AS01 (RTS,S) is the **world's first malaria vaccine** shown to provide partial protection against malaria in young children.
- RTS,S aims to trigger the immune system to **defend against the first stages of malaria when the Plasmodium falciparum parasite enters the human host's bloodstream** through a mosquito bite and infects liver cells.
- The vaccine is designed to **prevent the parasite from infecting the liver**, where it can mature, multiply, reenter the bloodstream, and infect red blood cells, which can lead to disease symptoms.
- It has been developed by British pharmaceutical company **GlaxoSmithKline** in **partnership with the PATH Malaria Vaccine Initiative (a non profit organisation)**.

Malaria

- Malaria is a communicable disease caused by **Plasmodium parasites** that are transmitted to people through the bites of infected **female Anopheles mosquitoes**.
- It is preventable and curable.
- In 2017, 5 countries accounted for nearly half of all malaria cases worldwide: Nigeria (25%), the Democratic Republic of the Congo (11%), Mozambique (5%), India (4%) and Uganda (4%).

India and Malaria

- As per the World Malaria Report 2017 of World Health Organization (WHO), the estimated malaria cases from India are 87% in South East Asia region.
- The **National Framework for Malaria Elimination (NFME) 2016-2030** lays out the vision, mission, broad principles and practices to achieve **the target of malaria elimination by 2030** synchronising with the Global Technical Strategy (GTS) for Malaria 2016-2030 of World Health Organisation (WHO).
- The Government has drafted **National Strategic Plan for malaria elimination (2017-2022)** wherein the country has been stratified based on the malaria burden into four categories – category 0 to category 3 and based on this the intervention of malaria control and prevention are being strengthened.

WHO Global Technical Strategy for Malaria 2016-2030

- Adopted by the World Health Assembly in May 2015, it provides a technical framework for all malaria-endemic countries.
- It is intended to guide and support regional and country programmes as they work towards malaria control and elimination.
- The Strategy sets ambitious but achievable global targets, including:
 - Reducing malaria case incidence by at least 90% by 2030.
 - Reducing malaria mortality rates by at least 90% by 2030.
 - Eliminating malaria in at least 35 countries by 2030.
 - Preventing a resurgence of malaria in all countries that are malaria-free.

The Global Malaria Programme (GMP)

- The WHO Global Malaria Programme (GMP) coordinates WHO's global efforts to control and eliminate malaria by:
 - setting, communicating and promoting the adoption of evidence-based norms, standards, policies, technical strategies, and guidelines;
 - keeping independent score of global progress;
 - developing approaches for capacity building, systems strengthening, and surveillance; and
 - identifying threats to malaria control and elimination as well as new areas for action.

"High burden high impact approach"

- A new country-driven response – “High burden to high impact” – was launched in Mozambique in November 2018. It will be supported by WHO.
- The approach will be driven by the 11 countries that carry the highest burden of the disease (Burkina Faso, Cameroon, Democratic Republic of the Congo, Ghana, India, Mali, Mozambique, Niger, Nigeria, Uganda and United Republic of Tanzania).

Related news

- Recently the Indian Council of Medical Research has launched the '**Malaria Elimination Research Alliance (MERA) India**' to prioritise, plan and scale up research to eliminate the disease from India by 2030.
- 'Malaria Elimination Research Alliance-India (MERA-India)' is a **conglomeration of partners** working on malaria control.
- The **principal activity of the alliance** is to prioritise, plan, conduct, scale up and translate relevant research in a **coordinated and combinatorial way** in order to have a tangible impact on the population who are at risk of malaria.
- It intends to complement the efforts on national scale while contributing to the **broader global agenda**.
- It will facilitate **trans-institutional coordination and collaboration** around a shared research agenda which responds not only to programmatic challenges and **addresses gaps in available tools** but also proactively contributes to **targeted research**.

7.5. 3-PARENT BABY

Why in news?

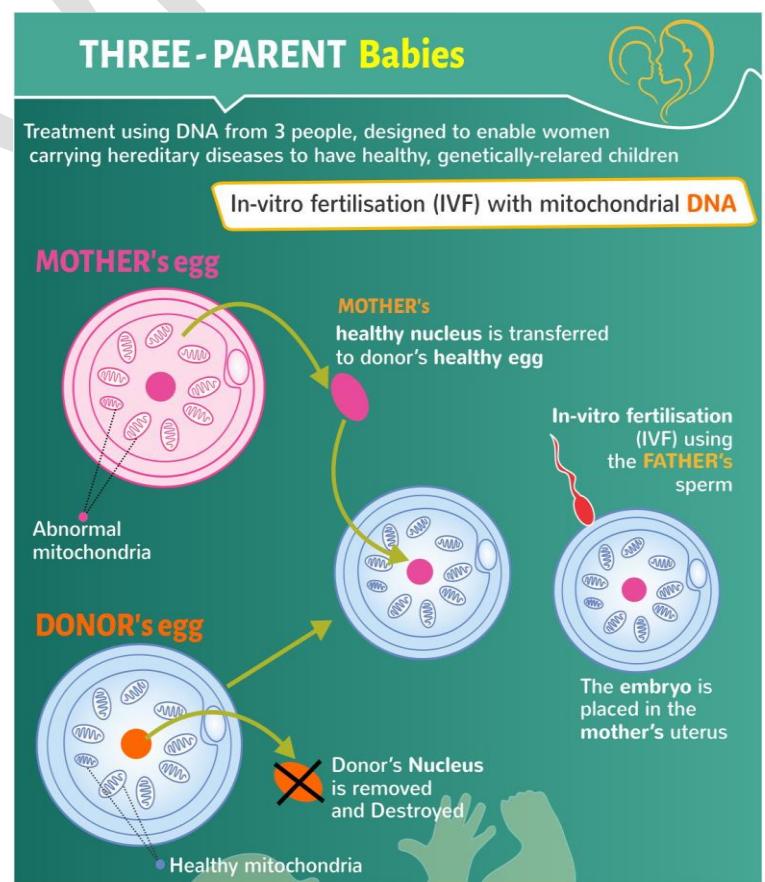
Recently, a team of Greek and Spanish doctors has produced a baby from three people **using maternal spindle transfer technique (a method of Mitochondrial Replacement Therapy)**.

Background

- The mitochondria are organelles inside cells that are involved in releasing energy by **producing adenosine triphosphate (ATP)**, the key energy currency that drives metabolism.
 - Mitochondria are referred to as the **powerhouse of the cell**.
- In addition to energy production mitochondria also **helps to regulate the self-destruction of cells** (apoptosis), necessary for **production of substances such as cholesterol** and heme (a component of haemoglobin).
- While most of DNA is found in cell nucleus, some DNA is also found in the mitochondria, it is called mitochondrial DNA (mtDNA).
- Mitochondria are **inherited solely from the mother** and this results into cases of babies been born with **rare mitochondrial diseases** if mother has the faulty mtDNA.
- Certain disorders caused due to mtDNA dysfunction are diabetes, respiratory disorders, Huntington's disease, Parkinson's disease, Alzheimer's disease etc.
- There is currently **no cure for mitochondrial diseases**.

About “three-parent” babies

- **Mitochondrial Replacement therapy (MRT)** is a form of **In Vitro Fertilization (Assisted Reproductive Technology)**.
- It is used to **replace mother's faulty Mitochondrial DNA with healthy Mitochondria from a donor woman** during IVF process, thus the name- “three-parent” baby.
- The resulting child is still **conceived from two parents** and will have **nuclear DNA from the woman and her partner**, and **mitochondrial DNA from the donor**.



- The donor's mitochondria contribute **just 37 genes to the child**, compared with more than 20,000 from the parents. That is a **negligible amount** and far less than one would gain from a blood transfusion or organ transplant.
- No other characteristics** in terms of intelligence, eye colour, hair colour, height etc. are changed.
- Advantages:** It could **prevent severe genetic diseases** being passed from mother to offspring and can be used to **treat infertility**.
- The United Kingdom became the first country in 2015, to have officially approved procedures to create "**three-parent**" babies.

Issues involved

- Safety Implications:** Long term evolutionary implications and unintended consequences on the heredity and future generations are unknown.
- Religious Grounds:** Some groups believe that technologies which manipulate or interfere with human eggs and embryos should not be used.
- Social Issues:** These techniques **being expensive**, could benefit certain economically forward social groups only. It can also arise due to the **tripaternal aspect**, as children formed from these techniques might be subjected to mental agony due to discrimination or it may cause legal complications.
- Ethical Issues:** Parents may misuse the technique to get "genetically modified" or "designer" babies.
- Future Health Issues:** It could result in children being at higher risk of cancer and pre-matured ageing and would need to be monitored all their lives.

Way Forward

MRT technique should be developed and administered in a regulated environment such that it can be used to prevent fatal diseases while ensuring that it is not misused and only those who need it get access to it.

7.6. PROTECTION OF PLANT VARIETIES AND FARMERS' RIGHTS (PPV&FR)

Why in News?

Recently, PepsiCo has **sued nine farmers in Gujarat** for alleged rights infringement on the grounds that they illegally grew its registered **FC-5 potato variety (or FL-2027)** used to make Lays chips.

More on News

- PepsiCo has invoked **Section 64** of the Protection of Plant Varieties and Farmers' Rights (PPV&FR) Act, 2001 to claim infringement of its rights, as company has patented FC-5 until January 2031 under the Act.
- Farmers groups **cite Section 39** of the **PPV&FR Act**, which specifically says that a farmer is allowed "to save, use, sow, resow, exchange, share or sell his farm produce including seed of a variety protected under this Act" so long as he does not sell "branded seed".

About the Protection of Plant Varieties and Farmers' Rights (PPV&FR) Act, 2001

- India as a signatory to World Trade Organization in 1994, was obliged under Article 27(3) (b) of the Agreement on Trade-Related Aspects of Intellectual Property Rights (TRIPS), either to **adopt a sui generis system for plant variety protection or join the Convention of the International Union for the Protection of New Varieties of Plants (UPOV)**.

Process of MRT

The Process of **Mitochondrial Replacement Therapy** can be done by two methods – Pronuclear transfer and Spindle transfer.

Spindle Transfer

- In this method the spindle and associated chromosomes from the normal mitochondria are removed and destroyed and the spindle and related chromosomes form the mother's eggs/abnormal mitochondria are transferred to the emptied donor egg.
- The reconstituted egg is fertilised with sperm from father and the embryo with normal mitochondria and maternal and paternal genomes is transferred to the uterus.

Pronuclear Transfer

- In this method, first mother's eggs with abnormal mitochondria and the donated egg with normal mitochondria are fertilised with sperm.
- Then the pronuclei from the normal mitochondria are destroyed and the pronucleus from zygote of the abnormal mitochondria is transferred to the emptied zygote.
- After this procedure the embryo with normal mitochondria and maternal and paternal genome is transferred to the uterus.

- The Protection of Plant Varieties and Farmers' Rights (PPV&FR) Act, 2001" was enacted by adopting **sui generis system**.
 - It's the **world's only IPR legislation** which grants intellectual property rights not only to the **plant breeders but also to the farmers** by protecting new, extant and farmers' varieties.
 - Unlike UPOV, the Act facilitates protection of not only new, but even extant (existing) varieties. That includes those notified under the **Seeds Act (1966)**, farmers' varieties and varieties of common knowledge.
 - **Objective**
 - To **recognize and protect the rights of farmers** in respect of their contributions made at any time in conserving, improving and making available plant genetic resources for the development of new plant varieties.
 - To **accelerate agricultural development** in the country, protect plant breeders' rights; stimulate investment for research and development both in public & private sector for the development new of plant varieties.
 - Facilitate the **growth of seed industry** in the country, to ensure the availability of high quality seeds and planting material to the farmers.
 - The protection period is for 15 years, and 18 years in the case of trees and vines.
 - Establishes **Plant Varieties Protection Appellate Tribunal (PVPAT)**: The decisions of the PVPAT can be challenged in High Court. The Tribunal shall dispose of the appeal within one year.
 - **Protection of Plant Varieties and Farmers' Rights Authority (PPV&FR Authority)**: Established to implement the provisions of the Act by Department of Agriculture and Cooperation, Ministry of Agriculture.
- General Functions of the Authority:**

Rights under the Act

- **Breeders' Rights**: Breeders will have exclusive rights to produce, sell, market, distribute, import or export the protected variety. Breeder can appoint agent/ licensee and may exercise for civil remedy in case of infringement of rights.
- **Researchers' Rights**: Researcher can use any of the registered variety under the Act for conducting experiment or research. This includes the use of a variety as an initial source of variety for the purpose of developing another variety but repeated use needs prior permission of the registered breeder.
- **Farmers' Rights**
 - A farmer who has evolved or developed a new variety is **entitled for registration and protection** in like manner as a breeder of a variety.
 - A farmer **can save, use, sow, re-sow, exchange, share or sell his farm produce** including seed of a variety protected under the PPV&FR Act, 2001 in the same manner as he was entitled before the coming into force of this Act provided farmer shall not be entitled to sell branded seed of a variety protected under the PPV&FR Act, 2001.
 - There is also a provision for **compensation to the farmers** for non-performance of variety under Section 39 (2) of the Act, 2001; and
 - Farmer shall **not be liable to pay any fee** in any proceeding before the Authority or Registrar or the Tribunal or the High Court under the Act. It will be paid **through National Gene Fund**.

About UPOV

- **Objective**: It's an intergovernmental organization, to provide and promote an effective system of plant variety protection, with the aim of encouraging the development of new varieties of plants, for the benefit of society.
- **Protection to Farmers**: The UPOV Convention provides the basis for members to encourage plant breeding by granting breeders of new plant varieties an intellectual property right: the breeder's right.

Impact of Plant Variety Protection

- increased breeding activities,
- greater availability of improved varieties,
- diversification of types of breeders (private breeders, researchers),
- increased number of foreign new varieties,
- encouraging the development of a new industry competitiveness on foreign markets, and
- improved access to foreign plant varieties and enhanced domestic breeding programs.

Difference Between Patent And PPV&FR Act

- A patent deals with IPR over devices of Industrial applications whereas PPV & FR Act, 2001 confers IPR to plant breeders who have bred or developed plant varieties.
- A patent is a set of exclusive rights granted by a state (national government) to an inventor or their assignee for a limited period of time in exchange for the public disclosure of an invention. The PPV&FR Act, give rights to farmers, breeders and researches besides giving protection to varieties of all crop species which are notified under the Act.
- There is also provision for benefits sharing, compensation to the farmers, recognition and award to the farmers for supporting conservation and sustainable use of plant genetics resource.

- Registration of new plant varieties and Maintenance of the **National Register of Plant Varieties for registration of new plant varieties**, essentially derived varieties (EDV) and extant varieties.
- **Facilitate development and commercialisation** of new varieties through formal linkages with agricultural universities, research institutions and Krishi Vigyan Kendras
- **Developing DUS (Distinctiveness, Uniformity and Stability) test guidelines for new plant species:** DUS testing is a way of determining whether a newly bred variety differs from existing varieties within the same species (the Distinctness part), whether the characteristics used to establish Distinctness are expressed uniformly (the Uniformity part) and that these characteristics do not change over subsequent generations (the Stability part).
- **Maintenance of National Gene Bank** to store the seed material including parental lines submitted by the breeders of the registered varieties
- **Establish National Gene Fund (2007):** It supports and reward farming /tribal/rural communities who are engaged in conservation, improvement and preservation of genetic resources of economic plants and their wild relatives.
- **Institute Plant Genome Saviour Community Award**, to community of farmers which is engaged in conservation, improvement and preservation of genetic resources of economic plants and their wild relatives, particularly in areas identified as agro-biodiversity hotspots.

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8. CULTURE

8.1. 100 YEARS OF JALLIANWALA BAGH MASSACRE

Why in news?

13th April, 2019 marked the 100 years of the historical Jallianwala Bagh Massacre.

Details

- The Anarchical and Revolutionary Crimes Act of 1919, better known as the **Rowlatt Act**, came into force in March 1919, even though every single Indian member of the Central Legislative Council opposed it.
- The Rowlatt Act bestowed on the Government the power :
 - **to set up special courts** consisting of three High Court Judges for specified offences;
 - **to direct execution of bond for good behaviour**; internment within city reporting at police station; and abstention from specific acts; and
 - **to arrest anybody suspected of terrorist activities**, detain them for up to 2 years without trial, search a place without a warrant, and impose severe restrictions on the freedom of the press.
- It shocked most Indians who had expected to be rewarded, not punished, for willingly fighting alongside the British in the First World War.
- Immediately after the passage of the Rowlatt Act, **B.N.Sarma** resigned his office as member of the Imperial Legislative Council.
- **The Madras Satyagraha Sabha** under the leadership of C. Rajagopalachari, A. Rangaswamy Iyengar, G. Harisarvottama Rao and T. Andhinarayana Chetty opposed the Rowlatt Act.
- **Mahatma Gandhi** called for a satyagraha against the act (Rowlatt Satyagraha). The hartal was observed on 6 April 1919 after the Viceroy gave his assent to the Rowlatt Bill.
- But even before the satyagraha there were large-scale violent, anti-British demonstrations in Calcutta, Bombay, Delhi, Ahmedabad, etc.
- In Punjab, the situation was tense under the oppressive regime of lieutenant governor Sir Michael O' Dwyer who had imposed martial law.
 - It was under his orders that Gandhi was arrested at Palwal near Delhi and prevented from entering Punjab.
 - He also directed that Amritsar's popular leaders **Satyapal** and **Saifuddin Kitchlew** be deported to some "unknown place". They had been agitating against the implementation of Rowlatt Act,
 - **On Baisakhi day**, people gathered in the small park for peaceful protest against arrest of their leaders.
 - The army surrounded the gathering under orders from **General Reginald Dyer**, who was given a free hand by **Governor Michael O' Dwyer**. The only exit point was blocked, and army opened fire on the unarmed crowd, killing more than 1000.

Aftermath

- **Mahatma Gandhi** was overwhelmed by the atmosphere of violence and **withdrew the Rowlatt satyagraha on 18th April, 1919**.
- **Rabindranath Tagore** renounced his knighthood in protest.
- On 14 October 1919, after orders issued by the Secretary of State for India, Edwin Montagu, the Government of India announced the formation of a committee of inquiry into the events in Punjab.
 - Referred to as the Disorders Inquiry Committee, it was later more widely known as the **Hunter Commission**.
 - Congress boycotted this committee.
 - The Hunter Committee did not impose any penal or disciplinary action because Dyer's actions were condoned by various superiors (later upheld by the Army Council).
 - Dyer was initially lauded by conservatives in the empire, but in July 1920 he was censured and forced to retire by the House of Commons. He was disciplined by being removed from his appointment, was passed over for promotion and was prohibited from further employment in India.
- **Mahatma Gandhi**, in 1920, returned the Kaiser-i-Hind medal awarded to him after the Boer War by the British Government as a part of his movement against Punjab and khilafat injustice.

- The corrupt mahants of the Golden temple honoured General Dyer with a saropa (robe of honour), which led to the agitation that resulted in the formation of a committee known as Shiromani Gurudwara Prabandhak Committee (SGPC), which was given the control and management of the Golden Temple, the Akal Takht, and other Gurudwaras.
- Accepting the report of the Repressive Laws Committee, the Government of India repealed the Rowlatt Act, the Press Act, and twenty-two other laws in March 1922.
- **Udham Singh**, a revolutionary belonging to the Ghadar Party assassinated **Michael O' Dwyer** in London, on 13 March 1940.

8.2. 75TH ANNIVERSARY OF BATTLE OF KOHIMA

Why in News?

Recently **75th anniversary of the Battle of Kohima** was observed by the Nagaland government.

About Battle of Kohima

- **Context:**
 - The British and Indian Fourteenth Army, was building up logistical bases at **Dimapur and Imphal** for an eventual offensive into Burma in the course of Second World War.
 - In March 1944, the **Japanese 15th Army began** an advance against India's north-east frontier to forestall a planned British invasion of Burma.
 - The fighting in and around Kohima in the spring of 1944 was part of a larger Japanese offensive, known as "**Operation U-Go**".
- **Strategic location of Kohima** - This was the **route the Japanese intended to take to invade India from Burma, by capturing the British supply bases on the Imphal Plain** and cut the road linking Dimapur and Imphal at Kohima. With Imphal in their hands, the Japanese would be able to **interrupt air supplies to China and to conduct air attacks against India**.
- **Battle of Kohima:**
 - It was fought between the **Allied Forces** and the **Japanese Army** on the **Naga Hills** in three stages from April to June 1944.
 - The **Nagas** were drawn into it **on both sides** some with the British and some with the Japanese.
- **Consequences of the Battle:**
 - The defeat sealed the fate of **Tokyo's imperial ambitions** in South Asia.
 - The huge losses the Japanese suffered in the Battle of Kohima weighed heavily on them during the next phase of the war, allowing the Allied to take control of Burma in 1945.
 - In 2013, the National Army Museum of London, **voted the Battle of Kohima and Imphal as "Britain's Greatest Battle"** beating out Battle of D-Day and Battle of Waterloo.
 - The Battle is often referred to as the "**Stalingrad of the East**".

Related News

Platinum Jubilee Commemoration of Battle of Kangla Tongbi – It was fought in 1944 and is considered one of the fiercest battles of World War II. Japanese forces had planned a three-pronged offensive to capture **Imphal** and the surrounding areas.

8.3. CHARMINAR

Why in news?

Recently, the south-west minaret of the Charminar suffered major damage.

Details

- Charminar (also referred as Arc de Triomphe of the East) is a monument and a mosque, which was completed in **1591 CE**.
- It is believed that **Mohammed Quli Qutb Shahi**, the fifth sultan of the Qutub Shahi dynasty had built the monument to commemorate the end of a deadly plague menace that had gripped the city then.
- It is located near the bank of the **river Musi**.
- It is an example for Indo-Islamic architecture combined with few Persian elements.

Qutb Sahi Dynasty (1518–1687),

- It was one of the five successor states of the Bahmani kingdom.
- The founder was Quli Quṭb Shah. Quṭb Shah declared his independence in 1518 and moved his capital to Golconda (later in 1591 capital was shifted to newly formed Hyderabad).
- Though they started off by introducing Persian as the official language; they later started using Telugu as the primary language of administration in the kingdom; earning them the title of 'Telugu Sultans'.
- The dynasty ruled Golconda for 171 years, until the Mughal emperor Aurangzeb conquered the Deccan in 1687.
- Some examples of Golcondan Indo-Persian architecture are the Golconda Fort, tombs of the Qutb Shahis, Char Minar and the Char Kaman, Mecca Masjid and the Toli mosque.

8.4. KONYAK DANCE

Why in News?

- The Guinness World Records has acknowledged **Konyak Dance** as the "largest traditional dance", in which around 4,700 Konyak Naga women in their colourful traditional attire came together to perform **largest "Traditional Konyak Dance"**.
- It was organised during the "**Aoleang Monyu**" festival of the **Konyak tribe**, which is **celebrated in the first week of April** every year **to welcome the spring**

About Konyak Tribe

- **Konyak is one of the 16 Naga tribes**, known for its fierce **head-hunting** history.
- They mainly live in the Mon district of Nagaland however they are also found in **Arunachal Pradesh, Assam and Myanmar**.
- They are easily distinguishable from other Naga tribes by their **pierced ears; and tattoos** which they have all over their faces, hands, chests, arms, and calves.
- Other **unique traditional practices** of Konyaks are: Gunsmithing, iron-smelting, brass-works, and gunpowder-making.
- **Konyak Dance:** Dancers dance to the beats of traditional instruments and sing a ceremonial song along the dance.

Spring Festivals of India

Festival	Region
Chapchar kut	Mizoram
Garia puja	Tripura
Myoko Festival	Apatanis of Arunachal Pradesh
Moaste and Tsichye	Aos and the Rengma Tribe of Nagaland
Lai Haroba	Manipur
Mopin	Galo tribe in Arunachal Pradesh
Aoleang	Konyak tribe of Nagaland's
Gangaur	Rajasthan
Holi	North India
Vasant Panchami	North India
Tulip Festival	Kashmir
Bohag Bihu	Assam
Baisakhi	Punjab
Thrissur Pooram	Kerala
Gudi Padwa	Maharashtrian
Ugadi	Andhra Pradesh and Karnataka

8.5. BHARATI SCRIPT

Why in news?

An IIT Madras team of researchers has developed a **unified script for nine Indian languages**, named **Bharati script**.

About Bharati Script

- **The Roman script** is used as a common script for many European languages (English, French, German, Italian etc.), which facilitates **communication across nations** that speak and write those languages. Likewise, if a common script is adopted across India, it can greatly facilitate communication across the country.
- Taking a cue from European languages, an IIT Madras team have been working since the last decade over developing such a script.
- The scripts that have been integrated include **Devnagari, Bengali, Gurmukhi, Gujarati, Oriya, Telugu, Kannada, Malayalam and Tamil**.
- The team has now gone a step ahead-
 - It has developed a method for reading documents in Bharati script using a **multi-lingual optical character recognition (OCR) scheme**. It involves first separating (or segmenting) the document into **text** and **non-text**. The text is then segmented into paragraphs, sentences words and letters. Each letter has to be recognised as a character in some recognisable format such as ASCII or Unicode.
 - It has also created a **finger-spelling method** that can be used to generate a sign language for hearing-impaired persons. In collaboration with TCS Mumbai, the researchers have found a way for persons with hearing disability to generate signatures using this finger-spelling technique.
- The **objective of the project** is
 - to facilitate the spread of Bharati by creating awareness of it among the public, particularly the next generation
 - to facilitate ease of use of Bharati by developing software tools and applications.

The advertisement features a central illustration of two figures, one red and one blue, standing on a scale, symbolizing justice. The red figure has horns and a tail, while the blue figure has wings and a halo. The background is white with faint icons related to law and ethics.

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9. ETHICS

9.1. THE ETHICS OF VOTING

Why in news?

With the General Elections going on to elect the 17th Lok Sabha, the act of voting is being debated as an ethical issue.

Why voting is an ethical issue?

- **Beneficence:** Voting the right way is important as it is expected to largely benefit the public good.
- **Prudence:** An individual's vote, when cast correctly, significantly promotes their own interests. Moreover, it is prudent to vote from considerations of civic virtue and public-spiritedness.
- **Debt to society:** Citizens, who abstain from voting get a free ride on the provision of good government or fail to pay their "debts to society".
- **Saving democracy:** Voting tends to preserve stable democracy, but failing to vote threatens to undermine the confidence of the collective in the government (as people don't consider it representative enough).
- **Participation in furthering justice & rule of law:** Representatives act in the name of the citizens. Citizens count as partial authors of the law. Citizens, who refuse to vote, don't partake in the law making process and don't spread the cause of justice.

Challenges to ethical voting

- **Voting in exchange of cash or goods** goes against the grain of democratic election. It makes the process of voting a transaction for the personal good, rather than larger good of the society. A politician doling out money/freebies to buy electorate's votes sees it as an investment & it is almost certain that he would recover more by indulging in corrupt activities.
- The **act of buying/selling votes** goes against the tenet '**one person, one vote**' or **Right to Equality** (constitutionally guaranteed right under Article 14) as poor are more likely to sell their votes than are the wealthy, leading to political outcomes favoring the wealthy.
- Similarly, **voting on basis of caste or community identity** without making an informed decision, on whether it will enhance the larger community good, is not morally sound. In such a scenario, the Government would be more interested to **push sectarian agenda** (e.g. favors for a particular religious group, caste based reservations etc.) that appeases one particular group **rather than public good** which is to be beneficial for every social group (e.g. investing in primary education, rural infrastructure, environment etc).
- **Voting in favour of short-term populism**, which only intends to serve a particular group or section of the society, might not be good for the society on the whole. Similarly, common public voting for the lure of free user services (e.g. water, electricity etc) might end up compromising on the service quality.
- Majority voters **do not just choose for themselves, but for everyone**, including dissenting minorities, children, non-voters etc. To vote for self-interest at the expense of the common good is to vote in favor of subjugating others' interests. Voting for common good is essential to give everyone in society an equal stake.

Promoting Ethical Voting

- Educate the target population about voter registration, entire electoral process and related matters through hands-on experience. The motive must be to change the common perception that an individual vote has small 'expected utility'.
- EVM & VVPAT familiarization and education about robustness and non-tamperability of the same. Ensuring integrity of the electoral processes is key to nudge citizens to invest time and effort into acquiring political knowledge that translates into informed voting.
- Facilitate the target audience to understand constitutional, legislative and legal provisions and roles of Election Commission, media and other stakeholders.

SVEEP (Systematic Voters' Education & Electoral Participation) is a multi intervention programme started by Election Commission of India in 2009. It intends to educate citizen electors and voters about the electoral process in order to increase their awareness and participation

- Election Commission should form Electoral Literacy Clubs for future voters (e.g. children at secondary & senior secondary level) and new voters (e.g. in voters in colleges). ‘Chunav Pathshalas’ must be organized for youth and adults who have been outside the formal education system.
- Create voter campaigns to educate them to cast their votes without any inducement E.g. “Vote without Note”, “No Vote for Note” etc. SVEEP Program of Election Commission is working effectively in this regard, with “Promoting Ethical and Informed Voting” one of its major objectives.
- Election Commission should identify expenditure sensitive constituencies and polling stations where focused campaign needs to be taken out on ethical voting. In such areas, Booth Awareness Groups (BAGs) can be formed for dissemination of information on ethical voting

Conclusion

The fundamental problem lies in viewing voting as a transaction, the aim of which is to get some benefit for an individual or a group. The act of voting is an ethical duty, of having to act not for individual benefit, such as money or ideology, but for the benefit of the larger society.

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10. NEWS IN SHORT

10.1. INTERNATIONAL DAY OF MULTILATERALISM AND DIPLOMACY FOR PEACE

- On April 24 2019, the first official **International Day of Multilateralism and Diplomacy for Peace** was celebrated.
- The International Day was officially approved on 12 December, 2018 by **United Nations General Assembly** through a resolution. The day **underscores the value of international cooperation for the common good**.
- The International Day is a reaffirmation of the UN Charter and its principles of resolving disputes among countries through peaceful means. It acknowledges the **use of multilateral decision-making and diplomacy in achieving peaceful resolutions to conflicts among nations**.

10.2. WORLD PRESS FREEDOM INDEX

- The **Reporters Without Borders (RSF)** has released the **World Press Freedom Index 2019** in which India has dropped two places ranking 140th out of 180 countries.
- List is topped by **Norway**, and the report highlights **increased sense of hostility** towards journalists across the world.
- It notes **death of at least six journalists** in 2018 and highlights the violence against journalists including police violence, attacks by Maoist fighters and reprisals by criminal groups or corrupt politicians.
- Reporters Without Borders (Reporters Sans Frontieres- RSF)**
- It is an international non-profit organization, based in **Paris** that conducts political advocacy on issues relating to freedom of information and freedom of the press.

10.3. SOVEREIGN INTERNET LAW

- Recently Russian President signed into law a "**Sovereign Internet**" Bill which will allow Russia to isolate the country's internet.
- The law requires all internet service providers to filter all their traffic through special nodes which are under the control of **Kremlin's internet censor, Roscomnadzor**.
- This will **enable Roscomnadzor to enforce blocks on websites**. (In the past, Telegram was blocked after it refused from giving Kremlin backdoor access to its app.)
- It includes measures like **creating technology to monitor internet routing** and to steer Russian internet traffic away from foreign servers to prevent a foreign country from shutting it down.

10.4. PM AWARDED RUSSIA'S HIGHEST CIVILIAN AWARD

- Prime Minister Narendra Modi has been awarded the **Order of St. Andrew the Apostle**, the **highest civilian award** of the Russia.
- The award was given for achievement in developing the **Special and Privileged Strategic Partnership** between Russia and India and **deepening the friendly relations** between the peoples of the two countries.
- The Order is awarded to **prominent government and public figures**, representatives of science, culture, art and various sectors of the economy for "exceptional services that contribute to the **prosperity, greatness and glory of Russia**."

Global awards conferred on PM Modi since 2014

- Amir Amanullah Khan Award**- Afghanistan's highest civilian award
- Order of King Abdulaziz Sash**- Saudi Arabia's highest civilian honour
- Grand Collar of the State of Palestine**- Palestine's highest honour given to foreign dignitaries
- Seoul Peace Prize**- by Seoul Peace Prize Foundation.
- Order of Zayed**- UAE's highest civil honour.
- Champions of the Earth award** – UN's highest environmental honour, awarded by **UNEP**.

10.5. KAFALA (SPONSORSHIP) SYSTEM

- Recently UN's **International Labour Organization** announced that Qatar is all set to abolish its **controversial Exit visa system for all foreign workers** by the end of 2019.
- About 1.2 million foreign workers in Qatar, mostly from **India, Pakistan, Bangladesh, Nepal, and the Philippines**, make up 94 percent of the total labor force.
- The Kafala system emerged in the 1950's to **regulate the relationship between employers and migrant workers** in many countries in West Asia.
- Under this system a migrant worker's immigration status is **legally bound to an individual employer or sponsor (kafeel)** for their contract period.
 - The migrant worker **cannot** enter the country, transfer employment nor leave the country for any reason without first **obtaining explicit written permission** from the kafeel.
 - The worker must be **sponsored by a kafeel** in order to enter the destination country and remains tied to this kafeel throughout their stay.

10.6. TRIANGULAR DEVELOPMENT COOPERATION IN ASIA AND AFRICA

- India and the United States recently signed the First Amendment to the **Statement of Guiding Principles (SGP) on Triangular Cooperation for Global Development**.
- The SGP Agreement, signed in November 2014, provides a framework for promoting cooperation between the two countries to meet the developmental aspirations of partner countries, particularly in Asia and Africa.
- Under the Agreement, India and U.S. will continue to offer capacity building assistance to partner countries in **multiple sectors**, focusing primarily on agriculture, regional connectivity, trade and investments, health etc.
- This amendment **extends the validity** of the SGP Agreement up-to 2021.
- It also expands the scope of **capacity building activities** undertaken jointly by India and the United States under this framework and provides a **consultative mechanism** for joint biannual monitoring and review of activities undertaken under the SGP.

10.7. NUGEN MOBILITY SUMMIT

- The International Centre for Automotive Technology (ICAT) is going to organize **NuGen Mobility Summit, 2019**, at Manesar, **Haryana** in November 2019.
- Objectives**
 - To share new ideas, learnings, global experiences, innovations and future technology trends for faster adoption, assimilation and development of advanced automotive technologies for a smarter and greener future.
 - Building a platform for bringing together all stakeholders in the automotive industry to understand global advancements in technologies.
- The summit will host conferences, track events and an exhibition in which manufacturers, suppliers and service providers will showcase their products and services, with a special focus on **touch and feel of the concurrent and futuristic technologies**.

About ICAT

- It is a division of **NATRIP Implementation Society (NATIS)** under the Department of Heavy Industries, Government of India.
- It provides services for testing, validation, design and homologation of vehicles.
- Its mission is to assist the automotive industry in **adopting cutting edge technologies** in vehicle evaluation and component development for new generation mobility solutions.

10.8. GLOBAL COALITION ON CLEAN COOLING

- The first-ever global coalition on clean and efficient cooling (the Cool Coalition) was launched at the First Global Conference on Synergies between the 2030 Agenda and Paris Agreement in Copenhagen, Denmark.
- The Cool Coalition aims to inspire ambition and accelerate action on the transition to clean and efficient cooling.
- It is a global effort led by **UN Environment**, the Climate and Clean Air Coalition, the Kigali Cooling Efficiency Program, and Sustainable Energy for All (SEforALL).
- It includes **ministers of environment** from Chile and Rwanda and Foreign Affairs from Denmark as well as the heads of Danish engineering firm Danfoss and ENGIE, and the leaders of civil society, research, academia and intergovernmental institutions.
- It is a unified front that links action across the Kigali Amendment, Paris Agreement and Sustainable Development Goals.
- The Cool Coalition offers a three-in-one opportunity to cut global warming, improve lives of hundreds of millions of people and make huge financial savings.
- It will complement and build upon ongoing successful programmes to advance clean and efficient cooling, including the Cooling for All Secretariat, the Climate and Clean Air Coalition, the Kigali Cooling Efficiency Programme, private sector action like the Global Cooling Prize, and other initiatives.

10.9. KAZIRANGA NATIONAL PARK

- The Supreme Court has banned all mining activities along the Kaziranga National Park and catchment area of rivers originating in Karbi Anglong Hills in Assam
- Kaziranga National Park**
 - Formed in 1908 the park is located on the edge of the **Eastern Himalayan biodiversity hotspots** - in the Golaghat and Nagaon districts of Assam.
 - The southern border of the park is roughly defined by the **Mora Diphlu River**. Further south are the hills of Barail and the Mikir.
 - The Brahmaputra River** constitutes the dynamically changing Northern boundary of the park.
 - The other rivers in Kaziranga are **Diphlu and Mora Dhansiri**.
 - It is world's major stronghold of the **Indian one-horned rhino**, having the single largest population of this species, currently estimated at over 2,000 animals (approximately 2/3rd of their total world population).
 - Other animals that can be seen in Kaziranga are **Hoolock Gibbon, Tiger, Leopard, Indian**

- Elephant, Sloth Bear, Wild water buffalo, swamp deer, etc.
- With increase in tiger population every year, the government authorities declared Kaziranga as a **Tiger Reserve** in the year 2006.
- In the year 1985, the park was declared as a **World Heritage Site** by UNESCO.
- Also, the park is recognized as an **Important Bird Area** by **BirdLife International** for the conservation of avifaunal species.

10.10. NATIONAL MISSION FOR CLEAN GANGA

- The National Mission for Clean Ganga (NMCG) was awarded the distinction of "Public Water Agency of the Year" by Global Water Intelligence at the Global Water Summit in London.
- The **Global Water Awards** are presented at the Global Water Summit, the major business conference for the water industry worldwide.
- The awards recognize excellence across the international water industry and reward those initiatives in the water, waste water, and desalination sectors, which bring remarkable improvements in the lives of people
- National Mission for Clean Ganga (NMCG)**
 - It is the implementing wing of National Council for Rejuvenation, Protection and Management of River Ganga.
 - It is registered as a society under the Societies Registration Act 1860.
 - Aims of NMCG
 - To ensure effective abatement of pollution and rejuvenation of Ganga basin approach to promote inter-sectoral co-ordination for comprehensive planning and management
 - To maintain minimum ecological flows in the river Ganga with the aim of ensuring water quality and environmentally sustainable development.
 - It implements
 - the work programme of National Ganga River Basin Authority (NGRBA).
 - Implement the World Bank supported National Ganga River Basin Project.

10.11. FACE OF DISASTER REPORT

- SEEDS** (Sustainable Environment and Ecological Development Society), a non-profit voluntary organization, released their comprehensive '**Face of Disasters' report**', which looks at the changing nature of disasters and the complexity of their impact on everyday life.
- According to it, India is staring at extremes of too little and too much rainfall in 2019. There is a **significant drought condition even before the onset of summers**. Extreme floods in unexpected locations

during the Monsoons are fast becoming a new normal.

10.12. RICE KNOWLEDGE BANK

- Recently **Rice Knowledge Bank-Assam**, was launched as part of the world Bank Funded project named **Assam Agri-business and Rural Transformation (APART)**.
- Rice Knowledge Bank is an **agriculture web portal** dedicated to enhancing knowledge on rice production techniques, agricultural technologies, best farming practices and state agriculture facts.
- The portal is the result of efforts of **Assam Rural Infrastructure and Agricultural Services Society (ARIASS); Assam Agricultural University (AAU);** with technical assistance from **International Rice Research Institute (IRRI)**.

International Rice Research Institute (IRRI)

- It is an **international agricultural research and training organization** with headquarters in **Philippines**.
- It is known for its work in developing rice varieties that **contributed to the Green Revolution in the 1960s** which pre-empted the famine in Asia.
- It is one of 15 agricultural research centers in the world that form the **CGIAR (Consortium of International Agricultural Research Centers)**, a global partnership of organizations engaged in research on food security.
- IRRI provides **technical guidance** on improving rice production systems and management practices by promoting climate resilient technologies, encouraging their adoption on-field, and facilitating market linkages.

10.13. 20TH LIVESTOCK CENSUS

- Livestock Census has been conducted **every 5 year** in the country since 1919-20, under the aegis of **Department of Animal Husbandry, Dairying and Fisheries** (Ministry of Agriculture & Farmers Welfare).
- The 20th Livestock Census will be conducted in **all the districts of the India** in participation with all States and Union Territories.
- Various species of animals** (Cattle, Buffalo, Mithun, Yak, Sheep, Goat, Pig, Horse, Donkey, Camel, Dog, Rabbit and Elephant)/poultry birds (Fowl, Duck, Emu, Turkeys, Quail and other poultry birds) possessed by the households, household enterprises/non-household enterprises and institutions will be counted at their site.
- This census would be a **breed-wise Livestock Census**, which will be helpful for framing policies or programmes for breed improvement.
- Currently, India has **highest livestock population** in world at 125.5 crore.

10.14. MIGRATION AND DEVELOPMENT BRIEF 2018

- The World Bank recently released its Migration and Development Brief 2018.
- India has retained its spot** as the world's top remittance recipient.
- India was followed by **China** (\$67 billion), **Mexico** (\$36 billion), the **Philippines** (\$34 billion) and **Egypt** (\$29 billion)

10.15. GLOBAL REPORT ON FOOD CRISES 2019

- Global Report on Food Crises 2019 was jointly presented by the **European Union, the Food and Agriculture Organization (FAO)**, and the **UN World Food Programme (WFP)**.
- The report is prepared annually by **Food Security Information Network (FSIN)**.
- FSIN is an initiative by **FAO, WFP and IFPRI** to strengthen food and nutrition security information systems for producing reliable, accurate data to guide analysis and decision-making.
- It serves as a **neutral technical platform** for exchanging expertise, knowledge and best practices, developing harmonized methods and tools, and facilitating capacity development on food and nutrition security measurement and analysis.

10.16. GLOBAL FOOD POLICY REPORT

- International Food Policy Research Institute (IFPRI)** has recently released **Global Food Policy Report-2019**.
- The 2019 Global Food Policy Report reviews the major policy developments of 2018 and **focuses on rural revitalization** as a promising way to achieve the 2030 development agenda and improve rural lives.
- Report recommends **rurbanomics** as approach for strengthening rural–urban linkages. Rurbanomics is an approach that frames rural economies as equal partners with urban economies, emphasizing the vitality of rural economies as drivers of food security and rural well-being; as springboards for value chains; and as providers of quality environmental services.

The **International Food Policy Research Institute (IFPRI)** is an international research centre founded in 1975 providing policy solutions to **sustainably reduce poverty and end hunger and malnutrition** in developing countries.

10.17. WORLD SUMMIT ON THE INFORMATION SOCIETY (WSIS) AWARDS

- Two schemes of the West Bengal government **Utkarsh Bangla**” and “**Sabooj Sathi** have won the prestigious World Summit on the Information Society (WSIS) awards of the United Nations.

- Utkarsh Bangla** aims to provide **vocational training to school dropouts** by providing training ranging from 400 to 1200 hours free of charge.
- Sabooj Sathi** aims to **empower the students, especially the girls and reduce drop outs** in higher education by distributing bi-cycles to students of class IX to XII studying in Govt. run and Govt. aided Schools and Madrashas.
- The **World Summit on the Information Society (WSIS) Forum** is a global United Nations (UN) multistakeholder platform
- It is co-organized by ITU, UNESCO, UNDP and UNCTAD, in close collaboration with other UN organizations.
- It represents the world's largest annual gathering of the 'ICT for development' community.

10.18. USTR PLACES INDIA ON PRIORITY WATCH LIST

- India has been retained on the "priority watch list" in the latest Special 301 report released by the United States Trade Representative (USTR).
- The Special 301 Report (Report) is the result of an annual review of the state of IP protection and enforcement in U.S. trading partners around the world.
- Each year the USTR identifies countries which do not provide "adequate and effective" protection of intellectual property rights or "fair and equitable market access to United States persons that rely upon intellectual property rights
- The report ranks countries mainly into two categories - priority foreign country (PFC) and priority watch list (PWL).
- While a PFC grading obligates the US Trade Representative (USTR) to initiate unilateral measures like suspension of trade concessions in case of failure of negotiation, the PWL increases "bilateral attention concerning the problem areas."

10.19. MILITARY EXERCISES

- Bold Kurukshetra 2019:** It is a joint **military exercise** between India and Singapore.
- Indian Navy-Vietnam Peoples' Navy Bilateral Exercise (IN – VPN BILAT EX):** It is 2nd edition of the bilateral maritime exercise between **Indian Navy and Vietnam Peoples' Navy**.
- Exercise Varuna:** It is the naval exercise between **India and France**.

10.20. INS IMPHAL

- The Indian Navy recently launched its third guided missile destroyer (INS Imphal) as part of its Project 15B.
- Project 15B**
 - Mazagaon Dock Shipbuilders Limited**, Mumbai has been entrusted to build **four guided missile destroyers** under Project 15B (P 15B).
 - The design of P15B ships has been developed in house by the **Directorate of Naval Design**.
 - These ships are amongst the most technologically advanced Guided Missile Destroyers of the world, with state-of-the-art weapon/sensor package, advanced stealth features and a high degree of automation.
 - The Navy had earlier launched **INS Vishakhapatnam** and **INS Mormugao** under Project 15B.

10.21. NIRBHAY MISSILE

- Defence Research and Development Organisation (DRDO) successfully test-fired its first **indigenously designed and developed long-range sub-sonic cruise missile** 'Nirbhay' from a test range in Odisha.
- The missile can be **launched from multiple platforms** and is capable of **carrying conventional and nuclear warheads**.
- The missile is capable of loitering and cruising at **0.7 Mach at altitude as low as 100 metre** with a **range of 700 km to 1,000 km**. After its launch in typical missile style, it can be controlled in aircraft mode.
- The guidance, control and navigation systems of the missile are configured around the **indigenously designed Ring Laser Gyroscope and MEMS based, inertial Navigation System**.

10.22. WORLD'S LARGEST PLANE

- Recently, world's largest aircraft (by wingspan) completed its first flight test.
- It has been developed by aerospace venture Stratolaunch and is designed to act as a **flying launch pad for satellites and put payloads in orbit**.

10.23. HOPE PROBE PROJECT

- The UAE Space Agency and Mohammed bin Rashid Space Centre recently announced that 85% of the Hope Probe project has been completed.
- Hope Probe is an ambitious project of UAE to send a mission to Mars. It is the first Arab probe to be launched to explore an exoplanet.

10.24. ROYAL SOCIETY OF LONDON

- Recently, Gagandeep Kang became **the first Indian woman scientist** getting selected as a **fellow of the Royal Society (FRS)** London.

- Other prominent past fellows include: Srinivasa Ramanujan, Jagdish Chandra Bose, C.V. Raman etc.
- Royal society is a **self-governing fellowship** made up of the most eminent scientists, engineers and technologists from the **UK and the Commonwealth**. Fellows and Foreign Members are elected for life through a peer review process on the basis of excellence in science.

10.25. HONEYPOT

- Cybercriminals attempted attacks on a Mumbai Cloud server honeypot more than 678,000 times in a month.
- A **honeypot** is a system intended to mimic likely targets of cyber attackers for security researchers to monitor cybercriminal behaviour.
- Recently, honeypots were set-up in **10 of the most popular Amazon Web Services (AWS) data centres** in the world.

10.26. AJIT

- Recently, a team from IIT Bombay unveiled a chip designed, AJIT.
- It's country's first **indigenously-produced microprocessor** for SPARC ISA architecture.
- India recently also had its first indigenously-developed open-source processor **in the form of Shakti (developed by IIT Madras)**. That was instead based on RISC-V architecture.
- The other main difference between the two is that Shakti is smaller and geared towards smartphones and IoT devices. Ajit instead is aimed at larger systems like robots, automation systems, appliances, and in the future perhaps even servers and workstations.

10.27. SARASWATI SAMMAN

- Telugu poet K Siva Reddy** was conferred with the prestigious Saraswati Samman for 2018, for his collection of poems titled Pakkaki Ottigilite (Turning Aside While Lying Down).
- This prestigious award instituted by **K.K.Birla foundation** is given every year to an outstanding work of an Indian citizen published during the last 10 years in any of the languages mentioned in **Schedule 8 of the constitution**.
- The award comprises of a citation and a plaque apart from award money of 15 lakh rupees.
- Besides the Saraswati Samman, the K.K.Birla foundation also gives away two other literary awards Vyas Samman and Bihari Puraskar.

10.28. RECENT GI TAGS

14 products from different States accorded GI tags so far this year.

State	Product
Odisha	<ul style="list-style-type: none"> Kandhamal Turmeric: Grown organically by tribals in Kandhamal district and has high antimicrobial, anti-inflammatory property and anti-carcinogenic quality.
Tamil Nadu	<ul style="list-style-type: none"> Erode Turmeric: It has distinctive golden yellow colour and also characteristic sweet taste and aroma. Thirubuvanam Silk Sarees
Karnataka	<ul style="list-style-type: none"> Sirsi Supari: It is the first in the arecanut sector to get a GI Tag. It has a unique taste due to differences in chemical composition and the total average flavonoids content in it is around 90 whereas in others it is around 80. Coorg Arabica Coffee Chikmagalur Arabica Coffee Bababudangiris Arabica Coffee
Kerala	<ul style="list-style-type: none"> Marayoor jaggery: High sweetness with less saltiness, high iron content, less sodium, less insoluble impurities, organic method of production are its special features. Wayanad Robusta Coffee
Andhra Pradesh	<ul style="list-style-type: none"> Araku Valley Arabica Coffee: It is grown around Visakhapatnam district in Andhra Pradesh and Koraput district in Odisha.
Chattisgarh	<ul style="list-style-type: none"> Jeeraphool: It is a superfine variety of rice.
Uttar Pradesh	<ul style="list-style-type: none"> Chunar Balua Patthar (sandstone): It is the second GI tag under natural goods after Makrana Marble of Rajasthan.
Himachal Pradesh	<ul style="list-style-type: none"> Himachali Chulli (Apricot) oil Himachali Kala Zeera (Black cumin)



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11. GOVERNMENT SCHEMES IN NEWS

11.1. NEW UREA POLICY 2015

Cabinet Committee Economic Affairs has approved the extension of New Urea Policy 2015 for existing gas-based units.

Objective	Salient features
<ul style="list-style-type: none">maximizing indigenous urea production,promoting energy efficiency in urea production andrationalizing subsidy burden on the government.	<ul style="list-style-type: none">Department of Fertilizers had notified this policy to make the domestic urea sector would globally competitive in terms of energy efficiency.It is applicable to the existing 25 gas based units.Under the Policy, subsidy on production costs is provided to 25 urea units when their production is beyond a certain production capacity as notified.25 gas based urea plants are classified into three categories based on certain energy norms. These units are eligible for concession based on energy norms fixed for each group.It will drive urea units to select better technology and different measure to reduce energy consumption.It is expected that there would be reduction in the subsidy burden of the government in two ways - reduction in specific energy consumption norms and import substitution on account of higher domestic production.

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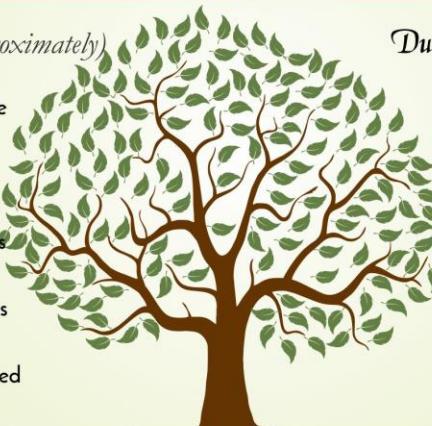
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