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India – Japan Relations

- Recent visit of Indian Prime Minister to Japan as part of the 13th Annual Summit in 2018, has shed light on the evolving dynamics of the Indo-Japan bilateral relationship against the backdrop of a changing but volatile global order. Both India and Japan are confronting similar challenges in the Indo-Pacific region. Therefore, cooperation between them, and that too on multiple fronts, is both obvious and desirable.

Indo-Pacific Region:

- Indo-Pacific came into trade half a century ago when Japan rose to prominence. Today, the entire Indian Ocean region has grown economically powerful.
- The global power axis has shifted from the Pacific-Atlantic to this region. Half of the world’s submarines will roam the Indo-Pacific region in the next two decades — at least half the world’s advanced combat aircraft, armed with extended range missiles, supported by sophisticated information networks, will also be operated by countries here.
- After the Trans-Pacific Partnership fiasco, it is likely that the role of the US in the region is going to significantly diminish under Trump. Although Trump talked tough about China, that was largely in the context of the US economy and jobs.
- With America’s role diminishing in the region, China can emerge as a powerful leader now. It has already built several new regional alliances through projects like One Belt One Road (OBOR), Maritime Silk Road, Asian Infrastructure Investment Bank (AIIB) and Shanghai Cooperation Organisation (SCO).
- Significantly, the rule-based global order is also coming under tremendous pressure in the region with countries violating established norms with impunity. Multilateral institutions like UN seem utterly helpless while countries continue with activities detrimental to regional peace. North Korea’s nuclear programme, developments in the South China Sea and increasing cyber violations are examples of this trend.
- Apart from the emotional acrimony that has festered between them for decades, Japan and China continue to spar over islands in the East China Sea which are competitively called Senkaku by Japan and Diaoyu by China.
- Under the circumstances, India can no longer remain a withdrawn nation in regional and global politics. India has recently started showing more interest in the UN’s affairs. It has played a crucial role at the Paris Climate Summit and became increasingly assertive about its rights in the Nuclear Suppliers Group, UN Security Council, etc.
- QUAD and growing relation with Japan is also one of the example of dynamism is Indo-Pacific Region.

Key Agreements:

- During the 13th Annual Indo-Japan Summit, some crucial agreements were signed
- A joint high speed rail project for which the first instalment of ₹5,500 crore was released by Japanese Industrial Cooperation Agency (JICA) a month before; increased naval cooperation between the Indian Navy and the Japan Maritime Self-Defense Force (JMSDF) in the Indo-Pacific region;
- A currency swap of $75 billion, which is expected to bring a sigh of relief amidst the looming threat of trade war and rapid depreciation of the rupee vis-a-vis the dollar; 2+2 agreements on the lines of the US;
Commencement of negotiations to finalise Acquisition and Cross-Servicing Agreements (ACSAs), which would allow both navies to access each other’s military bases for logistical purposes (India will be able to access the Japanese base in Djibouti and the Japanese navy could dock at Andaman and Nicobar).

Indo-Japan Relation:

- In addition to the strategic sphere, Japan is India’s third biggest economic investor.
- Between 2000 and 2017, Japan invested $25.6 billion in domains including infrastructure, retail, textiles, and consumer durables. Tokyo is involved in big-ticket projects like the Delhi-Mumbai Industrial Corridor (DMIC), the Mumbai-Ahmedabad bullet train, and setting up around 12 industrial parks across different States.
- Together, they have constituted the Japan-India Act East Forum (JICA), where the objective is to spearhead development cooperation in north-eastern States bordering China, Bangladesh, and Myanmar. JICA has signed a $610-million pact with the Centre for phase I of the North-East connectivity projects.
- Recent visit assumed greater importance, particularly for India, because it followed a rather unexpected meeting between Chinese President Xi Jinping and Japanese counterpart Shinzo Abe. Abe visited China for the first time in seven years and the fanfare on display was in stark contrast with the usually tensed China-Japan relationship.
- In the Asia-Africa Growth Corridor (AAGC), the leaders of the two countries have combined their respective countries’ “Act East” Policy and “Free and Open Indo Pacific” aspirations. The AAGC is envisioned to provide a renewed opportunity for partnership where both regions can complement each other’s development and growth. The AAGC will bring out the economic gains for Africa through its integration with India, South Asia, Southeast Asia, East Asia and Oceania. It is also a roadmap for creating new channels for production of goods and services, and for connecting institutions and people in Asia and Africa.

Road ahead:

- The Japan-China rapprochement is governed by multiple factors. Japan needs access to China’s market. To quote Abe himself, “China is an indispensable country for Japan to keep growing.”
- While for China, whose ambitious BRI project is facing hurdles and opposition over the issues of transparency and is constantly being reviewed by successive governments, partnering with Japan will be a much-needed boost to its image.
- China’s economy and currency are facing tough times owing to trade spatting with the US, and is willing to partner with other regional powers. Notwithstanding the diplomatic niceties, the contentious political issue between them remains. The Japan-America-India (JAI) trilateral summit on the sidelines of G-20, reiterating a free and open Indo-Pacific, hints that the Sino-Japan rapprochement could be “tactical” at best.
- However, these recent developments negate the typical “cold war” dynamics between China and the so-called democratic “Quad” that is increasingly being used to analyse the international politics in Asia.
- Major Asian powers are engaging with each other guided by economic rationale. Therefore, Asia is witnessing a strategic flux where power is diffused and demarcation of geopolitical interests are blurred.
- Given the scenario, it is pertinent for New Delhi to not adopt a zero-sum game approach and objectively contextualise the Indo-Japan strategic partnership amidst interchangeable variables of the emerging strategic equation.
The India-Japan engagements are not just focused on economic issues, but they also include a wide range of interests encompassing regional security, maritime issues, energy security and United Nations reforms. Both are formulating a strategic partnership to mitigate the risks and vulnerabilities arising out of the current transition of power in Asia. By closely cooperating on matters pertaining to Asian security, India and Japan are now investing in a long-term strategy to balance China’s hegemonic policies.
1.1 Cabinet clears Dena, Vijaya merger with Bank of Baroda

Context:

- The Union Cabinet chaired by Prime Minister Shri Narendra Modi has approved the scheme of amalgamation for amalgamating Bank of Baroda, Vijaya Bank and Dena Bank, with Bank of Baroda as the transferee bank and Vijaya Bank and Dena Bank as transferor banks.
- The amalgamation will be the first-ever three-way consolidation of banks in India, with the amalgamated bank being India's second largest Public Sector Bank. The amalgamation will help create a strong globally competitive bank with economies of scale and enable realisation of wide-ranging synergies. Leveraging of networks, low-cost deposits and subsidiaries of the three banks has the potential of yielding significant synergies for positioning the consolidated entity for substantial rise in customer base, market reach, operational efficiency, wider bouquet of products and services, and improved access for customers.

Scheme of amalgamation:

- Vijaya Bank and Dena Bank are transferor banks and BoB is transferee bank. The scheme shall come into force on 1.4.2019.
- Upon commencement of the scheme, the undertakings of the transferor banks as a going concern shall be transferred to and shall vest in the transferee bank, including, inter alia, all business, assets, rights, titles, claims, licenses, approvals and other privileges and all property, all borrowings, liabilities and obligations.
- Every permanent and regular officer or employee of the transferor banks shall become an officer or employee and shall hold his office or service therein in the transferee bank such that the pay and allowance offered to the employees/officers of transferor banks shall not be less favourable as compared to what they would have drawn in the respective transferor bank.
- The Board of the transferee bank shall ensure that the interests of all transferring employees and officers of the transferor bank are protected.
- The transferee bank shall issue shares to the shareholders of transferor banks as per share exchange ratio. Shareholders of the transferee bank and transferor banks shall be entitled to raise their grievances, if any, in relation to the share exchange ratio, through an expert committee.
- Strengths of the envisaged amalgamated entity
  - The amalgamated bank will be better equipped in the changing environment to meet the credit needs of a growing economy, absorb shocks and capacity to raise resources.
  - Economies of scale and wider scope would position it for improved profitability, wider product offerings, and adoption of technology and best practices across amalgamating entities for cost efficiency and improved risk management, and financial inclusion through wider reach.
  - It would also enable creation of a bank with scale comparable to global banks and capable of competing effectively in India and globally.
  - Strengths of individual banks - such as Dena Bank's relatively higher access to low-cost CASA deposits, Vijaya Bank's profitability and availability of capital for growth, and the extensive and global network and offerings of BoB will translate into advantages in terms of market reach, operational efficiencies and the ability to support a wider offering of product and services.
  - The amalgamated banks will have access to a wider talent pool, and a large database that may be leveraged through analytics for competitive advantage in a rapidly digitalising banking context.
  - Benefits would also flow as a result of wider reach and distribution network and reduction in distribution costs for the products and services through subsidiaries.
  - Public at large shall benefit in terms of enhanced access to banking services through a stronger
network, the ability to support a wider offering of product and services, and easy access to credit.

1.2 Challenges faced by Start-ups

Context:
- Citizens’ engagement forum LocalCircles has released a report on challenges faced by start-ups in India. The report is based on responses from over 15,000 start-ups, SMEs and entrepreneurs.

Challenge for start-ups:
- Corruption
- Bureaucratic inefficiencies.
- Securing loans.
- Funding

Angel tax:
- Angel tax is one area that falls under corruption and bureaucratic inefficiencies as it takes the focus of entrepreneurs away from building a product or service to responding to tax notices and filing appeals, something that start-ups can clearly do without.
- Angel tax continued to be a key pain point for start-ups, where the assessing officers in many cases reject the valuation method used by the start-up and instead treat the capital raised as income from other sources, thereby, raising a tax demand and penalty on the start-up.
- Several start-ups and angel investors have raised concerns over notices received from the authorities related to taxation of angel funds. The Centre has set up a panel to look into the taxation issues faced by start-ups and angel investors.

What is Angel Tax?
- Angel Tax is a 30% tax that is levied on the funding received by startups from an external investor. However, this 30% tax is levied when startups receive angel funding at a valuation higher than its ‘fair market value’. It is counted as income to the company and is taxed.
- The tax, under section 56(2)(viib), was introduced by in 2012 to fight money laundering. The stated rationale was that bribes and commissions could be disguised as angel investments to escape taxes. But given the possibility of this section being used to harass genuine startups, it was rarely invoked.

Why is Angel tax problematic?
- There is no definitive or objective way to measure the ‘fair market value’ of a startup. Investors pay a premium for the idea and the business potential at the angel funding stage. However, tax officials seem to be assessing the value of the startups based on their net asset value at one point. Several startups say that they find it difficult to justify the higher valuation to tax officials.
- In a notification dated May 24, 2018, the Central Board of Direct Taxes (CBDT) had exempted
angel investors from the Angel Tax clause subject to fulfilment of certain terms and conditions, as specified by the Department of Industrial Policy and Promotion (DIPP). However, despite the exemption notification, there are a host of challenges that startups are still faced with, in order to get this exemption.

1.3 Changes in Angel Tax

Context:
- The government has notified changes to Section 56 of the Income Tax Act, in a move that brings relief to start-up founders and investors dealing with the issue of “Angel Tax”.

Major Changes introduced:
- As per the changes, all DIPP-recognised start-ups can apply to the department for approvals requesting exemption from Angel Tax, or Section 56 2 (viib) of the Income Tax Act, which will then be sent to the Central Board of Direct Taxes (CBDT) for approval.
- The changes are applicable to start-ups, recognised by DIPP, where the amount of paid-up share capital, and share premium of the capital after the proposed issue of share does not exceed Rs. 10 crore.
- The notification specifies a list of documents that start-ups will have to submit to the DIPP while seeking approval. The CBDT is mandated to either approve or reject the applications within 45 days.

What is the latest issue?
- At least 80 startups have received notices to pay angel tax since last year. Many founders have said they have been asked to pay up as much as 30% of their funding as tax. Angels have also received multiple notices asking them to furnish details on their source of income, their bank account statements and other financial data.

Way ahead:
- The changes proposed do not ensure that start-ups will no longer receive notices on angel tax from the tax department. The startup community views this as a step in the right direction, but insists that the issues facing founders and investors due to angel tax remain unaddressed through the notification.

1.4 Contempt notices to the RBI

Context:
- The Supreme Court has issued contempt notices to the RBI for failing to reveal under the Right to Information Act intelligence received on loan defaulters and details of action taken against banks in connection with fraud.

What is contempt under the Indian law?
- In India, the Contempt of Courts Act, 1971, divides contempt into civil contempt and criminal contempt.
- Civil contempt is a ‘wilful disobedience to any judgment, decree, direction, order, writ or other processes of a Court or wilful breach of an undertaking given to the court’.
- ‘Criminal contempt’ is ‘the publication (whether by words, spoken or written, or by signs, or by visible representation, or otherwise) of any matter or the doing of any other act whatsoever which:
  - Scandalises or tends to scandalise, or lowers or tends to lower the authority of, any court.
  - Prejudices, or interferes or tends to interfere with the due course of any judicial proceeding.
  - Interferes or tends to interfere with, or obstructs or tends to obstruct, the administration of justice in any other manner.’

Significance:
Judiciary ensures justice and equality to every individual and institutions, therefore, the makers of the constitution upheld the sanctity and prestige of the revered institution by placing provisions under articles 129 and 215 of the constitution, which enables the courts to hold individuals in contempt if they attempt to demean or belittle their authority.

Is criticism allowed?

Yes. The Contempt of Courts Act, 1971, very clearly states that fair criticism of any case which has been heard and decided is not contempt.

2016 Amendment:

- The statute of 1971 has recently been amended by the Contempt of Courts (Amendment) Act, 2006 to include the defence of truth under Section 13 of the original legislation.
- Section 13 that already served to restrict the powers of the court in that they were not to hold anyone in contempt unless it would substantially interfere with the due process of justice, the amendment further states that the court must permit ‘justification by truth as a valid defence if it is satisfied that it is in public interest and the request for invoking the said defence is bona fide.’

1.5 Delhi government has decided to introduce Minimum Support Price (MSP)

Context:

- The Delhi government has decided to introduce Minimum Support Price (MSP) for farmers based on the report of the MS Swaminathan Commission.

Background:

- A three-member committee was formed in December to study the MS Swaminathan Commission’s report. The committee has submitted its report. The report will be put before experts for suggestions. Once the MSP is finalised, the government will hold meetings with farmers, seeking their views and thereafter it will be sent to the Cabinet.

The Swaminathan Commission—Inception:

- The National Commission on Farmers (NCF), with MS Swaminathan as its chairman, was formed in 2004.
- Aim: To come up with a system for sustainability in farming system and make it more profitable and cost competitive in farm commodities. To also recommend measures for credit and other marketing steps.
- The commission submitted five reports between December 2004 and October 2006. The fifth and final report is considered the most crucial as it contains suggestions for the agriculture sector as a whole.

The Commission’s observations:

- Farmers need an assured access to and control over basic resources of farming. These include land, water, fertilizers and pesticides, credit and crop insurance. Knowledge of farming technology and markets is also key.
- Farmers’ concerns and other agriculture-related issues must be implemented in the concurrent list, to make it a high priority for both state and central governments.

Key recommendations of the Commission:

- Distribute ceiling-surplus and wasteland among farmers, prevent the non-agricultural use of farmland, secure grazing rights and seasonal forest access to forest tribals.
- Establish a National Land Use Advisory Service, which would link land use decisions with ecological and marketing factors of season and geography-specific basis.
- Reform irrigation resources and its distribution among farmers. Use rainwater harvesting, water level recharging to increase water supply.
- Spread outreach of institutional credit by reducing crop loan interest rates, provide a moratorium on debt recovery, agricultural risk fund and a separate Kisan Credit Card for women.
farmers.

- To address the growing farmer suicides, **provide affordable health insurance at primary health centres in rural areas**. The recommendations included an extension of national rural health mission to suicide-prone areas. Restructuring of microfinance policies, covering all crops by insurance and social security net for support were also sought.

- **Give farmers a minimum support price at 50% profit** above the cost of production classified as C2 by the Commission for Agricultural Costs and Prices (CACP).

### 1.6 EXIM bank

**Context:**

- Cabinet approves ₹6,000 crore capital infusion in Exim Bank and an increase in the Exim Bank authorised capital from ₹10,000 crore to ₹20,000 crore.

**EXIM bank:**

- Export–Import Bank of India was established in 1982 **under the Export-Import Bank of India Act 1981**.
- It provides direct financial assistance to exporters of plant, machinery and related service in the form of medium-term credit.
- Underwriting the issue of shares, stocks, bonds, debentures of any company engaged in exports.
- It provides rediscount of export bills for a period not exceeding 90 days against short-term usance export bills discounted by commercial banks.
- The bank gives overseas buyers credit to foreign importers for import of Indian capital goods and related services.
- Developing and financing export oriented industries.

### 1.7 Fugitive Economic Offender

**Context:**

- Vijay Mallya has become the first person to be declared a fugitive offender under the Fugitive Economic Offenders Act. The order was passed under Section 2F of FEOA against Mallya by the PMLA court.
- The investigative agency can now confiscate properties of Mallya which are not directly related to the cases against him.

**Background:**

- The decision comes against an application by the Enforcement Directorate before the special Prevention of Money Laundering Act (PMLA) court to classify Mallya as a fugitive economic offender.

**Fugitive Economic Offender:**

- The fugitive economic offenders’ law came into force in August last year. A person can be named an offender under this law if there is an arrest warrant against him or her for involvement in economic offences involving at least Rs. 100 crore or more and has fled from India to escape legal action.

**The procedure:**

- The investigating agencies have to file an application in a Special Court under the Prevention of Money-Laundering Act, 2002 containing details of the properties to be confiscated, and any information about the person’s whereabouts.
- The Special Court will issue a notice for the person to appear at a specified place and date at least six weeks from the issue of notice.
- Proceedings will be terminated if the person appears. If not the person would be declared as a...
Fugitive Economic Offender based on the evidence filed by the investigating agencies.

- The person who is declared as a Fugitive Economic Offender can challenge the proclamation in the High Court within 30 days of such declaration according to the Fugitive Economic Offenders Act, 2018.

### 1.8 Future of Consumption in Fast-Growth Consumer Market – India

**Context:**
- WEF has released a report titled Future of Consumption in Fast-Growth Consumer Market – India.

**Highlights of the report:**
- As per the report, domestic private consumption, which accounts for a major portion of India’s gross domestic product (GDP), is expected to develop into a $6 trillion growth opportunity that would make India the world’s third-largest economy by 2030. Currently it is at $1.5 trillion.
- The potential, however, offers both challenges and opportunities as India would have to address critical societal issues, including skill development and employment of the future workforce, socio-economic inclusion of rural India and creating a healthy and sustainable future for its citizens.
- If realised, this would make India’s consumer market, the third-largest in the world, behind the U.S. and China.

**Major driving factors:**
- The future of consumption in India in 2030 is anchored in rising incomes and a broad-based pattern of growth and benefit sharing.
- The growth of the middle class would lift nearly 25 million households out of poverty and further, India would have 700 million millennials and Gen Z consumers, who have grown up in a more open and confident country.

**Challenges ahead:**
- The potential would only materialise if business and policy-makers pursue an inclusive approach towards the economic and consumption growth. The study identified three critical societal challenges that need to be addressed.
- Skill gaps: With nearly 10-12 million working-age people expected to emerge in India over the next decade, the country faces a huge challenge in providing the workforce with the right skills. More than one-half of Indian workers will require reskilling by 2022 to meet the talent demands of the future, stated the report.
- Access-barriers: India will have to manage socio-economic inclusion of rural India as, by 2030, 40% of Indians will be urban residents. Physical connectivity, digital connectivity and financial inclusion income is constraining the spending and well-being of rural dwellers, and these ‘access-barriers’ need to be addressed to ensure social and economic inclusion in India over the next decade.
- Business and policy-makers will have to take the initiative on improving health and liveability for India’s citizens by providing them with access to affordable healthcare, promoting sustainable development, and seeking solutions to urban congestion.

### 1.9 Global Economy Watch report

**Context:**
- Global Economy Watch report has been released by London based multinational professional services network- PricewaterhouseCoopers (PwC).
- PwC’s Global Economy Watch is a short publication that looks at the trends and issues affecting the global economy and details its latest projections for the world’s leading economies.
A look at India’s economy in 2019 as per the report:

- India is likely to surpass the United Kingdom in the world’s largest economy rankings in 2019.
- As per the report, while the UK and France have regularly switched places owing to similar levels of development and roughly equal populations, India’s climb up the rankings is likely to be permanent.
- The report projects real GDP growth of 1.6% for the UK, 1.7% for France and 7.6% for India in 2019.
- As per the report, **India should return to a healthy growth rate of 7.6% in 2019-20, if there are no major headwinds in the global economy** such as enhanced trade tensions or supply side shocks in oil.
- The growth will be supported through further realisation of efficiency gains from the newly adopted GST and policy impetus expected in the first year of a new government.

Global Scenario:

- The report notes that global economy as a whole is expected to slow in 2019 as G7 countries return to long-run average growth rates.
- PwC expects that the pick-up in growth of most major economies seen between the end of 2016 and the beginning of 2018 is now over.
- The report also notes that workers and wages will come to the fore and trade conflicts will deepen. The main focus of tensions is likely to remain US-China trade, but there will always be the risk of this escalating into a wider trade conflict and businesses accordingly need to plan for different scenarios.

### 1.10 Gold Monetization Scheme

**Context:**
- Reserve Bank of India has allowed central and state governments and entities owned by them to deposit gold under its **Gold Monetization Scheme**. Furthermore, charitable institutions have also been made eligible to deposit gold with banks to earn interest under the program.

**Gold Monetization Scheme:**
- Gold Monetization Scheme was launched in 2015. The basic **aim of this scheme is to monetise all the gold which is lying idle with individuals or institutions like banks**.

**The key features of Gold Monetization scheme are as follows:**
- The persons can open Gold Saving Account in designated banks and anyone can deposit physical gold via BIS certified collection, purity testing centres (CPTCs). The minimum amount of gold thus deposited is 30 gms, no upper limit.
- The gold is deposited for short term (1-3 years), medium term (5-7 years) and long term (12-15 years).
- The gold thus collected is sent to refineries and banks have tripartite / bipartite agreements with refineries and CPTCs.
- On maturity, one can get back the cash / physical gold for short term deposits and cash only for long term deposits.
- The scheme allows banks’ customers to deposit their idle gold holdings for a fixed period in return for interest in the range of 2.25 per cent to 2.50 per cent.

### 1.11 Goods and Services Tax Appellate Tribunal (GSTAT)

**Context:**
- Cabinet has approved creation of National Bench of the Goods and Services Tax Appellate...
Tribunal (GSTAT).

Key facts:
- It shall be situated at New Delhi.
- Presided over by its President and shall consist of one Technical Member (Centre) and one Technical Member (State).
- It is the forum of second appeal in GST laws and the first common forum of dispute resolution between Centre and States.
- The appeals against the orders in first appeals issued by the Appellate Authorities under the Central and State GST Acts lie before the GST Appellate Tribunal, which is common under the Central as well as State GST Acts.

Legal provisions:
- CGST Act provides for the Appeal and Review Mechanism for dispute resolution under the GST Regime. The Act empowers the Central Government to constitute, on the recommendation of Council, by notification, with effect from such date as may be specified therein, an Appellate Tribunal known as the Goods and Services Tax Appellate Tribunal for hearing appeals against the orders passed by the Appellate Authority or the Revisional Authority.

Significance:
- Being a common forum, GST Appellate Tribunal will ensure that there is uniformity in redressal of disputes arising under GST, and therefore, in implementation of GST across the country.

1.12 GST Council

Context:
- The GST Council in its recently held 32nd meeting took a slew of decisions aimed at reducing the tax and compliance burden on small and medium enterprises.

Measures announced:
- The annual turnover limit under which companies would be exempt from GST has been raised to ₹40 lakh for most States and ₹20 lakh for the North Eastern and hill states, from the earlier limit of ₹20 lakh and ₹10 lakh, respectively.
- The limit for eligibility for the Composition Scheme is raised to an annual turnover of ₹1.5 crore from April 1, 2019. So far, only manufacturers and traders were eligible for this scheme. The Scheme now has been extended to small service providers with an annual turnover of up to ₹50 lakh, at a tax rate of 6%.
- Kerala can levy a cess of up to 1% for up to two years on intra-State supplies to help finance the disaster relief efforts following the recent floods in the state.

Implications and outcomes of these measures:
- A very large part of GST revenue comes from the formal sector and large companies. These measures have been taken to help the small and medium companies. The revenue impact due to these will be minimal.
- Allowing disaster cess of 1% to be introduced in the State of Kerala on local supplies may be an administrative issue for both businesses and government and this may set a precedence for other States to demand additional levy.
- Increasing the GST threshold limit would allow about 10 lakh traders to be exempt from the compliance burden of GST, and increasing the Composition Scheme limit would benefit about 20 lakh small businesses that fall between the annual turnover brackets of ₹1 crore and ₹1.5 crore.
- The Composition Scheme currently allows companies with an annual turnover of up to ₹1 crore to opt for it, and file returns on a quarterly basis at a nominal rate of 1%
GST Council:
- The GST council is the key decision-making body that will take all important decisions regarding the GST. The GST Council dictates tax rate, tax exemption, the due date of forms, tax laws, and tax deadlines, keeping in mind special rates and provisions for some states. The predominant responsibility of the GST Council is to ensure to have one uniform tax rate for goods and services across the nation.

How is the GST Council structured?
- The Goods and Services Tax (GST) is governed by the GST Council. Article 279 (1) of the amended Indian Constitution states that the GST Council has to be constituted by the President within 60 days of the commencement of the Article 279A.

According to the article, GST Council will be a joint forum for the Centre and the States. It consists of the following members:
- The Union Finance Minister will be the Chairperson
- As a member, the Union Minister of State will be in charge of Revenue of Finance
- The Minister in charge of finance or taxation or any other Minister nominated by each State government, as members.

GST Council recommendations:
- Article 279A (4) specifies that the Council will make recommendations to the Union and the States on the important issues related to GST, such as, the goods and services will be subject or exempted from the Goods and Services Tax.

1.13 MUDRA Scheme

Context:
- The finance ministry has asked the banks to review all loans sanctioned under the Pradhan Mantri Mudra Yojana (PMMY or Mudra loan scheme), as the non-performing assets (NPA) have crossed Rs 11,000 crore within three years of the launch of the scheme.

Background:
- The rising NPAs under the scheme are a matter of concern. It is already three years and there is a need to review how the banks are sanctioning the loans. The RBI has already flagged its concerns regarding the bad loans to the government.

What went wrong?
**Pradhan Mantri MUDRA Yojana (PMMY) scheme:**

- The PMMY Scheme was launched in April, 2015. The scheme’s objective is to **refinance collateral-free loans given by the lenders to small borrowers**.
- The scheme, which has a corpus of Rs 20,000 crore, can lend between Rs 50,000 and Rs 10 lakh to small entrepreneurs.
- Banks and MFIs can draw **refinance under the MUDRA Scheme** after becoming member-lending institutions of MUDRA.
- **Mudra Loans are available for non-agricultural activities up to Rs. 10 lakh and activities allied to agriculture** such as Dairy, Poultry, Bee Keeping etc, are also covered.
- **Mudra’s unique features include a Mudra Card** which permits access to Working Capital through ATMs and Card Machines.

**There are three types of loans under PMMY:**

- **Shishu** (up to Rs.50,000).
- **Kishore** (from Rs.50,001 to Rs.5 lakh).
- **Tarun** (from Rs.500,001 to Rs.10,00,000).

**Objectives of the scheme:**

- **Fund the unfunded:** Those who have a business plan to generate income from a non-farm activity like manufacturing, processing, trading or service sector but don’t have enough capital to invest can take loans up to Rs 10 lakh.
- **Micro finance institutions (MFI) monitoring and regulation:** With the help of MUDRA bank, the network of microfinance institutions will be monitored. New registration will also be done.
- **Promote financial inclusion:** With the aim to reach Last mile credit delivery to micro businesses taking help of technology solutions, it further adds to the vision of financial inclusion.
- **Reduce jobless economic growth:** Providing micro enterprises with credit facility will help generate employment sources and an overall increase in GDP.
- **Integration of Informal economy into Formal sector:** It will help India also grow its tax base as incomes from the informal sector are non-taxed.

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**1.14 Nandan Nilekani Committee**

**Context:**

The Reserve Bank of India (RBI) has constituted a high-level committee under Nandan Nilekani to suggest measures to strengthen the safety and security of digital payments in the country.

**RBI has provided the following terms of reference for the committee:**

- To encourage digitisation of payments and enhance financial inclusion through digitization.
- Reviewing the existing status of digitisation of payments in the country, identifying the current gaps in the ecosystem and suggesting ways to bridge them.
- Assessing the current levels of digital payments in financial inclusion.
- Suggest measures to strengthen the safety and security of digital payments.
- Suggest a road map for increasing customer confidence and trust while accessing financial services through digital modes.
- Undertake cross-country analysis to identify best practices to accelerate digitisation of the economy and financial inclusion through greater use of digital payments.
Suggest a medium-term strategy for deepening of digital payments.

1.15 National Anti-Profiteering Authority (NAA)

Context:
- The National Anti-Profiteering Authority (NAA) has been constituted under Section 171 of the Central Goods and Services Tax Act, 2017.
- It is to ensure the reduction in rate of tax or the benefit of input tax credit is passed on to the recipient by way of commensurate reduction in prices.

NAA has taken the following steps for customers get the full benefit of tax cuts:
- Holding regular meetings with the Zonal Screening Committees and the Chief Commissioners of Central Tax to stress upon consumer awareness programs.
- Launching a helpline to resolve the queries of citizens regarding registration of complaints against profiteering.
- Receiving complaints through email and NAA portal.
- Working with consumer welfare organizations to facilitate outreach activities.
- A number of complaints regarding companies not passing on the full benefits of tax cuts to consumers have been received by the National Anti-Profiteering Authority (NAA).

Vision and Mission of NAA:
- The National Anti-profiteering Authority (NAA) is the institutional mechanism under GST law to check the unfair profit-making activities by the trading community.
- The Authority’s core function is to ensure that the benefits of the reduction is GST rates on goods and services made by GST Council and proportional change in the Input tax credit passed on to the ultimate consumers and recipient respectively by way of reduction in the prices by the suppliers.
- This institutional framework comprises the NAA, a Standing Committee, Screening Committees in every State and the Directorate General of Safeguards in the Central Board of Excise & Customs (CBEC).

1.16 Survey on Retail Payment Habits of Individuals (SRPHi)

What is it?
- It is a survey launched by the Reserve Bank of India (RBI). The survey will capture payment habits of individuals in six cities, including four metropolitan towns.

Key facts:
- The survey will cover a sample of 6,000 individuals from various socio-economic backgrounds across six cities — Delhi, Mumbai, Kolkata, Chennai, Bengaluru and Guwahati.
- The survey seeks qualitative responses from individuals on their payment habits.
- The findings may provide some idea about awareness and usage habits of digital payment products.

1.17 Tokenization

Context:
- The Reserve Bank of India has allowed tokenization of debit, credit and prepaid card transactions to enhance the safety of the digital payments ecosystem in the country.
- The bank has offered permission for the process using all types of payment services and methods, including near-field communication (NFC), magnetic secure transmission (MST), in-app payment methods and cloud services.

What is Tokenization?
Tokenization will replace card details with a code, called a “token,” which will be specifically for the card, the token requestor and the device being used to pay. Instead of the card’s details, the token will act as the card at point of sale (POS) terminals and quick response (QR) code payment systems. The goal of the process is to improve the safety and security of payments.

1.18 Universal Basic Income scheme

Context:
- Sikkim’s ruling party, the Sikkim Democratic Front (SDF), recently declared to include the Universal Basic Income scheme in its manifesto ahead of the Assembly election in 2019 and aims to implement it by 2022. If everything goes according to the plan, it will be the first state to implement UBI in India.

Sikkim has set up examples in the country in different areas in the past also, some of them being:
- Sikkim is the best state for women in the workplace, thanks to its high rates of female workforce participation, there’s less crime against women.
- Sikkim’s literacy rate increased to 82.2% from 68.8% in 2001, among the country’s highest.
- Sikkim is the least populated state in India, has its per capita GDP growing in double digits since 2004-05.
- Sikkim also decreased its poverty ratio by 22% to 51,000 (8.2%) in 2011-12 from 1.7 lakh (30.9%) in 2004-05.
- Sikkim also became the first fully organic state.

What is Universal Basic Income?
- Universal Basic Income (UBI) is a programme for providing all citizens of a country or other geographic area/state with a given sum of money, regardless of their income, resources or employment status.
- The main idea behind UBI is to prevent or reduce poverty and increase equality among citizens. The essential principle behind Universal basic income is the idea that all citizens are entitled to a livable income, irrespective of the circumstances they’re born in.
2.1 Agreement on Prohibition of Attacks against Nuclear Installations and Facilities

Context:
- Both India and Pakistan have exchanged their list of nuclear installations. The exchange was in accordance with the Agreement on Prohibition of Attacks against Nuclear Installations and Facilities between Pakistan and India.

Background:
- The exchange is done each year on January 1, under the Agreement on the Prohibition of Attack against Nuclear Installations and Facilities, also referred to as the Non-Nuclear Aggression Agreement.

Agreement on the Prohibition of Attack against Nuclear Installations:
- The agreement, which was signed on December 31, 1988, and entered into force on January 27, 1991, provides that the two countries inform each other of nuclear installations and facilities to be covered under the pact on the first of January of every calendar year.

Significance of the agreement:
- The need for the agreement had been felt against the backdrop of Israel’s 1981 bombing of Iraq’s Osirak reactor near Baghdad. The strike, carried out by Israeli fighter jets over hostile airspace, had set Iraq’s nuclear weapons programme significantly.
- The agreement had also come at a time of deep anxiety for Pakistan. Islamabad had been rattled by the memory of the 1972 defeat which dismembered the country, and military developments in India, such as Operation Brasstacks in 1987, which was a wargame exercise to prepare for deep strike offensive capabilities. Pakistan had at the time responded by putting at its nuclear installations and assets on ‘high alert’.

2.2 Anti-dumping duty imposed on Chinese chemical import

- The government has imposed an anti-dumping duty on a chemical from China, used in photography and manufacturing of dyes, for five years to protect domestic producers of the chemical intermediate from cheap shipments.
- The anti-dumping duty on Meta Phenylene diamine (MPDA) imported from China will be in the range USD 573.92-USD 1,015.44 a tonne, according to a notification of the Central Board of Indirect Taxes and Customs (CBIC).
- It is for the second time in a row that anti-dumping duty has been imposed on the import of the chemical from China. The duty was to expire in March 2019.
- The levy has been imposed after the Directorate General of Trade Remedies (DGTR), under the Ministry of Commerce and Industry, made a recommendation for the same. DGTR was earlier known as the Directorate General of Anti-dumping and Allied Duties (DGAD).
- On the recommendation of DGAD, a definitive anti-dumping duty was imposed on the chemical in March 2014.
- Later, Aarti Industries filed an application before DGAD for review and continuation of the duty on the chemical.
- Following ‘Sunset Review’ of an anti-dumping investigation on the imports of MPDA, the DGTR recommended for imposition of the levy for another five years.
- MPDA is a chemical intermediate used for manufacturing dyes, engineering polymer and in photography and medical applications.
- Under normal (room) conditions, it is a colourless or white colour solid, which tends to turn red, purple (dark colour) in air, on storage.
- Countries carry out the anti-dumping probe to determine whether the domestic industries have
been hurt because of a surge in cheap imports.

- As a counter measure, they impose duties under the multilateral regime of the World Trade Organization.
- The duty is aimed at ensuring fair trading practices and creating a level-playing field for domestic producers with regard to foreign producers and exporters.

**Anti-Dumping Duty**

- An anti-dumping duty is a protectionist tariff that a domestic government imposes on foreign imports that it believes are priced below fair market value.
- Dumping is a process where a company exports a product at a price lower than the price it normally charges in its own home market.
- To protect local businesses and markets, many countries impose stiff duties on products they believe are being dumped in their national market.

### 2.3 Asia Reassurance Initiative Act

**Context:**

- U.S. President Donald J. Trump has signed into law the Asia Reassurance Initiative Act (ARIA), which has already been passed by the U.S. Senate.
- **The ARIA Act, specifically, calls for America’s increased engagement in the Indo-Pacific region and strengthened support**, including arms sales, for U.S. allies in the region.
- The act develops a long-term strategic vision and a comprehensive, multifaceted, and principled United States policy for the Indo-Pacific region.

**Key highlights of the Act:**

**Security Interests:**

- Authorizes US$ 1.5 billion annually for 5 years to enhance U.S. presence in the Indo-Pacific.
- Reaffirms U.S. security commitments to our allies in the Indo-Pacific, including Japan, South Korea, and Australia and builds security partnerships with nations in Southeast Asia.
- Establishes a policy goal to peacefully denuclearize North Korea though the campaign of maximum pressure and engagement.
- Enhances the U.S. diplomatic, economic, and security relationship with India.
- Enforces U.S. freedom of navigation and overflight rights in the Indo-Pacific.
- Expresses support for regular arms sales to Taiwan and to enhance the economic, political, and security relationship between Taiwan and the United States.
- Promotes robust cybersecurity cooperation with our allies in the region.
- Sets U.S. policy to pursue effective arms control and nuclear nonproliferation policies in the Indo-Pacific region.

**Economic Engagement:**

- Promotes economic cooperation in the Indo-Pacific region as essential for the growth of the U.S. economy and success of American businesses.
- Authorizes bilateral and multilateral trade negotiations with Indo-Pacific nations.
- Provides for robust U.S. commercial presence throughout the Indo-Pacific region to promote U.S. exports and additional trade facilitation efforts.
- Authorizes the imposition of penalties on entities and governments engaged in the theft of United States intellectual property.
- Requires a new comprehensive U.S. policy to promote energy exports.

**Promoting Values:**

- Provides US$ 150 million annually for 5 years for democracy, rule of law, and civil society support, including $10 million annually for freedom of information efforts in North Korea.
Call for additional U.S. efforts against trafficking-in-persons and human slavery; and Authorizes U.S. sanctions against human rights abusers.

2.4 Democracy Index 2018

Context:
- Democracy Index 2018 has been released. It is released annually by The Economist.
- The EIU Democracy Index provides a snapshot of the state of world democracy for 165 independent states and two territories.
- The Democracy Index is based on five categories: electoral process and pluralism; civil liberties; the functioning of government; political participation; and political culture. Based on their scores on 60 indicators within these categories, each country is then itself classified as one of four types of regime: full democracy; flawed democracy; hybrid regime; and authoritarian regime.

Performance of India:
- India is ranked at 41 – a notch above last year. It is still classified as a ‘flawed democracy’ according to the index. India achieved a score of 7.23 on the index to maintain its position – the same it did last year. This is the lowest ever score attributed to India in the index ever since its publication.
- India ranks below the US (ranked 25th in the index) and other so called ‘flawed democracies’ like Italy, France, Botswana and South Africa.

2.5 Ease of Doing Business Index

Context:
- Asia Competitiveness Institute’s (ACI) has released its Ease of Doing Business Index on Attractiveness to Investors, Business Friendliness and Competitive Policies (EDB Index ABC).
- Performance of Indian states: Andhra Pradesh has topped the list. It is followed by Maharashtra and Delhi.
- Asia Competitiveness Institute at Lee Kuan Yew School of Public Policy, National University of Singapore was established as a research centre in 2006 with an aim to build intellectual leadership and network for understanding and developing competitiveness in the Asia region.

2.6 Gilgit-Baltistan

Context:
- India has lodged a strong protest on recent order by Supreme Court of Pakistan on the so-called “Gilgit-Baltistan” which is an interference in India’s internal affairs.

What’s the issue?
- The Supreme Court of Pakistan has extended its powers to Gilgit-Baltistan regarding the area’s constitutional status. The order states that changes to the constitutional status of Gilgit-Baltistan will be determined through a referendum which will be held within 14 days. It further read that until then, people living in the area and in Kashmir will be given fundamental human rights.

What has India said?
- Entire state of Jammu and Kashmir, which also includes the so-called ‘Gilgit-Baltistan’ has been, is and shall remain an integral part of India. Pakistan government or judiciary have no locus standi on territories illegally and forcibly occupied by it. Any action to alter the status of these occupied territories by Pakistan has no legal basis whatsoever.

Where is Gilgit Baltistan located?
- Located in the northern Pakistan. It borders China in the North, Afghanistan in the west, Tajikistan in the north west and Kashmir in the south east.
It shares a geographical boundary with Pakistan-occupied Kashmir, and India considers it as part of the undivided Jammu and Kashmir, while Pakistan sees it as a separate from PoK. **It has a regional Assembly and an elected Chief Minister.**

- The USD 46 billion China-Pakistan Economic Corridor (CPEC) also passes through this region.
- Gilgit-Baltistan is home to five of the “eight-thousanders” and to more than fifty peaks above 7,000 metres (23,000 ft). Three of the world’s longest glaciers outside the polar regions are found in Gilgit-Baltistan.

**Recent developments:**
- Pakistan, in 2017, proposed to declare the strategic Gilgit-Baltistan region as its fifth Province, a move that may raise concerns in India as it borders the disputed Pakistan-occupied Kashmir.

**Why it wants to declare as fifth province?**
- With a $50 billion investment in the CPEC, China would hardly want the territory through which the route passes to have a dubious status.
- Pakistan wants to give the impression of freezing its territorial ambitions in J&K in order to concentrate on the CPEC and remove any misgivings that the Chinese may have on the status of GB.
- Declaration will also help Pakistan to tap the fresh water resources in the region and to make use of it for agriculture, hydroelectricity generation etc.
- Such move can also help China to get increased access in region and counter India jointly with Pakistan.

**Impediments ahead:**
- Gilgit- Baltistan is part of J&K and any such move would seriously damage Pakistan’s Kashmir case. Two UN resolutions of August 13, 1948 and January 5, 1949 clearly established a link between GB and the Kashmir issue.
- **Making the region its fifth province would thus violate the Karachi Agreement**, perhaps the only instrument that provides doubtful legal authority to Pakistan’s administration of Gilgit-Baltistan, as well as the UN resolutions that would damage its position on the Kashmir issue.
- Any such move would also be violative of the 1963 Pak-China Boundary Agreement that calls for the sovereign authority to reopen negotiations with China “after the settlement of the Kashmir dispute between Pakistan and India” and of the 1972 Simla Agreement that mentions that “neither side shall unilaterally alter the situation”
- Pakistan would also have to overcome the adverse reaction of Kashmiris on both sides of the LoC. While it can manage the reaction of people in “AJK”, its constituency in J&K would be seriously damaged. Hurriyat leaders have already made this known.

### 2.7 Henley Passport Index 2019

**Context:**
- **Henley Passport Index 2019 has been released.** The Index is based on data provided by the International Air Transport Authority (IATA) and covers 199 passports and 227 travel destinations.

**Background:**
- The Henley Passport Index (HPI) is a global ranking of countries according to the travel freedom for their citizens. It started in 2006 as Henley & Partners Visa Restrictions Index (HVRI) and was modified and renamed in January 2018.

**Definition:**
- The HPI consists of a ranking of passports according to how many other territories can be reached ‘visa-free’ (defined below). All distinct destination countries and territories in the IATA database are considered.
Rankings of various countries:

- India jumped two positions from 81st in 2018 to 79th this year.
- Japan retained its top spot as the world’s most travel-friendly passport due to the document’s access to 190 countries.
- Afghanistan, Pakistan and Nepal ranked further low at 104, 102 and 94 respectively.
- South Korea edged up the ranking from October’s index to join Singapore, offering access to 189 jurisdictions.
- China jumped almost 20 places in just two years, from 85th in 2017 to 69th this year.
- European countries also performed favourably, with European Union member states along with Norway and the US filling in the places behind the top three nations although the UK continues to drop down the rankings, along with the US.

### 2.8 IMBEX 2018-2019

**What is it?**

- It is India-Myanmar bilateral army exercise. IMBEX 2018-19, is being held in Haryana. It is the second edition of the IMBEX.

**Main Objective of IMBEX 2018-19:**

- Train the Myanmar delegation for participation in United Nations peacekeeping operations under the UN flag.

### 2.9 India U.S 2+2 meeting

**Content:**

- Recognizing their two countries are strategic partners, major and independent stakeholders in world affairs, the Ministers committed to work together on regional and global issues, including in bilateral, trilateral, and quadrilateral formats.
- The two sides further decided to establish secure communication between the Minister of External Affairs of India and the U.S. Secretary of State, and between the Minister of Defence of India and the U.S. Secretary of Defense, to help maintain regular high-level communication on emerging developments.

**Strengthening the Defense and Security Partnership:**

- The Ministers welcomed the inclusion of India by the United States among the top tier of countries entitled to license-free exports, re-exports, and transfers under **License Exception Strategic Trade Authorization (STA-1)** and committed to explore other means to support further expansion in two-way trade in defense manufacturing supply chain linkages.
- They welcomed the signing of a **Communications Compatibility and Security Agreement (COMCASA)**, facilitate access to advanced defense systems and enable India to optimally utilize its existing U.S. origin platforms.
- The Ministers announced their readiness to begin negotiations on an **Industrial Security Annex (ISA)** that would support closer defense industry cooperation and collaboration.
- After recognizing the recent bilateral engagements, the Ministers committed to start exchanges between the S. Naval Forces Central Command (NAVCENT) and the Indian Navy, underscoring the importance of deepening their maritime cooperation in the western Indian Ocean.
- Through the **Defense Technology and Trade Initiative (DTTI)**, the ministers committed to prioritize co-production and co-development projects to pursue other avenues of defense innovation cooperation. Further they welcomed the conclusion of a Memorandum of Intent between the S. Defense Innovation Unit (DIU) and the Indian Defense Innovation...

- The Ministers announced to increase information-sharing efforts on known or suspected terrorists and to implement **UN Security Council Resolution 2396** on returning foreign terrorist fighters.

Partners in the Indo-Pacific and Beyond:

- The Ministers reaffirmed their shared commitment to a united, sovereign, democratic, inclusive, stable, prosperous, and peaceful Afghanistan. The two sides expressed their support for an Afghan-led, Afghan-owned peace and reconciliation process.

- **India welcomed the recent U.S. – North Korea summit.** The two sides pledged to work together to counter North Korea’s weapons of mass destruction programs and to hold accountable those countries that have supported them.

- The United States welcomed India’s accession to the Australia Group, the Wassenaar Arrangement, and the **Missile Technology Control Regime** and reiterated its full support for India’s immediate accession to the **Nuclear Suppliers Group**.

Promoting Prosperity and People-to People Ties:

- Both countries committed to further expanding and balancing the trade and economic partnership consistent with their leaders’ 2017 joint statement, including by facilitating trade, improving market access, and addressing issues of interest to both sides.

- Thus, both sides welcomed the ongoing exchanges between the Ministry of Commerce of India and the Office of the United States Trade Representative and hoped for mutually acceptable outcomes.

- Both sides looked forward to full implementation of the civil nuclear energy partnership and collaboration between **Nuclear Power Corporation of India Limited (NPCIL)** and **Westinghouse Electric Company** for the establishment of six nuclear power plants in India.

- Observing the strong ties of family, education, and business, and the spirit of entrepreneurship and innovation that unite their people, the Ministers highlighted the unmatched people-to-people ties between their countries and recognized the benefits to both nations and the world from these ties, including the free flow of ideas and collaboration in health, space, oceans, and other areas of science and technology.

- The next 2+2 meeting is to be held in the United States in 2019.

### 2.10 India-Myanmar-Thailand Trilateral Highway

**Context:**

- The 1360 kms long India-Myanmar-Thailand Trilateral Highway is an initiative pertaining to India, Myanmar and Thailand. India is undertaking construction of two sections of the Trilateral Highway in Myanmar namely,
  1. Construction of 120.74 KM Kalewa-Yagyi road section
  2. Construction of 69 bridges along with the approach road on the 149.70 KM Tamu-Kyigone-Kalewa (TKK) road section.

- Both these sections were awarded on Engineering, Procurement and Construction mode in May 2018 for Kalewa-Yagyi section and November 2017 for the TKK section. The scheduled time for completion of both the projects is three years from the date of commencement at the project site by the executing agency.

- The above mentioned projects are funded by **Government of India under Grant Assistance to the Government of Myanmar**.

**Other Information:**

- A **Motor Vehicles Agreement** along with protocols for regulating and facilitating movement of
cargo and passenger vehicular traffic is under inter-governmental negotiations between India, Myanmar and Thailand.

Background:
- The **India-Myanmar-Thailand Trilateral Highway** is a highway under construction under India’s **Look East Policy** that will connect Moreh, India with Mae Sot, Thailand via Myanmar.
- The road will boost the trade and commerce in the **ASEAN-India Free Trade Area**, and with the rest of Southeast Asia. India has also proposed extending the highway to Cambodia, Laos and Vietnam.

### 2.11 Indus Waters Treaty project

**Context:**
- Pak delegation has arrived in Delhi for Chenab under **Indus Waters Treaty project** inspection.

**Need:**
- This tour is an obligation imposed on both the countries by the Indus Waters Treaty 1960 between India and Pakistan. Under the treaty, both the commissioners are mandated to inspect sites and works on both the sides of Indus basin in a block of five years.
- Since signing of the treaty, a total of 118 such tours on both the sides have been undertaken by the commission.

**Indus Water treaty:**
- Signed in 1960 by then Prime Minister Jawaharlal Nehru and then Pakistan President Ayub Khan, the treaty allocates 80% of water from the six-river Indus water system to Pakistan.
- Under the treaty, control over six north Indian rivers were divided between the two countries. **India got control over the rivers Beas, Ravi and Sutlej** whereas **Pakistan got control over Indus, Chenab and Jhelum**.
- This is a unique treaty involving a third party. It was brokered by the **World Bank**.
- A **Permanent Indus Commission** was set up as a bilateral commission to implement and manage the Treaty. The Commission solves disputes arising over water sharing. **The Treaty also provides arbitration mechanism** to solve disputes amicably.

### 2.12 Raisina Dialogue

**Context:**
- The **fourth edition of the Raisina Dialogue**, India’s flagship annual conference on geopolitics and geo-economics, titled ‘**World Reorder**’, was recently held in New Delhi.

“**Fair Value for Innovation**”:
- The United States Chamber of Commerce’s Global Innovation Policy Center (GIPC) launched a **new innovation initiative** at the Raisina Dialogue in New Delhi.
- The initiative, titled “**Fair Value for Innovation**”, would enable breakthrough innovation, and explore how policymakers can harness innovation capital in India and around the globe through research, advocacy, partnerships, and programs.

**Raisina Dialogue:**
- This is an annual geo-political event, organised by the Ministry of External Affairs and Observer Research Foundation (ORF).
- It is designed to explore prospects and opportunities for Asian integration as well as Asia’s integration with the larger world. It is predicated on India’s vital role in the Indian Ocean Region and how India along with its partners can build a stable regional and world order.
- **Participants:** The conference is a multi-stakeholder, cross-sectoral meeting involving policy and
decision-makers, including but not limited to Foreign, Defence and Finance Ministers of different countries, high-level government officials and policy practitioners, leading personalities from business and industry, and members of the strategic community, media and academia.

- **Significance of the event:** The Raisina Dialogue was born in 2016, in the belief that the Asian century that the world was talking about was not about any exclusive geographical region. It was rather about the engagement of global actors with Asia and of Asia with the world. So this dialogue took birth as a platform, where the old and the new could work together, to discover their connections, their inter-dependence.

### 2.13 Sino-Indian Digital Collaboration Plaza (SIDCOP)

**Context:**
- The Sino-Indian Digital Collaboration Plaza (SIDCOP) has been launched by the National Association of Software and Services Companies (NASSCOM) in association with Municipal Governments of Guiyang and Dalian.

**SIDCOP:**
- The initiative aims to bring Indian IT companies and Chinese enterprises closer to each other on a single AI enabled platform. This platform will be managed by a joint venture comprising of one Indian and Chinese company.
- The initiative aims to encash the expertise of Indian IT enterprises in business transformation and operational optimization by using IT tools in complex business environments.
- It offers a boundary-less marketplace for Chinese enterprises in order to assist them in operational optimization and adopting industry best practices in business solutions by connecting with Indian enterprises.

**National Association of Software and Services Companies (NASSCOM):**
- NASSCOM is a not-for-profit industry association and is the apex body for the Indian IT-BPM industry.
- The membership of the NASSCOM is open for companies registered in India and are focused on providing IT-BPM products and services.
- NASSCOM aims to make sure that service quality and enforcement of Intellectual Property Rights have been properly implemented in the Indian software and BPM industry.
3.1 “The Future of Rail” Report

Context:
- “The Future of Rail” Report has been released by the International Energy Agency (IEA).
- It examines how the role of rail in global transport might be elevated as a means to reduce the energy use and environmental impacts associated with transport.

Key findings from The Future of Rail:
- Rail is among the most energy efficient modes of transport for freight and passengers – while the rail sector carries 8% of the world’s passengers and 7% of global freight transport, it represents only 2% of total transport energy demand.
- Today, three-quarters of passenger rail transport activity takes place on electric trains, which is an increase from 60% in 2000 – the rail sector is the only mode of transport that is widely electrified today. This reliance on electricity means that the rail sector is the most energy diverse mode of transport.
- The regions with the highest share of electric train activity are Europe, Japan and Russia, while North and South America still rely heavily on diesel.
- Passenger rail is significantly more electrified than freight in almost all regions, and regions with higher reliance on urban rail and high-speed rail are those with the largest share of passenger-kilometres served by electricity.
- Most conventional rail networks today are located in North America, Europe, China, Russia, India, and Japan. These regions make up about 90% of global passenger movements on conventional rail with India leading at 39%, followed by China at 27%.
- In contrast, significant investments have been made in high-speed rail and metros. High-speed rail provides an important alternative to aviation, while urban rail provides a solution to cities impacted by congestion and air pollution. Growth has been most notable in China, which has overtaken all other countries in terms of network length of both types within a single decade.

Focus on India:
- India’s railway system has played a fundamental role in the country’s development, transporting people and goods throughout its vast territory, integrating markets and connecting communities.
- Rail passenger traffic in India has increased by almost 200% since 2000 and freight traffic by 150%, yet latent demand for mobility in India remains huge. In fact, rail activity in India is set to grow more than any other country.
- Today, the conventional rail system in India comprises a total route length of almost 68000 km. Metro systems exist in 10 Indian cities. A further 600 km of metro lines are planned for the next few years.
- For now, India does not have any high-speed rail. However, in 2015 India and Japan signed an agreement to develop a high-speed rail line connecting the cities of Ahmedabad and Mumbai, to come into operation in 2023.
- Seven other high-speed lines are currently under consideration. Once completed, they would connect the four cities that constitute the Golden Quadrilateral (Delhi, Mumbai, Kolkata and Chennai) plus other intermediate cities.

3.2 Aber- the new digital currency

- The central banks of the United Arab Emirates (UAE) and Saudi Arabia have launched a common digital currency called ‘Aber’, which will be used in financial settlements between the two countries through Blockchains and Distributed Ledgers technologies.
- The use of the currency will be restricted to a limited number of banks in each state. In case that...
no technical obstacles are encountered, economic and legal requirements for future uses will be considered.

### 3.3 Africa Centre for Climate and Sustainable Development

#### Context:
- The Africa Centre for Climate and Sustainable Development was inaugurated by the Italian Prime Minister Giuseppe Conte at Rome.
- The centre has been opened by the Italian government in association with the United Nations Development Programme (UNDP) and the Food and Agricultural Organisation (FAO).

#### About the Centre:
- The centre would facilitate coordination among the G7 and African countries on common initiatives in Africato achieve the goals set by the Paris Agreement and the 2030 Agenda.
- The Centre would contribute towards addressing the needs of Africa by providing a platform for G7 countries to steer their cooperation to contrast environmental degradation and promote sustainable economic growth in the region.
- The centre will provide a fast-track, demand-driven mechanism for African countries to access grant resources that support policies, initiatives, and best practices on climate change, food security, access to water, clean energy, and accelerating progress on the Sustainable Development Goals (SDGs) in Africa.
- The centre would be hosted by UNDP which would utilise its extensive country office network and programmatic hubs, and global expertise and knowledge, to enable the African countries to access the resources available through it.

### 3.4 Arrow 3 interceptor system

#### What is it?
- Arrow 3 interceptor system was recently successfully tested.

#### Features:
- Arrow 3 is intended to serve as Israel’s highest-altitude missile interception system.
- It is jointly funded, developed and produced by Israel and the United States.
- The system is designed to shoot down missiles above the atmosphere.
- Israel’s Arrow system, partly financed by the United States, was developed and produced by Israeli Aerospace Industries in partnership with Boeing.
- Arrow 3 may serve as an anti-satellite weapon, which would make Israel one of the world’s few countries capable of shooting down satellites.

### 3.5 Astana Declaration

- In October 2018, the World Health Organization (WHO) organized Global Conference on Primary Health Care: From Alma-Ata towards universal health coverage and the Sustainable Development Goals, meeting at Astana, Kazakhstan.
- The Astana Declaration was signed which aims to meet all people’s health needs across the life course through comprehensive preventive, promotive, curative, rehabilitative services and palliative care.
- The declaration is signed by all 194 WHO member states including India.
- At the conference, countries declared their commitment to ‘Primary Care’ and re-affirmed their commitment to Alma Ata Declaration on Primary Health care signed in 1978.
- The Astana Declaration marks the 40th anniversary of the historical Alma Alta Declaration that declared health a human right for all and not just a privileged few and urged
the world to make primary health care the mainstay of universal health coverage in 1978.

- India was a signatory to the Alma Ata Declaration in 1978 that assured ‘health for all’ by the year 2000.

3.6 Beirut Declaration - Arab Economic and Social Development Summit

Context:
- Arab leaders and officials have urged the international community to support nations hosting Syrian refugees and take steps to minimise the impact of the refugee crisis. The call was made in the Beirut Declaration at the Arab Economic and Social Development Summit that concluded in the Lebanese capital recently.

Significance of the declaration:
- This is the first time Arab countries have reached a consensus on encouraging Syrian refugees to return to their country.
- The declaration said, the refugee crisis in Arab countries is the worst humanitarian problem since World War II. It points out that the crisis leads to an economic slowdown, increases the expenditure and deficit, imposes burdens on public sectors and infrastructure and poses risks to the society.

Arab Economic and Social Development summits:
- They are summits of the Arab League, held at the head of state level to address issues of economic and social development among member-states.

What is Arab League?
- The Arab League is a regional organization of Arab countries in and around North Africa, the Horn of Africa and Arabia.
- It was formed in Cairo on 22 March 1945 with six members: Kingdom of Egypt, Kingdom of Iraq, Jordan, Lebanon, Saudi Arabia, and Syria. Currently, the League has 22 members, but Syria’s participation has been suspended since November 2014, as a consequence of government repression during the Syrian Civil War.
- The League’s main goal is to “draw closer the relations between member States and co-ordinate collaboration between them, to safeguard their independence and sovereignty, and to consider in a general way the affairs and interests of the Arab countries“.

3.7 Corruption Perception Index 2018

Context:
- Corruption Perception Index 2018 has been released.
- The index ranks 180 countries and territories by their perceived levels of public sector corruption according to experts and businesspeople.
- It uses a scale of 0 to 100, where 0 is highly corrupt and 100 is very clean.

What is Corruption Perceptions Index (CPI)?
- It is a composite index that draws from 12 surveys to rank nations around the globe. It has become a benchmark gauge of perceptions of corruption and is used by analysts and investors.
- The index is also based on expert opinions of public sector corruption and takes note of range of factors like whether governmental leaders are held to account or go unpunished for corruption, the perceived prevalence of bribery, and whether public institutions respond to citizens’ needs.

The Transparency International’s Corruption Perception Index make the following observations:
- Denmark is the world least corrupt country scoring 88 out of 100 points. Denmark is followed by New Zealand and Finland.
• Somalia has been ranked last with a score of 10 behind South Sudan and Syria.
• More than two-thirds of evaluated countries scored below 50 points, while the average score remained at last year’s level of only 43 points.
• For the first time the United States dropped out of the top 20 and it was ranked at 22nd rank.
• Along with Brazil, US was placed in the watch list by Transparency International.

Corruption and the crisis of democracy:
• Cross analysis with global democracy data reveals a link between corruption and the health of democracies.
• Full democracies score an average of 75 on the CPI; flawed democracies score an average of 49; hybrid regimes – which show elements of autocratic tendencies – score 35; autocratic regimes perform worst, with an average score of just 30 on the CPI.
• More generally, countries with high levels of corruption can be dangerous places for political opponents. Practically all of the countries where political killings are ordered or condoned by the government are rated as highly corrupt on the CPI.

Performance of India:
• India’s ranking increased from 81st in 2017 to 78 in 2018. India had slid from 79th rank in 2016.
• Since India gears up for general elections, there was a little significant movement in its CPI score, which moved from 40 in 2017 to 41 in 2018.
• In spite of spectacular public mobilisation in 2011, where citizens demanded the government to take action against corruption and advocated for the passage of the comprehensive Jan Lokpal bill, the efforts ultimately fizzled and fell flat, with little to no movement on the ground to build the specialist anti-corruption infrastructure required.

To make real progress against corruption and strengthen democracy around the world, Transparency International calls on all governments to:
• Strengthen the institutions responsible for maintaining checks and balances over political power, and ensure their ability to operate without intimidation.
• Close the implementation gap between anti-corruption legislation, practice and enforcement.
• Support civil society organisations which enhance political engagement and public oversight over government spending, particularly at the local level.
• Support a free and independent media, and ensure the safety of journalists and their ability to work without intimidation or harassment.

3.8 Edelman Trust Barometer report

Context:
• The 2019 Edelman Trust Barometer report has been released by the Edelman Intelligence.
• The Edelman Trust Barometer report is an international study based on the opinions of elites that focuses on the principles of trust in business, government, media and NGOs. Based on the findings the report calculates the Global Trust Index.

The key findings from the report are:
• The Global Trust Index witnessed a marginal increase of 3 points to 52.
• The index has been topped by China in both the informed public and the general population segments, with scores of 79 and 88 respectively.

Trust in companies:
• Companies headquartered in Switzerland, Germany and Canada were the most trusted ones.
• Companies headquartered in India, Mexico and Brazil are the least trusted, followed by China and South Korea.

India's performance:
- India is among the most trusted nations globally when it comes to government, business, NGOs and media but the country’s brands are among the least-trusted.
- India stood at the second place in the informed public category and third place in the general population category.

### 3.9 First human rights TV channel launched

**Context:**
- The world’s first television channel dedicated to human rights has been launched in London by the International Observatory of Human Rights (IOHR).
- It would be a web-based channel and would deliver human rights issues to audiences in over 20 countries across Europe, Latin America and the Middle East.
- The Human Rights Channel aims to deliver hidden stories ignored by mainstream media into people’s living.

### 3.10 G77

**Context:**
- **Palestine** has taken over the chairmanship of G77 from Egypt.

**How is chairmanship of G77 decided?**
- The chairmanship of the G77 is based on the system of geographical rotation. 2019 was Asia’s turn and the Asian group had unanimously endorsed Palestine. Egypt was representing the African Group of countries.

**G77:**
- The Group of 77 (G77) at the United Nations is a coalition of 134 developing nations, designed to promote its members’ collective economic interests and create an enhanced joint negotiating capacity in the United Nations.
- G77 was formed on 15 June 1964 by the “Joint Declaration of the Seventy-Seven Countries” issued at the United Nations Conference on Trade and Development (UNCTAD).
- Since China participates in the G77 but does not consider itself to be a member, all official statements are issued in the name of The Group of 77 and China.

### 3.11 Global Commission on the Future of Work

**Context:**
- The Global Commission on the Future of Work released its report on Jan 22. The document calls on governments to take steps to address the challenges caused by unprecedented transformations going on in the world of work.

**Concerns and challenges highlighted by the report:**
- Due to the unprecedented transformational change in the world of work, there are several transformational challenges that are bound to occur.
- Artificial intelligence, automation and robotics will lead to job losses, as skills become obsolete.

**Among the 10 recommendations are:**
- A universal labour guarantee that protects fundamental workers’ rights, an adequate living wage, limits on hours of work and safe and healthy workplaces.
- Guaranteed social protection from birth to old age that supports people’s needs over the life cycle.
- A universal entitlement to lifelong learning that enables people to skill, reskill and upskill.
- Managing technological change to boost decent work, including an international governance system for digital labour platforms.
- Greater investments in the care, green and rural economies.
- A transformative and measurable agenda for gender equality.
- Reshaping business incentives to encourage long-term investments.

Need of the hour:
- It is time for a vision for a human-centred agenda that is based on investing in people’s capabilities, institutions of work and in decent and sustainable work.
- Countless opportunities lie ahead to improve the quality of working lives, expand choice, close the gender gap, reverse the damages wreaked by global inequality. Yet none of this will happen by itself.
- Governments, trade unions and employers need to work together, to make economies and labour markets more inclusive. Such a social dialogue can help make globalization work for everyone.

Global Commission on Future of Work:
- The formation of a ILO Global Commission on the Future of Work marks the second stage in the ILO Future of Work Initiative.
- Its job is to undertake an in-depth examination of the future of work that can provide the analytical basis for the delivery of social justice in the 21st century.
- Its job also includes identifying the key challenges facing the world of work and making practical recommendations about how these may be addressed in the future.

### 3.12 Global Risks Report 2019

**Context:**
- The Global Risks Report 2019 has been released by the World Economic Forum (WEF).

**Global Risks Report and its significance:**
- Based on the work of the Global Risk Network, the report describes changes occurring in the global risks landscape from year to year and identifies global catastrophic risks.
- The report explores the interconnectedness of risks, and is intended to raise awareness about the need for a multi-stakeholder approach to the mitigation of global risk.

**Top 10 risks by likelihood as per the latest report:**
- Extreme weather events.
- Failure of climate change mitigation and adaption.
- Major natural disasters.
- Massive incident of data fraud/theft.
- Large scale cyberattacks.
- Man-made environmental damage and disasters.
- Large-scale involuntary migration.
- Major biodiversity loss and ecosystem collapse.
- Water crises.
- Asset bubbles in a major economy.

**Analysis of the report and key takeaways:**
- Environmental risks dominate the global risks landscape in terms of impact and likelihood for the third year in a row. This includes extreme weather events and failure of climate mitigation and adaptation. Only 12 years left to stay beneath 1.5°C. However, there is a lack of political will to set more stretching targets to cut emissions. The report finds that business leaders are more concerned about climate in the long term. This disconnect will need to be tackled.
- Global risks are intensifying, but our capacity to respond to them is declining. Power is moving towards more nationalist, authoritarian states and they are becoming more inwards-looking. With
greater geopolitical friction, our ability to cooperate to solve challenges such as cyber risks and climate change has become more challenging.

- Geopolitics and geo-economic factors, such as uncertainty and nationalism are fuelling risks. Innovation is also outpacing our ability to manage it and there are growing concerns around technology misuse.
- Shorter-term fears are around geopolitical and cyber threats. For top business leaders, cyber risk concern is rising globally and is the highest ranked threat. Other concerns also exist including fiscal crises, unemployment, energy price shocks, national governance failure, interstate conflict and natural disasters.
- There is a significant financing gap (US$18 trillion) in infrastructure capital – with only US$79 trillion currently planned between now and 2040. This means 20% more financing is needed than we are putting in today. Furthermore, infrastructure needs to be resilient to extreme weather events. Business, with its reliance on public sector infrastructure, will be impacted and need to work with government on solutions.

3.13 Greek parliament approves Macedonia's new name

- Parliament of the Republic of Macedonia has voted to change their country’s name to the “Republic of North Macedonia”.
- Macedonia agreed to change its name after signing the Prespa Agreement with Greece in June 2018.
- Prespa is a fresh-water lake in southeast Europe shared by Albania, Greece, and Macedonia.
- With this agreement, a long-standing dispute between the two countries came to an end.
- The dispute was that the region of Greece bordering the Republic of Macedonia is also called Macedonia.
- Neighboring country Greece has objected to its name and said that it implied the Macedonian republic's territorial aspirations over the northern region of Greece.
- The change of name will now allow the Republic of Macedonia to enter the North Atlantic Treaty Organization (NATO) and the European Union (EU) as its accession to both organizations was vetoed by Greece.
3.14 Intermediate-Range Nuclear Forces (INF) Treaty

Context:
- The Russian military has released the specifications of its new missile- SSC-8 ground-fired cruise missile (also known as the Novator 9M729), seeking to dispel the U.S. claim that the weapons violates the 1987 Intermediate-Range Nuclear Forces (INF) Treaty.

What's the issue?
- US in early December announced that it would suspend its obligations under the INF treaty by Feb. 2, citing Russian “cheating,” unless Moscow comes into compliance with the terms of the pact. The U.S. government says the new Russian missile violates provisions of the pact that ban production, testing and deployment of land-based cruise and ballistic missiles with a range of 310 to 3,400 miles.

What would happen in the absence of treaty?
- It is unclear what INF-prohibited systems the United States could deploy to Europe or Asia in the near term. The U.S. military has not developed any land-based missiles within the prohibited ranges for decades and has only just started funding a new ground-launched cruise missile to match the 9M729.
- Moscow is in a very different position and could rapidly expand deployment. The number of operational 9M729 missiles has been quite limited, but released from its official obligations under the treaty, Moscow could deploy more units rapidly.
- Russia could also effectively reclassify the RS-26 Rubezh, an experimental system that has been tested just above the INF Treaty’s 5,500-kilometer limit. To avoid violating the INF, Russian officials previously described the RS-26 as an intercontinental ballistic missile. However, it could form the basis for a missile of a slightly shorter range if Moscow wished to boost its INF forces — without counting it under the U.S.-Russian New Strategic Arms Reduction Treaty, or New START, governing longer-range systems.
- This move is also likely to undermine the 2010 New START treaty governing U.S. and Russian long-range nuclear systems. The INF Treaty’s demise will undercut New START by reopening questions on the relationship between intermediate and strategic systems that have been resolved for 30 years by the elimination of ground-based, intermediate-range missiles.

Intermediate-Range Nuclear Forces Treaty:
- Under the INF Treaty, the U.S. and the U.S.S.R. agreed to eliminate within three years all ground-launched-missiles of 500-5,500 km range and not to develop, produce or deploy these in future.
- The U.S. destroyed 846 Pershing IIs and Ground Launched Cruise Missiles (GLCMs) and the U.S.S.R., 1,846 missiles (SS-4s, SS-5s and SS-20s), along with its support facilities.

Importance of the Intermediate Nuclear Forces (INF) Treaty in U.S.-Russia relations:
- Under the Treaty, the two parties agreed that a whole important class of nuclear weapons would be removed from Europe, and only tactical nuclear weapons (TNW) or short-range missiles mostly deployed on the territory of Germany would remain.
- The INF Treaty for years served to mitigate fears of both parties in relation to possibility of military escalation, operational miscalculation, and helping to shift the logic of MAD [mutually assured destruction] to the higher “more sensitive” political level.
3.15 Mother of all Bombs

Context:
- China has developed a massive bomb, said to be the country’s answer to the US-built ‘Mother of All Bombs’, the most powerful non-nuclear weapon.
- It is dubbed as the Chinese version of the “Mother of All Bombs” due to its huge destruction potential that is claimed to be only second to nuclear weapons.

Background:
- Last year, while waging war against militants in Afghanistan, the US military dropped a GBU-43/B Massive Ordnance Air Blast (MOAB) weapon, more commonly known as the “Mother of All Bombs,” on the Islamic State.
- Although China is using the same nickname for its bomb, said to weigh several tonnes, the Chinese weapon is smaller and lighter than its American counterpart.

Mother of all Bombs:
- The Moab or GBU-43/B is the world’s largest non-nuclear weapon.
- It is designed to destroy heavily reinforced targets or to shatter ground forces and armour across a large area.
- Its blast is equivalent to 11 tons of TNT. By comparison, the nuclear weapon dropped on Hiroshima had a blast yield of 15 tons of TNT.
- While it has a blast radius that stretches a mile in each direction the bomb leaves no lasting radiation effect because it is non-nuclear.

Father of all Bombs:
- To match the U.S. weapon, Russia developed the “Father of All Bombs” which is both bigger and thermobaric, meaning it uses gas to create a huge fireball rather than a shockwave.

3.16 Olof Palme Prize

Context:
- Pentagon Papers whistleblower Daniel Ellsberg, a former US military analyst who exposed Washington’s secret war plans for Vietnam in 1971, has won the 2018 Olof Palme human rights prize.

About the Prize:
- The Olof Palme Prize is an annual prize worth $75,000 (65,500 euros) awarded by the Swedish labour movement. It commemorates the memory of Sweden’s Social Democratic prime minister Olof Palme, an outspoken international human rights advocate — and vehement opponent of US involvement in the Vietnam War — who was assassinated in Stockholm in 1986.

3.17 Panda Bonds Pakistan

Context:
- For the first time in history, the federal cabinet has approved a new financial strategy called Panda-Bonds in Pakistan. These bonds will become the new and favorable method to raise foreign exchange.

What Are Panda Bonds?
- A Panda bond is a Chinese renminbi-denominated bond from a non-Chinese issuer, sold in the People’s Republic of China. These bonds were first issued in 2005 by the International Finance Corporation and the Asian Development Bank.
- The Chinese government had been negotiating for several years about implementation details before permitting the sale of such bonds; they had been concerned about the possible effects on their currency peg.
### How Will Panda Bonds Benefit Pakistan?

- The bonds will help Pakistan’s government to diversify the current investor base in capital market insurance and will also be used as a source of raising Renminbi. Furthermore, the tenor, size and pricing will be determined according to the market response at the time of issuance.

### 3.18 Panj Tirath

**Context:**

- The provincial Khyber Pakhtunkhwa government in northwest Pakistan has declared the ancient Hindu religious site of **Panj Tirath in Peshawar as national heritage**.
- The government also announced a fine of up to Rs 2 million and five years’ imprisonment for anyone found guilty of damaging the historic site.

**Panj Tirath:**

- Panj Tirath, which got its **name from the five pools of water present there**, also contains a temple and a lawn with date palm trees.
- It is believed that Pandu, a mythical king in the Mahabharata, belonged to this area and Hindus used to come to these pools for bathing during the month of Karteek and worship for two days under the trees.
- The site was damaged during the reign of the Afghan Durrani dynasty in 1747, however it was restored by local Hindus during the period of Sikh rule in 1834 and worship started again.

### 3.19 Persian Gulf Regional Dialogue Forum

**Context:**

- In a diplomatic initiative to address the lingering conflicts and mistrust in the Gulf region, Iran has proposed a new platform for regional peace building.

**Proposed Persian Gulf Regional Dialogue Forum:**

- The announcement of Persian Gulf Regional Dialogue Forum is significant as it comes in the wake of continued erosion of the **Gulf Cooperation Council**, which in the recent years has been divided between the Iranian and the Saudi spheres.
- **The new forum could focus on** promotion of peace and prosperity in the region. Such a forum should offer membership to countries based on a set of general principles to address real issues that affect people of the region and the world.
- **Admission to such a forum** should be based on accepting generally-recognised principles and shared objectives, notably respect for sovereignty, territorial integrity and the political independence of all states. The forum should render international boundaries inviolable and use of force impermissible.
- **Agenda of the forum:** It could connect people of various member countries cutting across all traditional boundaries.
- **Effectiveness:** Such a forum shall be helpful in dealing with threats like terrorism and extremism that has left the countries of the region in a state of continuous state of insecurity.
- **The member countries will have to** follow a set of confidence building measures. These measures could include freedom of navigation, assurance of free flow of energy and other resources and protection of the fragile marine ecology of the Gulf.

**GCC:**

- Gulf Cooperation Council (GCC) is a **political and economic alliance of six Middle Eastern countries**—Saudi Arabia, Kuwait, the United Arab Emirates, Qatar, Bahrain, and Oman.
- The GCC was established in Riyadh, Saudi Arabia, in May 1981. The purpose of the GCC is to achieve unity among its members based on their common objectives and their similar political
and cultural identities, which are rooted in Arab and Islamic cultures. Presidency of the council rotates annually.

- All current member states are monarchies, including three constitutional monarchies (Qatar, Kuwait, and Bahrain), two absolute monarchies (Saudi Arabia and Oman), and one federal monarchy (the United Arab Emirates, which is composed of seven member states, each of which is an absolute monarchy with its own emir).

3.20 World Capital of Architecture

Context:

- The United Nations Educational, Scientific, and Cultural Organization (UNESCO) has announced that the Brazilian city of Rio de Janeiro will be the World Capital of Architecture for 2020.

- Rio will be the first city to receive the title under a program launched together by UNESCO and the International Union of Architects (UIA) in November last year. The city will host the World Congress of UIA, in July 2020, an event that occurs every three years.

- **Significance:** According to UNESCO, the World Capital of Architecture is intended to become an international forum for debates about pressing global challenges from the perspectives of culture, cultural heritage, urban planning and architecture.
4.1 70th Republic Day

Context:
- India celebrated 70th Republic Day.
- Theme: ‘life of Gandhi’ which is a tribute to the father of the nation Mahatma Gandhi on his 150th birth anniversary.
- Chief guest: President Cyril Ramaphosa, President of the Republic of South Africa. This is the second time a South African leader is Chief Guest at Republic Day — Nelson Mandela was the chief guest in 1995.
- Significance: Republic day in India is celebrated every year on 26th of January to honour the Constitution of India as it came into force on the same day in the year 1950.

Highlights of the republic day:
- The 70th Republic Day parade will have the highest number of women officers participating in the celebrations with Lt. Bhavana Kasturi leading a contingent of 144 male personnel. This is the first time in the history of Indian Army that a woman will lead the Army services corps.
- An all-women contingent of Assam Rifles, India’s oldest paramilitary force, will be participating for the first time. The contingent was opened for women in 2012.
- The weapons which will be showcased for the first time in a Republic day parade are M777 and K-9 Vajra ultra light howitzers along with the Medium-Range Surface-to-Air Missile (MRSAM) missile of the Defence Research and Development Organisation (DRDO).
- For the first time in the Republic Day parade, An-32 aircraft will be flying using a mix of traditional and biofuel.
- Four former Indian National Army (INA) soldiers will participate for the first time in the parade. INA was an armed force formed by Indian nationalist Rash Behari Bose in 1942 in Southeast Asia during World War II.
- ‘Sankhnaad’, a martial tune created for the Indian armed forces, will be played for the first time on the 70th Republic Day parade. Since Independence, the Indian defence forces have been playing ‘martial tune’ created by the Britishers. ‘Sankhnaad’ is based on Indian classical music.

Why January 26th?
- The Constitution came into effect on January 26, 1950, a date specially chosen to coincide with the anniversary of ‘Purna Swaraj Diwas’. January 26, 1930 was marked as ‘Purna Swaraj Diwas’, or the day the nation would attain complete freedom from its colonisers by the Congress.
- The members of the drafting committee felt that the birth of the constitution should be observed on a day that held some significance in their fight for independence. When India was ultimately granted freedom by the British in 1947, but on August 15 and not January 26, the date was instead assigned to celebrating India’s Republic Day.
- This was the day the Indian Independence Act was consequently repealed and India was established as a democratic republic, no longer a dominion of the British Crown.

4.2 Aadhaar as travel documents to visit Nepal, Bhutan

Context:
- Aadhaar cards are now valid travel documents for Indians under 15 and over 65 travelling to Nepal and Bhutan. Indians other than those in the two age brackets will not be able to use Aadhaar to travel to the two neighbouring countries, for which no visas are needed.
- Indian citizens going to Nepal and Bhutan have to have a valid passport, identity card issued by
  the Indian government or the Election Commission, they do not need a visa. “Earlier, persons
  over 65 and under 15 could show their PAN card, driving licence, Central Government Health
  Service (CGHS) card or ration card, but not the Aadhaar, to prove their identity and visit the two
  countries. The Aadhaar card has now been added to the list”

4.3 Aadi Mahotsav
- **Organized by** Ministry of Tribal affairs and TRIFED.
- **The Mahotsav will comprise** of display and sale of items of tribal art and craft, tribal medicine
  & healers, tribal cuisine and display of tribal folk performance, in which tribal artisans, chefs, folk
  dancers/musicians from 23 States of the country shall participate and provide glimpse of their
  rich traditional culture.
- **The festival will feature** exhibition-cum-sale of tribal handicrafts, art, paintings, fabric, jewellery
  and much more.
- **Significance of the event**: As the name of this event Aadi Mahotsav suggests, it is it’s ‘Adi’
  factor that is important about them. The Adivasi way of life is guided by primal truths, eternal
  values and a natural simplicity. The greatness of the tribes lies in this that they have managed to
  retain the primal skills and natural simplicity. This quality gives their arts and crafts a timeless
  appeal. The crudest tribal handicraft instantly touches a primal instinct in all of us. This is
  particularly true in tribal music and dance.

4.4 Army Tech Seminar (ARTECH 2019)
- In its quest for modernization through optimum use of emerging technologies, Indian Army
  organized the Army Technology Seminar – 2019 (ARTECH 2019) on the theme “Disruptive
  Impact of Emerging Technologies on Land Warfare” at Manekshaw Centre, New Delhi.
- **Aim of the Seminar** – The aim is to bring together stakeholders in the military, academia
  and industry to provide perspective on the available and emerging technologies which
  could have an impact on warfighting.

4.5 Assam Accord
**Context:**
- The Union Home Ministry will set up a high-level committee to look into the
  implementation of Clause 6 of the Assam Accord. The composition and terms of reference of
  the committee, which will also look at issues related to the Bodo community, will be announced
  later.
**What does Clause 6 state?**
- **Clause 6 of the Assam Accord** “envisaged that appropriate constitutional, legislative and
  administrative safeguards shall be provided to protect, preserve and promote the cultural, social,
  linguistic identity and heritage of the Assamese people.”
**The Committee will:**
- Hold discussions with all stakeholders and assess the required quantum of reservation of seats in
  the Assam Assembly and local bodies for Assamese people.
- Look at measures to protect Assamese and other indigenous languages of Assam, reservation in
  state government jobs, and other steps to protect, preserve and promote cultural, social, linguistic
  identity and heritage of Assamese people.
- Suggest constitutional, legislative and administrative safeguards and examine the effectiveness of
  actions since 1985 to implement the clause.
Look into issues of the Bodo people, especially the measures mentioned in the Memorandum of Settlement signed between the Government of India, Assam government and the Bodo Liberation Tigers Force in 2003.

Significance:
- The setting up of the committee will pave the way for the implementation of the Assam Accord in letter and spirit and will help fulfill longstanding expectations of Assamese people.
- The Union Cabinet’s announcement comes at a time when Centre is facing criticism in Assam over the Citizenship (Amendment) Bill, 2016, which proposes to make minority (non-Muslim) immigrants from three neighbouring countries — Bangladesh, Afghanistan and Pakistan — eligible for Indian citizenship.
- But as per the Assam Accord, any person who came to the state after the midnight of March 24, 1971, will be identified as a foreigner. So the proposed Bill is seen to violate the Assam Accord by differentiating between migrants on the basis of religion.

What is Assam Accord?
- The Assam Accord (1985) was a Memorandum of Settlement (MoS) signed between representatives of the Government of India and the leaders of the Assam Movement in New Delhi on 15 August 1985.
- The accord brought an end to the Assam Agitation and paved the way for the leaders of the agitation to form a political party and form a government in the state of Assam soon after.
- As per the Accord, those Bangladeshis who came between 1966 and 1971 will be barred from voting for ten years. The Accord also mentions that the international borders will be sealed and all persons who crossed over from Bangladesh after 1971 are to be deported.
- Though the accord brought an end to the agitation, some of the key clauses are yet to be implemented, which has kept some of the issues festering.

4.6 Atal Solar Krishi Pump Yojana

Context:
- To reduce losses due to non-payment of electricity bills and also promote solar energy, Maharashtra state government has launched Atal Solar Krishi Pump Yojana.

Atal Solar Krishi Pump Yojana:
- Under the scheme, the government of Maharashtra has decided to give two LED bulbs, a DC fan and a mobile charging socket as freebies to farmers.
- The scheme provides a subsidy of up to 95% on solar pumpsets. The State plans to install one lakh solar pumps.
- Eligibility: Under the Scheme, farmers with less than five acres will have to pay 5% of the cost of a 3 HP solar pump while farmers with more than five acres will get a 5 HP solar pump for Rs 30000.
- The Maharashtra State Electricity Distribution Co Ltd (Msedcl) is the implementing agency.
- The scheme would be beneficial to farmers who reside in remote areas where the agricultural feeder is not possible.

4.7 Autonomous District Council

Context:
- The Union Cabinet has approved a constitutional amendment to increase the financial and executive powers of the 10 autonomous councils in the Sixth Schedule areas of the northeast.

What are Autonomous District Council?
- As per the Sixth Schedule, the four states viz. Assam, Meghalaya, Tripura and Mizoram contain
the Tribal Areas which are technically different from the Scheduled Areas.

- Though these areas fall within the executive authority of the state, provision has been made for the creation of the District Councils and regional councils for the exercise of the certain legislative and judicial powers.
- Each district is an autonomous district and Governor can modify / divide the boundaries of the said Tribal areas by notification.

**What do the new amendments seek to modify?**

- The amendment would impact a population of about 1 crore tribals living in Assam, Meghalaya, Tripura and Mizoram.
- The Finance Commission would be mandated to recommend devolution of financial resources to the councils. Till now, the autonomous councils have depended on grants from Central Ministries and the State governments for specific projects.
- As per the proposed amendment, at least one third of the seats would be reserved for women in the village and municipal councils in the Sixth Schedule areas of Assam, Mizoram and Tripura.
- The amendment also provides for transfer of additional 30 subjects, including the departments of Public Works, Forests, Public Health Engineering, Health and Family Welfare, Urban Development and Food and Civil Supply to Karbi Anglong Autonomous Territorial Council and Dima Hasao Autonomous Territorial Council in Assam.
- The proposed amendments provide for elected village municipal councils, ensuring democracy at the grass-roots level.
- The State Election Commissions would hold elections to the autonomous councils, village and municipal councils in the areas of Assam, Mizoram and Tripura.

**4.8 B V R Mohan Reddy Committee**

**Context:**

- A government committee headed by IIT-Hyderabad chairman B V R Mohan Reddy has submitted its report and that its suggestions are being considered by AICTE.
- The committee was appointed to come up with a medium and short-term perspective plan for expansion in engineering education.

**Important recommendations made by the committee:**

- **Stop setting up new colleges from 2020** and review the creation of new capacity every two years after that.
- **No additional seats should be approved in traditional engineering areas** such as mechanical, electrical, civil and electronics and institutes should be encouraged to convert current capacity in traditional disciplines to emerging new technologies.
- For approving additional seats in existing institutions, the AICTE should only **give approvals based on the capacity utilisation of concerned institute.**
- **Introduce undergraduate engineering programmes** exclusively for artificial intelligence, blockchain, robotics, quantum computing, data sciences, cybersecurity and 3D printing and design.

**What necessitated this?**

- **More than half the engineering seats fall vacant every year.** There were no takers for 51% of the 15.5 lakh B.E/B.Tech seats in 3,291 engineering colleges in 2016-17.
- Besides, **current capacity utilisation in traditional disciplines is just 40%** as opposed to 60% seat occupancy in branches such as computer science and engineering, aerospace engineering and mechatronics.
- There were glaring gaps in regulation, including alleged corruption; a vicious circle of poor...
infrastructure, labs and faculty; non-existent linkages with industry; and the absence of a technical ecosystem to nurture the classroom. All this accounted for low employability of graduates.

**4.9 Chin refugees**

**Why in News?**
- Eight organisations of the Chakma community have submitted a memorandum to the Ministry of Home Affairs seeking the inclusion of Chin refugees in India by further amending the Citizenship (Amendment) Bill, 2016.

**Overview:**
- The Chins are one of the major ethnic groups in Myanmar, and are mostly Christians.
- The number of Chin refugees in India is at least 1.2 lakh. There are an estimated 100,000 Chins in Mizoram, which is 20% of the total Chin population in Myanmar. Manipur too has an unspecified number of Chins, who are ethnically related to the majority Mizos of Mizoram and the Kuki-Zomi groups in Manipur.

**4.10 Constitutional provision to reject the Citizenship (Amendment) Bill, 2016**

**Context:**
- The Nationalist Democratic Progressive Party (NDPP), a coalition partner of the BJP in Nagaland, has said the State had the constitutional provision to reject the Citizenship (Amendment) Bill, 2016.
- Nagaland, along with other north-eastern States, has witnessed several protests following the passage of the Bill in the Lok Sabha.

**Why the provisions of the Citizenship Bill may not be applicable to Nagaland?**
- Article 371(A) of the Constitution begins with the words “notwithstanding anything in this Constitution, no Act of Parliament in respect of...” This means that despite what is in the Constitution, no Act of Parliament shall apply to the State of Nagaland unless the Legislative Assembly of Nagaland by a resolution so decides.
- Nagaland is also protected by the Bengal Eastern Frontier Regulation of 1873, whereby an Inner Line Permit is issued to outsiders for safeguarding the citizenship, rights and privileges of the Nagas.

**Why Assam and other NE states are opposing this bill?**
- The bill seeks to facilitate granting of Indian citizenship for non-Muslim migrants from Bangladesh, Pakistan and Afghanistan.
- In Assam, illegal migrants are not identified along religious lines and people want such migrants to be deported.
- Mizoram fears Buddhist Chakmas from Bangladesh may take advantage of the Act. Meghalaya and Nagaland are apprehensive of migrants of Bengali stock.
- Groups in Arunachal Pradesh fear the new rules may benefit Chakmas and Tibetans. Manipur wants the Inner-line Permit System to stop outsiders from entering the state.

**4.11 Data Localization**

**Context:**
- Reliance Industries Ltd Chairman and Managing Director Mukesh Ambani has come out strongly in favour of storing data locally and not putting it “especially” in the hands of foreigners.

**What’s the issue?**
- Data localization is a sensitive issue world over and more so in India, given that this is a country of 1.3 billion people with over 1 billion mobile users. With technology developing...
rapidly, more and more devices becoming smarter and the Internet of Things taking over, a genuine concern around leakage of private data has gained ground.

What does Data Localization mean?
- Data localization is the **act of storing data on any device** that is physically present within the borders of a specific country where the data was generated.

Why data localization is necessary for India?
- For securing citizen’s data, data privacy, data sovereignty, national security, and economic development of the country.
- Recommendations by the RBI, the committee of experts led by Justice BN Srikrishna, the draft ecommerce policy and the draft report of the cloud policy panel show signs of data localisation.
- The extensive data collection by technology companies, has allowed them to process and monetize Indian users’ data outside the country. Therefore, to curtail the perils of unregulated and arbitrary use of personal data, data localization is necessary.
- Digital technologies like machine learning (ML), artificial intelligence (AI) and Internet of Things (IoT) can generate tremendous value out of various data. It can turn disastrous if not contained within certain boundaries.
- With the advent of cloud computing, Indian users’ data is outside the country’s boundaries, leading to a conflict of jurisdiction in case of any dispute.
- Data localization is an opportunity for Indian technology companies to evolve an outlook from services to products. International companies will also be looking at the Indian market, and this will benefit the growth of the local ecosystem.
- More data centres in India could mean new, power-hungry customers for India’s renewable energy market. That means Data localisation could boost India’s renewable energy.

Policies that imply data localization:
- **The Srikrishna Committee** wants to localise data for law enforcement to have easy access to data, to prevent foreign surveillance to build an artificial intelligence ecosystem in India, and because undersea cables through which data transfers take place are vulnerable to attacks.
- In April, the Reserve Bank of India imposed a hard data localisation mandate on payment systems providers to store payment systems data only in India.
- Barring limited exceptions, telecom service providers are not allowed to transfer user information and accounting information outside India.

Concerns / Challenges:
- Several of the recommendations in including the draft e-commerce policy, falter on a key ground like they gloss over the negative economic impact of data localization. This approach exhibits lack of evidence-based policy making.
- Having data in India does not mean that domestic companies will be able to access this data. Localization might aid the growth of the data centre and the cloud computing industry in India, but as matter of wider public policy, such an approach is extremely myopic.
- Mandating localization is less of a solution for data protection and might be less relevant to promote e-commerce.
- Given the comparative trade advantages enjoyed by one section of Indian industry in this context, mandating a strict data localization regime could be perceived as a restrictive trade barrier and spur retaliatory measures.
- There is a possible rise in prices of foreign cloud computing services in case of a data localisation, and its impact on MSMEs as well as start-ups relying on these services.
The possibility of triggering a vicious cycle of data localisation requirements by other countries as a response to India’s possible data localisation will be detrimental for the global data economy. Growth will be restricted if data cannot be aggregated internationally. Infrastructure in India for efficient data collection and management is lacking.

**Need of the hour:**
- There is an urgent need to have an integrated, long-term strategy for policy creation for data localisation.
- Data localisation needs to integrate a wide range of social, political and economic perspectives.
- Creating an opportunity for local data centres all over the country.
- Devising an optimal regulatory and legislative framework for data processors and data centres operating in the country.
- Adequate infrastructure in terms of energy, real estate, and internet connectivity also needs to be made available for India to become a global hub for data centres.
- Adequate attention needs to be given to the interests of India’s Information Technology Enabled Services (ITeS) and Business Process Outsourcing (BPO) industries, which are thriving on cross border data flow.

### 4.12 District Mineral Foundations (DMF)

**Context:**
- The Odisha government is planning to move its district mineral foundations (DMF) to its steel and mines department from the planning and convergence department. The plan to move the DMFs aims to improve implementation and use of funds.

**DMFs:**
- DMFs were instituted under the Mines and Minerals (Development and Regulation) (MMDR) Amendment Act 2015 as non-profit trusts to work for the interest and benefit of persons and areas affected by mining-related operations.
- The objective of District Mineral Foundation is to work for the interest of the benefit of the persons and areas affected mining related operations in such manner as may be prescribed by the State Government.
- Jurisdiction: Its manner of operation comes under the jurisdiction of the relevant State Government.
- The various state DMF rules and the Pradhan Mantri Khanij Kshetra Kalyan Yojana (PMKKKY) guidelines stipulate some “high priority” issues for DMFs, including:
  - Drinking water.
  - Health
  - Women and child welfare.
  - Education
  - Livelihood and skill development.
  - Welfare of aged and disabled.
  - Sanitation

**Pradhan Mantri Khanij Kshetra Kalyan Yojana (PMKKKY):**
- The programme is meant to provide for the welfare of areas and people affected by mining related operations, using the funds generated by District Mineral Foundations (DMFs).

**Objectives of the scheme:**
- To implement various developmental and welfare projects/programs in mining affected areas that complement the existing ongoing schemes/projects of State and Central Government.
- To minimize/mitigate the adverse impacts, during and after mining, on the environment, health
and socio-economics of people in mining districts.
  • To ensure long-term sustainable livelihoods for the affected people in mining areas.

4.13 electronic National Agricultural Market (e-NAM)

Context:
  • First-ever inter-State transaction on e-NAM has taken place between Uttarakhand and Uttar Pradesh.

The electronic National Agricultural Market (e-NAM):
  • The electronic National Agricultural Market (e-NAM) is a pan-India electronic trading portal which networks the existing APMC (Agricultural produce market committee) mandis to create a unified national market for agricultural commodities. It was launched in 2016.
  • e-NAM allows trading of commodities at mandis through mobile and web applications.
  • Small Farmers Agribusiness Consortium (SFAC) is the lead agency for implementing e-NAM under the aegis of Ministry of Agriculture and Farmers Welfare, Government of India.
  • e-NAM requires states to implement 3 changes:
    1. Provide for electronic trading,
    2. Single trading licences that are valid in all mandis in a state.
    3. A single-window levy of transaction fees.
  • The e-NAM Portal provides a single window service for all APMC related information and services. This includes commodity arrivals & prices, buy & sell trade offers, provision to respond to trade offers, among other services.

4.14 Ganga Expressway

Context:
  • The government of Uttar Pradesh has approved the construction of the Ganga Expressway.

Key facts:
  • The 600km long expressway would be the longest expressway in the world.
  • The expressway will provide for better connectivity of the Prayagraj (Allahabad) to Western Pradesh.

4.15 Global Aviation Summit 2019

Context:
  • Global Aviation Summit 2019 is being held in Mumbai, Maharashtra.
  • The theme of the Global Aviation Summit 2019 is ‘Flying for all—especially the next 6 Billion’.
  • The summit is being organised by the Union Ministry of Civil Aviation, Airport Authority of India (AAI) in association with the Federation of Indian Chambers of Commerce and Industry (FICCI).
  • The objective of the Summit is to provide a platform to the aviation industry to discuss the challenges faced in the newly developing growth spots and understand how technology-driven innovations will change air travel in the future.

4.16 India’s first National Museum of Indian Cinema (NMIC)

• India’s first National Museum of Indian Cinema (NMIC) - inaugurated in Mumbai.
• The National Museum of Indian Cinema will not only provide a storehouse of information to laymen but it will also help filmmakers, film students, enthusiasts and critics to know and evaluate the development of cinema as a medium of artistic expression, not only in the country but also in all parts of the world.
The museum is housed in a 19th-century heritage bungalow, Gulshan Mahal, along with another newly built state-of-the-art NMIC building.

The new museum building has four exhibition halls, whose themes are:

1. Gandhi and Cinema;
2. Technology, Creativity and Indian cinema;
3. Cinema across India;
4. Children’s Film Studio.

Raja Harishchandra made by Dadasaheb Phalke in 1913 was the first silent feature film in India and Ardeshir Irani’s Alam Ara in 1931 was the first feature film with sound.

4.17 India’s longest single-lane steel cable suspension bridge in Arunachal Pradesh

Context:

- India’s longest single-lane steel cable suspension bridge has been inaugurated over Siang River in Upper Siang district of Arunachal Pradesh.
- The bridge is 300-metre-long and is also known as byorung bridge. The bridge will reduce the distance between Yingkiong and Tuting in Arunachal Pradesh by almost 40 km.
- **Siang River**: The Tsangpo river, which originates in the Angsi Glacier in the Himalayas, enters India through Arunachal Pradesh where it is called by name Siang. The river is also called as Dihang in the plain regions. It is joined by the rivers Dibang and Lohit.

4.18 India’s second defence industrial corridor

Context:

- Tamil Nadu Defence Industrial Corridor has been inaugurated.

Key facts:

- The corridor is the second defence corridor being set up by the government to support various defence manufacturing units. **The first one is being established in Uttar Pradesh.**
- The corridor is also referred to as the Tamil Nadu Defence Production Quad as the nodal cities form a quadrilateral with one of them at the centre.
- The key aim behind setting up defence industrial corridors is to ensure connectivity among various defence industrial units. The development of the defence corridor will help facilitate a well-planned and efficient industrial base that will lead to an increased defence production in the country.

4.19 Indian Bridge Management System (IBMS)

Context:

- The Ministry of Road Transport and Highways has inventorized 1,72,517 bridges/structures under **Indian Bridge Management System (IBMS)**. These structures comprise 1,34,229 culverts, 32,806 minor bridges, 3,647 major and 1,835 extra-long bridges.

What is it?

- IBMS crates **an inventory of all bridges in the country and rate their structural condition** so that timely repair and rehabilitation work can be carried out based on the criticality of the structure.
- **IBMS is the largest platform in the world owned by a single owner**, with database that could exceed 1,50,000 bridge structures. So far 1,15,000 bridges have been inventorized, of which 85,000 are culverts and the rest are bridges.

Why was it necessary?

- Lack of any data base on bridges in the country has led to a situation where there is no clear idea...
about the exact number and location of bridges. Hence, it has become difficult to maintain bridges in proper working condition. Poor condition of bridges hampers efficient transport and has also led to accidents and loss of lives on several occasions.

How it operates?

- During inventory creation each bridge is assigned a unique identification number or National Identity Number based on the state, RTO zone and whether it is situated on a National Highway, State Highway or is a district road.
- Then the precise location of the bridge in terms of latitude-longitude is collected through GPS and based on this, the bridge is assigned a Bridge Location Number.
- Thereafter, engineering characteristics like the design, materials, type of bridge, its age, loading, traffic lane, length, width of carriage way etc are collected and are used to assign a Bridge Classification Number to the structure.
- These are then used to do a structural rating of the structure on a scale of 0 to 9, and each bridge is assigned a Structural Rating Number.
- In addition to the structural rating, the bridges are also being assigned Socio-Economic Bridge Rating Number which will decide the importance of the structure in relation to its contribution to daily socio-economic activity of the area in its vicinity.
- Based on this inventory IBMS will analyse data and identify bridges that need attention. Further inspection will be carried out wherever required to improve the operational availability of the structure, enhance its life and prioritize repair and rehabilitation work. The data will help to decide which bridge needs critical attention, or which needs to be rebuilt.

4.20 Indian Harvest Festivals

Context:
- The Harvest season is on and festivities have gripped the nation from the north to down south.

Various festivals being celebrated across the Nations:
- Makar Sankranti: The festival of Makar Sankranti is being celebrated today when the Sun enters the Makar zodiac and the days begin to lengthen compared to nights.
- Pongal: In South India and particularly in Tamil Nadu, it’s the festival of Pongal which is being celebrated over 4 days at harvest time.
- Magha Bihu: In Assam and many parts of the North East, the festival of Magha Bihu is celebrated. It sees the first harvest of the season being offered to the gods along with prayers for peace and prosperity.
- Uttarayan: Gujarat celebrates it in the form of the convivial kite festival of Uttarayan.
- Maghi: In Punjab, Makar Sankranti is celebrated as Maghi. Bathing in a river in the early hours on Maghi is important.
- Saaji: In Shimla District of Himachal Pradesh, Makara Sankranti is known as Magha Saaji. Saaji is the Pahari word for Sankranti, start of the new month. Hence this day marks the start of the month of Magha.
- Kicheri: The festival is known as Kicheri in Uttar Pradesh and involves ritual bathing.

Outside India:
- Shakrain is an annual celebration of winter in Bangladesh, observed with the flying of kites.
- Maghe Sankranti is a Nepalese festival observed on the first of Magh in the Bikram Samvat Hindu Solar Nepali calendar (about 14 January).

4.21 Indian Railways’ fastest Train 18 named Vande Bharat Express
- India’s first indigenously built engineless semi-high speed train, Train 18, has been named Vande
Bharat Express.

- The train is set to run between Delhi and Varanasi at a maximum speed of 160 kmph.
- Train 18 is a flagship train set; the first prototype has been built by the Integral Coach Factory, Chennai, in a record time of 20 months.
- The train is a 100% ‘Make in India’ project and is claimed to be built at half the cost of a similar train set that is imported.
- T-18 is a self-propelled engine-less train (similar to the Metro trains) and is energy-efficient as its coaches will be fitted with LED lights. Coaches will have automatic doors and retractable footsteps.
- It will be inter-connected with fully sealed gangways along with a GPS-based Passenger Information System. It is provided with of Bio toilets.

### 4.22 Institutes of Eminence

**Context:**

- The University Grants Commission has deferred a decision on which institutions should be granted the prestigious **Institutes of Eminence** tag as an expert committee has recommended more names than the government scheme allowed for.

**Background:**

- The empowered expert committee headed by former Chief Election Commissioner N. Gopalaswami had initially recommended 11 institutions for the tag in July 2018. In December, the committee recommended 19 more names, taking the total list to 30.

**Institutions of Eminence scheme:**

- The institutes of eminence scheme under the Union human resource development (HRD) ministry aims to project Indian institutes to global recognition.
- The selected institutes will enjoy complete academic and administrative autonomy.
- The government will run 10 of these and they will receive special funding.
- The selection shall be made through challenge method mode by the Empowered Expert Committee constituted for the purpose.
- **Eligibility:** Only higher education institutions currently placed in the top 500 of global rankings or top 50 of the National Institutional Ranking Framework (NIRF) are eligible to apply for the eminence tag.
- The private Institutions of Eminence can also come up as greenfield ventures provided the sponsoring organisation submits a convincing perspective plan for 15 years.

### 4.23 International forum for advancing global collaboration in Homoeopathy

**Context:**

- The World Integrated Medicine Forum on the regulation of Homoeopathic Medicinal Products is being held in India.
- **Theme:** ‘Advancing Global Collaboration’.
- **Organised by** Central Council for Research in Homeopathy (CCRH), with the support of Ministry of AYUSH and many others.
- **Significance:** The Forum will be serving as the only truly global platform in which the public and private sector can meet and exchange ideas on how to ensure and increase the availability of safe and effective homeopathic medicines worldwide, now for the second time. The first forum on similar lines was organised by CCRH in 2017.
4.24 Jan Shikshan Sansthans (JSS)

**Context:**
- The government has unveiled new guidelines for Jan Shikshan Sansthans (JSS) aligning them to the National Skills Qualification Framework with an aim to providing standardised training across sectors.

**New guidelines:**
- Alignment of JSS course and curriculum with National Skill Qualification Framework (NSQF) to standardize training.
- Decentralization of powers for JSSs by providing accountability and independence to district administration.
- To identify and promote traditional skills in the district through skilling / upskilling.
- Evidence-based assessment system.
- Easy Online certification.
- Linking JSS to Public Finance Management system to maintain transparency and accountability of the ecosystem.
- Creating livelihood linkages.
- Training of Trainers to develop the capacity through National Skills Training Institutes.

**Jan Shikshan Sansthans (JSS):**
- Formerly under the Ministry of Human Resources Development, Jan Shikshan Sansthan was transferred to the Ministry of Skill Development & Entrepreneurship in 2018.
- Jan Shikshan Sansthans (JSS) were established to provide vocational training to non-literate, neo-literate, as well as school dropouts by identifying skills as would have a market in the region of their establishment.

4.25 Kumbh Mela

**Context:**

**Kumbh Mela:**
- The Kumbh Mela (the festival of the sacred pitcher) is anchored in Hindu mythology.
- It is the largest public gathering and collective act of faith, anywhere in the world.
- Crowds gather at the sacred confluence of the Ganga, the Yamuna, and the mystical Sarasvati. Primarily, this congregation includes Ascetics, Saints, Sadhus, Sadhvis, Kalpvasis, and Pilgrims from all walks of life.
- The Mela was included in the list of “Intangible Cultural Heritage of Humanity” by UNESCO in 2017.

**Celebration:**
- Kumbh Mela is celebrated four times over a course of 12 years.
- The geographical location of Kumbh Mela spans over four locations in India and the Mela site keeps rotating between one of the four pilgrimage places on four sacred rivers as listed below:
  1. Haridwar on the Ganges in Uttarakhand.
  2. Ujjain on the Shipra in Madhya Pradesh.
  3. Nashik on the Godavari in Maharashtra.
  4. Prayagraj at the confluence of the Ganges, the Yamuna, and the mythical Sarasvati in Uttar Pradesh.
4.26 Kushi Scheme of Odisha

Context:
- The Centre’s recently introduced ‘Ujjwala Sanitary Napkins’ initiative is being seen as an attempt to counter the ‘Khushi’ scheme launched by the Odisha State government.

Khushi Scheme:
- As part of its initiatives to empower women, the Odisha government, last year, launched this scheme to provide free sanitary napkins to school girls across the state.
- The scheme will be implemented by the health and family welfare department of the state at a cost of 70 crore per year.
- Under this scheme, the Health Department of Odisha Government aims to provide free sanitary pads to 1.7 million girl students from grade 6th to 12th in government and government-aided schools.
- Also, it aims to promote health and hygiene among school going girls and higher retention of girls in school.

4.27 Lokpal Act of 2013

Context:
- The government recently informed the Supreme Court that an eight-member search committee has been constituted in September 2018 for zeroing in on eligible candidates for Lokpal and the anti-corruption authority will frame its own rules of functioning. The panel is led by former Supreme Court judge, Justice Ranjana Prakash Desai.

Background:
- A contempt petition has been filed in the court against the government for not appointing Lokpal despite an April 2017 judgment by the Supreme Court. The court has for the past several months been constantly urging the government to complete the Lokpal appointment.

Highlights of the Lokpal Act of 2013:
- The Act allows setting up of anti-corruption ombudsman called Lokpal at the Centre and Lokayukta at the State-level.
- The Lokpal will consist of a chairperson and a maximum of eight members.
- The Lokpal will cover all categories of public servants, including the Prime Minister. But the armed forces do not come under the ambit of Lokpal.
- The Act also incorporates provisions for attachment and confiscation of property acquired by corrupt means, even while the prosecution is pending.
- The States will have to institute Lokayukta within one year of the commencement of the Act. The Act also ensures that public servants who act as whistleblowers are protected.
Powers:

- The Lokpal will have **the power of superintendence and direction over any investigation agency** including CBI for cases referred to them by the ombudsman.

- As per the Act, **the Lokpal can summon or question any public servant** if there exists a prima facie case against the person, even before an investigation agency (such as vigilance or CBI) has begun the probe. Any officer of the CBI investigating a case referred to it by the Lokpal, shall not be transferred without the approval of the Lokpal.

- **An investigation must be completed within six months.** However, the Lokpal or Lokayukta may allow extensions of six months at a time, provided the reasons for the need of such extensions are given in writing.

- **Special courts will be instituted to conduct trials on cases referred by Lokpal.**

### 4.28 Monuments of national importance in 2018

**Context:**

- The **Archaeological Survey of India (ASI)** recently declared that it has added six structures to the list of **monuments of national importance**, taking the total number to 3,693.

- **With 506 monuments under its belt, Karnataka continues to top the list in South India,** followed by Tamil Nadu (413). Nationally too, **Karnataka is in the second place after Uttar Pradesh**, which has 745 such monuments.

The six monuments declared as Monuments of national importance in 2018 are:

- Old High Court Building in Nagpur, Maharashtra.
- Haveli of Agha Khan in Agra.
- Haveli of Hathi Khana in Agra.
- Neemrana Baori in Rajasthan’s Alwar district.
- Group of Temples at Ranipur Jharail in Odisha’s Bolangir district.
- Vishnu Temple in Kotali, Pithoragarh district, Uttarkhand.

**What is an Ancient Monument?**

- According to the **Ancient Monuments and Archaeological Sites and Remains Act, 1958**, any structure, sculpture, inscription, etc., which is in existence for not less than 100 years is termed
ancient. 

About ASI:
- The Archaeological Survey of India (ASI), under the Ministry of Culture, is the premier organization for the archaeological researches and protection of the cultural heritage of the nation.
- **Functions:** Maintenance of ancient monuments and archaeological sites and remains of national importance is the prime concern of the ASI. Besides it regulate all archaeological activities in the country as per the provisions of the Ancient Monuments and Archaeological Sites and Remains Act, 1958. It also regulates Antiquities and Art Treasure Act, 1972.
- **The Archaeological Survey of India (ASI) was formed in 1861 by a statute** passed into law by Canning, with Alexander Cunningham as its first Archaeological Surveyor, to excavate and conserve India’s ancient built heritage.

### 4.29 National Agricultural Higher Education Project (NAHEP)

**Context:**
- The ICAR has recently launched Rs 1100 crore ambitious National Agricultural Higher Education Project (NAHEP).

**Key highlights:**
- **Aim:** To attract talent and strengthen higher agricultural education in the country.
- **Funded by** the World Bank and the Indian Government on a 50:50 basis.
- **The objective of the NAHEP for India is to support participating agricultural universities and ICAR in providing more relevant and higher quality education to Agricultural University students. In addition, a four year degree in Agriculture, Horticulture, Fisheries and Forestry has been declared a professional degree.**

### 4.30 National Entrepreneurship Awards

**Context:**
- National Entrepreneurship Awards 2018, aimed at recognizing and honoring outstanding young first-generation entrepreneurs and those who have contributed immensely in building the entrepreneurship ecosystem.

**Third edition of National Entrepreneurship Awards:**
- A total of 43 awards were given, including 39 awards for Young Entrepreneurs in different sectors and 4 awards for Entrepreneurship Ecosystem Builders.

**National Entrepreneurship Award –**
- To catalyze a cultural shift in youth for entrepreneurship, the Ministry of Skill Development and Entrepreneurship (MSDE) has instituted the National Entrepreneurship Awards (NEA) to recognize and honour outstanding young first generation Entrepreneurs and their Ecosystem Builders for their outstanding contribution in entrepreneurship development.

### 4.31 National Youth Parliament Festival 2019

**Context:**
- National Youth Parliament Festival 2019 has begun, thereby beginning the celebration of the National Youth Day 2019.
- **Theme:** “Be The Voice of New India” and “Find solutions and contribute to policy”.
- **Eligibility:** Youth in the age bracket of 18-25 years are invited to participate in the District Youth Parliaments.
- **Significance:** The National Youth Parliament Festival will encourage the youth to engage with...
public issues, understand the common man’s point of view, form their opinion and express these in an articulate manner. Relevant and effective voices on the vision of New India would be captured and documented to make these available to policy makers and implementers to take it forward.

The National Youth Parliament Festival 2019 will be conducted at three levels:
- District Youth Parliament (DYP) at the district level.
- State Youth Parliament (SYP) at the State Level.
- National Youth Parliament (NYP) at the National Level.
- The National Service Scheme and Nehru Yuva Kendra Sangthan organizations will remain involved at different levels in its conduct and management.

National Youth Day:
- The National Youth Day (also called as Yuva Diwas) is observed on January 12 every year to commemorate the birthday of Swami Vivekananda.
- The main objective is to propagate the philosophy and the ideals of Swami Vivekananda.
- It became a mainstream celebration in India from 1985 onwards and observed on January 12 ever since.

National Service Scheme (NSS):
- The National Service Scheme is an Indian government-sponsored public service program conducted by the Ministry of Youth Affairs and Sports of the Government of India.
- The scheme was launched in Gandhiji’s Centenary year in 1969.
- The University Grants Commission (UGC) headed by Dr. Radhakrishnan recommended introduction of national service in the academic institutions on a voluntary basis with a view to developing healthy contacts between the students and teachers on the one hand and establishing a constructive linkage between the campus and the community on the other hand.

Nehru Yuva Kendra Sangathan:
- Nehru Yuva Kendras was established in 1972.
- Later in 1987 under Rajiv Gandhi Government it became Nehru Yuva Kendra Sangathan, an autonomous organization under Ministry of Youth Affairs and Sports.

4.32 NITI AAYOG 2.0

Context:
- In a paper titled ‘Towards India’s New Fiscal Federalism’, former Finance Commission chairman Vijay Kelkar has pitched for setting up of a ‘new Niti Aayog’ and giving it responsibility for allocating capital and revenue grants to the states.

Need for setting up of ‘Niti Aayog 2.0’:
- Replacing the Planning Commission, which was promoting regionally balanced growth in India, by the Niti Aayog, a think tank, has reduced the government’s policy reach. Therefore, the need has arisen for an institution to do the job at hand related to the structural issues including removal of regional imbalances in the economy.

Few suggestions related to composition and functions of the revamped Niti Aayog:
- It will be responsible for allocating development or transformational capital or revenue grants to the states.
- In order to make the new Niti Aayog more effective, it is essential to ensure that the institution is at the ‘High Table’ of decision making of the government. This means the vice-chairman of the new Niti Aayog will need to be a permanent invitee of the Cabinet Committee on Economic Affairs (CCEA).
- It need not be involved with the approval of the state’s annual expenditure programmes. It
should rather strive to be a think-tank with ‘praxis’ possessing considerable financial muscle and devote its energies to outline coherent medium and long term strategy and corresponding investment resources for transforming India.

- New Niti Aayog will annually need the resources of around 1.5 to 2% of the GDP to provide suitable grants to the states for mitigating the development imbalances.

**Other arguments supporting the revamp of Niti Aayog:**

- NITI Aayog cannot transform a deeply unequal society into a modern economy that ensures the welfare of all its citizens, irrespective of their social identity.
- It has no role in influencing public or private investment. It does not seem to have influence in policymaking with long-term consequences. For instance, demonetisation and the Goods and Services Tax.
- NITI Aayog is supposed to be a think tank. This implies that while generating new ideas, it maintains a respectable intellectual distance from the government of the day. Instead, we see uncritical praise of the Govt-sponsored schemes / programmes.

### 4.33 Operation Kabaddi

**Why is it news now?**

- Former army commanders have revealed the details of this operation in the book, Line on Fire: Ceasefire Violations and India-Pakistan Escalation Dynamics.

**What is it?**

- It was to be the largest planned operation by the Indian Army to end cross-LoC infiltration by capturing at least 25 selected Pakistani posts along the Line of Control (LoC) in September 2001. However, owing to some issues it was not carried out.
- **Operation Kabaddi would include** a "wide spectrum of evolving punitive operations such as the execution of deliberate fire assaults to destroy military and terrorist points, and area targets across the LoC; ambushes and raids across the LOC; and company, battalion, and brigade-sized deliberate offensive attacks to capture objectives of tactical importance across the LoC that would improve the Indian Army’s counter-insurgency (CI) posture."
- **The objective of Operation Kabaddi** was to change the geography of the LoC with access to tactical points there, which would then help the Army tackle the infiltration of militants by the Pakistani side.

### 4.34 Partnership Summit

**Context:**

- The 25th edition of the **Partnership Summit** will be held in Mumbai.
- It is being organized by the Department of Industrial Policy and Promotion, Ministry of Commerce & Industry, Government of India, State Government of Maharashtra and Confederation of Indian Industry.

**What is it?**

- The Partnership Summit provides for a global platform to dialogue, debate, deliberate and engage Indian and global leaders on economic policy and growth trends in India.
- It is expected to build new partnerships and explore investment opportunities through high level exchanges and B2B meetings.
- It will showcase India in the present landscape of an emerging “New India”, the “New Global Economic Address”.

**Confederation of Indian Industry –**

- CII is a non-government, not-for-profit, industry led and industry-managed organization,
playing a proactive role in India’s development process.

- **Founded in 1895**, India’s premier business association has around 9000 members, from the private as well as public sectors, including SMEs and MNCs.
- CII works to create and sustain an environment conducive to the development of India, partnering industry, Government, and civil society, through advisory and consultative processes.

### 4.35 Philip Kotler Presidential Award

**Context:**
- Prime Minister Narendra Modi was awarded first ever Philip Kotler Presidential Award. He was selected for his outstanding leadership for the nation.
- The Philip Kotler Presidential Award recognises and celebrates achievements of organisations, marketing teams, and individuals in different industries around the world.
- Philip Kotler is a world renowned Professor of Marketing at Northwestern University, Kellogg School of Management.

### 4.36 Pradhan Mantri Fasal Bima Yojana (PMFBY)

**Context:**
- Parliament’s committee on estimates has in its latest report called for re-formulation of the Pradhan Mantri Fasal Bima Yojana (PMFBY), seeking transparency in its working and asking for more financial allocations to attract increasing participation from farmers. The committee has observed that *there are fundamental flaws in the design of the scheme that renders it rather ineffective.*

**Background:**
- Pradhan Mantri Fasal Bima Yojana (PMFBY), the flagship programme launched with much fanfare in 2016, has run into rough weather. With both the area covered and the number of enrolled farmers declining, the country’s premium crop insurance scheme is certainly in need of an overhaul.

**Challenges at present:**
- **Data constraints:** With just around 45% of the claims made by farmers over the last three crop seasons data for the last rabi season is not available paid by the insurance companies.
- **Low payout of claims:** The reason for the very low payout of claims is that only few state governments are paying their share of the premiums on time and till they do, the central government doesn’t pay its share either. Till they get the premium, insurance companies simply sit on the claims.
- **Gaps in assessment of crop loss:** There is hardly any use of modern technology in assessing crop damages. There is lack of trained outsourced agencies, scope of corruption during implementation and the non-utilisation of technologies like smart phones and drones to improve reliability of such sampling
- **Less number of notified crops** than can avail insurance, Inadequate and delayed claim payment.
- **High actuarial premium rates:** Insurance companies charged high actuarial premium rates.
- **If states delay notifications, or payment of premiums, or crop cutting data,** companies cannot pay compensation to the farmers in time.
- **Poor capacity to deliver:** There has been no concerted effort by the state government and insurance companies to build awareness of farmers on PMFBY. Insurance companies have failed to set-up infrastructure for proper Implementation of PMFBY.
- **PMBY is not beneficial for farmers in vulnerable regions** as factors like low indemnity levels, low threshold yields, low sum insured and default on loans make it a poor scheme to safeguard
against extreme weather events.

**PMFBY:**

- In April, 2016, the government of India had launched Pradhan Mantri Fasal Bima Yojana (PMFBY) after rolling back the earlier insurance schemes viz. National Agriculture Insurance Scheme (NAIS), Weather-based Crop Insurance scheme and Modified National Agricultural Insurance Scheme (MNAIS).
- **Premium:** It envisages a uniform premium of only 2% to be paid by farmers for Kharif crops, and 1.5% for Rabi crops. The premium for annual commercial and horticultural crops will be 5%.
- **The scheme is mandatory for farmers who have taken institutional loans from banks.** It’s optional for farmers who have not taken institutional credit.

**Objectives:**

- Providing financial support to farmers suffering crop loss/damage arising out of unforeseen events.
- Stabilizing the income of farmers to ensure their continuance in farming.
- Encouraging farmers to adopt innovative and modern agricultural practices.
- Ensuring flow of credit to the agriculture sector which contributes to food security, crop diversification and enhancing growth and competitiveness of agriculture sector besides protecting farmers from production risks.

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**4.37 Pradhan Mantri Gram Sadak Yojana (PMGSY)**

**Context:**

- In order to encourage locally available materials and use of green technologies for construction of road under Pradhan Mantri Gram Sadak Yojana (PMGSY), guidelines were issued by the Ministry.

**States’ Contribution:**

- The State Governments are required to propose minimum 15% of total length of annual proposals under new technologies like Cement stabilization, Lime stabilization, Cold mix, Waste plastics, Cell filled concrete, Paneled cement concrete pavement, Fly ash etc.

**Further Relaxation:**

- The Ministry of Rural Development specifications have also been relaxed in respect of grading of...
materials for Granular Sub Base layer in order to encourage the usage of locally available/naturally occurring material/marginal materials.

Current Scenario:
- Andhra Pradesh Government had submitted proposal for converting 37 roads of 163.49 KM sanctioned under Road Connectivity Project for Left Wing Extremism Affected Areas with conventional method of construction to New Technology.
- There is no other proposal of the State on New Technology pending with the Government at present.
- The Ministry has so far sanctioned 35,922 KM length of roads using New Technologies and 22,983.96 KM have been completed.

Background:
- Pradhan Mantri Gram Sadak Yojana (PMGSY) encourages the use of ‘Green Technologies’ and non-conventional materials like waste plastic, cold mix, geo-textiles, fly-ash, iron and copper slag etc in rural roads.
- The primary objective of PMGSY is to provide connectivity by way of all-weather roads. The programme also has an Upgradation component with a target to upgrade existing rural roads in order to ensure full farm to market connectivity.
- With a view to bringing transparency and responsiveness in governance, plug leakages and to quickly address the citizen grievances; PMGSY has been encouraging use of information technology, mobile technology and space technology.
- Meri Sadak – A mobile application “Meri Sadak” was launched to enable citizens to register complaints regarding the quality and pace of construction of PMGSY roads.

4.38 Pravasi Bhartiya Divas (PBD)

Context:
- The 15th annual Pravasi Bhartiya Divas (PBD) is being held in Varanasi, Uttar Pradesh. Usually celebrated on or around 9th January, the grand scale of arrangements that went behind this year’s celebrations pushed the event to January 21-23.
- Chief Guest: The Prime Minister of Mauritius, Pravind Jugnath.
- Theme: “Role of Indian Diaspora in building New India”.
- The first chapter of Pravasi Bhartiya Divas was held in 2003 to recognise the contributions of NRIs in academic and professional fields across the world.
- The reason 9th January is usually set aside for celebrating Pravasi Bhartiya Divas is that Mahatma Gandhi returned from South Africa on this day in 1915.
- Significance: These conventions provide a platform to the overseas Indian community to engage with the government and Indian communities in India for mutually beneficial activities. These conventions are also very useful in networking among the overseas Indian community residing in various parts of the world and enable them to share their experiences in various fields.

4.39 Pravasi Teerth Darshan Yojana

Context:
- Govt has launched the Pravasi Teerth Darshan Yojana.

Key Highlights:
- Under the scheme, a group of Indian diaspora will be taken on a government-sponsored tour of religious places in India twice a year.
- The group will be taken to the religious places of all major religions in India.
- The tour would be completely government sponsored.
Under the eligibility criteria, all people of Indian-origin, aged between 45 and 65 can apply and a group will be selected out of them.

The first preference will be given to people from ‘Girmitiya countries’ such as Mauritius, Fiji, Suriname, Guyana, Trinidad and Tobago and Jamaica.

Who are Girmityas?

- **Girmityas or Jahajis** are descendants of indentured Indian labourers brought to Fiji, Mauritius, South Africa, East Africa, the Malay Peninsula, Caribbean and South America (Trinidad and Tobago, Guyana and Suriname) to work on sugarcane plantations for the prosperity of the European settlers and save the Fijians from having to work on these plantations and thus to preserve their culture.

- The term Girmitiya was coined by Mahatma Gandhi who referred to himself as first Girmitiya.

- The countries where these indentured Indian labourers settled are known as Girmitiya countries.

### 4.40 Programme for International Student Assessment- PISA 2021

**Context:**

- The Union Human Resources Development Ministry has signed an agreement with Organisation for Economic Co-operation and Development (OECD) for India’s Participation in Programme for International Student Assessment- PISA 2021.

- The students will be selected by PISA through random sampling. The schools run by Kendriya Vidalaya Sangathan (KVS), Navodaya Vidalaya Samiti (NVS) and schools in the UT of Chandigarh would be participating.

**Significance:**

- India’s participation in PISA-2021 would lead to recognition and acceptability of Indian students and prepare them for the global economy in the 21st century.

**Background:**

- India had taken part in Programme for International Student Assessment (PISA) in 2009 and bagged the 72nd rank among 74 participating countries. Then UPA government had boycotted PISA, blaming “out of context” questions for India’s dismal performance.

- Later, the HRD Ministry, under the NDA-II government, revisited this decision in 2016 and the Kendriya Vidalaya Sangathan (KVS) had set up a committee to review the matter and submitted its report in December 2016. The report recommended for participation in test in 2018. However, India missed the application deadline for the 2018 cycle.

**Program for International Student Assessment (PISA):**

- It is an international assessment that measures 15-year-old students’ reading, mathematics, and science literacy every three years.

- First conducted in 2000, the major domain of study rotates between reading, mathematics, and science in each cycle. PISA also includes measures of general or cross-curricular competencies, such as collaborative problem solving.

- By design, PISA emphasizes functional skills that students have acquired as they near the end of compulsory schooling.

- PISA is coordinated by the Organization for Economic Cooperation and Development (OECD), an intergovernmental organization of industrialized countries, and is conducted in the United States by NCES. Data collection for the most recent assessment was completed in Fall 2015.

- In 2012 PISA test, schools of Shanghai in China topped reading, mathematics and science test, followed closely by Singapore. In 2015, Singapore, Japan and Estonia were ranked as top three countries, in that order.
4.41 Rashtriya Bal Puraskar

Context:
- Rashtriya Bal Puraskar was recently awarded to 26 awardees by the President.

Rashtriya Bal Puraskar:
- The earlier national awards for children have been revamped as Pradhan Mantri Rashtriya Bal Puraskar. An additional component of bravery has also been added.

Categories:
- **Bal Shakti Puraskar**: The Bal Shakti Puraskar is given in the fields of Innovation, Social Service, Scholastic, Sports, Art & Culture, and Bravery. The award carries a medal, a cash prize of Rs 100000, book vouchers worth Rs. 10,000, a certificate and a citation.
- **Bal Kalyan Puraskar**: The Bal Kalyan Puraskar is given in the categories of Individual and Institution. The award for Individual category consists of a cash prize of Rs 100000, a medal, a citation and a certificate. The award for Institution category consists of a prize of Rs 500000 each, a medal, a citation and a certificate.

4.42 Renuka dam project

Context:
- The Centre has signed an agreement with Chief Ministers of five States — Uttar Pradesh, Rajasthan, Uttarakhand, Delhi, Himachal Pradesh — to restart construction of the Renuka multipurpose dam project in the Upper Yamuna Basin.

Renuka dam project:
- The Renuka dam project has been conceived as a storage project on the Giri river (a tributary of the Yamuna) in Sirmaur district of Himachal Pradesh.
- The project envisages making a 148-metre-high dam for supplying water to Delhi and other basin States. It will also generate 40 MW of power.
- **Funding**: Around 90% of the cost of irrigation/drinking water component of the project i.e. ₹3,892.83 crore will be provided by the Central government and the remaining ₹432.54 crore by the rest of the basin States.

Significance and impacts:
- After the construction of the dam, the flow of the Giri river will increase by about 110%, which will help meet the drinking water needs of Delhi and other basin States.
- Water from the Renuka dam will be used by U.P., Haryana and National Capital Territory of Delhi from Hathnikund barrage, by the NCT of Delhi from Wazirabad barrage and by U.P., Haryana and Rajasthan from the Okhla barrage.

4.43 Roadeo

What is it?
- The traffic police authorities of Pune are planning to introduce a robot named ‘Roadeo’ which would move around city roads, functioning as a quasi-traffic policeman and cautioning commuters about traffic rules and offences.
- It is a first of its kind initiative in the entire country. If this pilot project turns out to be successful it would go a long way in easing the traffic management burden and reducing the workload of overburdened policemen.

4.44 ROSHINI app

- It is an app to help visually impaired, to differentiate between new post demonetization currencies of India.
• It is developed by IIT Ropar, Punjab.
• Earlier the visually impaired persons differentiated the currencies based on the length and width
  of the note, but after demonetization it became very difficult for them to identify the
  denomination, due to similarity in the sizes of new and old notes.
• The user has to bring the currency note in front of phone camera and the App would provide
  audio notification intimating the currency note denomination to the user.
• It is the first Android App and it works well in broad range of light conditions and holding
  angles.
• The Seeing AI App by Microsoft is the only other App that facilitates recognition of both old
  and new Indian currency notes, but it is an iOS (iPhone OS) App and not available for visually
  impaired.

4.45 Saksham (Sanrakshan Kshamta Mahotsav)
Context:
• Saksham (Sanrakshan Kshamta Mahotsav) is an annual flagship event of Petroleum
  Conservation Research Association (PCRA) under the aegis of Ministry of Petroleum &
  Natural Gas, Government of India.
• Saksham actively involves the Oil & Gas PSUs along with other stakeholders like State
  Governments,
• To create focused attention on fuel conservation through people centric activities and
• To sensitize the masses about the conservation and efficient use of petroleum products leading to
  better health and environment.
PCRA (established in 1978):
• Petroleum Conservation Research Association (PCRA) is a registered society set up under the
  aegis of Ministry of Petroleum & Natural Gas, Government of India.
• As a non-profit organization, PCRA is a national government agency engaged in promoting
  energy efficiency in various sectors of economy.
• PCRA aims at making oil conservation a national movement. As part of its mandate, PCRA is
  entrusted with the task of creating awareness amongst the masses about the importance, methods
  and benefits of conserving petroleum products & emission reduction.
• It sponsors R&D activities for the development of fuel-efficient equipment / devices and
  organizes multi-media campaigns for creating mass awareness for the conservation of petroleum
  products.
• To take the message to the people, PCRA uses all possible and effective media for mass
  communication.
• To give impetus to the oil conservation movement, PCRA utilizes various platforms like the
  World environment day, World energy day, various festivals etc.
• It functions as a Think Tank to the Govt. of India for proposing policies and strategies on
  petroleum conservation and environment protection aimed at reducing excessive dependence on
  oil.
• For the benefit of various target groups of petroleum products, PCRA has developed literature
  containing simple ready to implement conservation tips and techniques.
• Special low cost green leaflets have also been developed to educate the masses on the ill effects of
  pollution caused due to incomplete combustion and its impact on health.

4.46 Sarva Bhasha Kavi Sammelan
Context:
Kavi Sammelan, a National Symposium of Poets, is being held in Chennai.

Sarva Bhasha Kavi Sammelan:
- Sarva Bhasha Kavi Sammelan of All India Radio (AIR) aims to provide a creative platform for national integration and linguistic harmony through mutual interaction and coordinated presentation of the best in contemporary poetry of all Indian languages.
- The Kavi Sammelan made its beginning in 1956 and is one of its kind programme wherein 23 eminent poets from 22 Indian languages come together on one stage to offer their creative best.

Sea Vigil
- It is the first coastal defence Exercise, conducted by the Navy and Coast Guard, in close coordination with State Governments and Union Territories. It was the largest such exercise the country had ever witnessed in recent times and saw participation by more than 100 ships, aircraft and patrol boats manned and operated by various security agencies.
- Aim: To comprehensively and holistically validate the efficacy of the measures taken since ’26/11’.

Spiritual Circuit in Kerala
Context:
- Prime Minister Narendra Modi recently inaugurated a project for the development of spiritual circuit comprising three important pilgrimage centres of Sree Padmanabha Swamy Temple, Aranmula and Sabarimala in Kerala.
- The Sree Padmanabhaswamy Temple is one of the 108 divyadesams of Lord Vishnu.
- The project is being implemented under the Swadesh Darshan scheme of the tourism ministry.

Swadesh Darshan Scheme:
- The Tourism Ministry had launched ‘Swadesh Darshan’ scheme with an objective to develop theme-based tourist circuits in the country. These tourist circuits will be developed on the principles of high tourist value, competitiveness and sustainability in an integrated manner.

Features of Swadesh Darshan Scheme:
- The scheme is 100% centrally funded for the project components undertaken for public funding.
- It leverages the voluntary funding available for Corporate Social Responsibility (CSR) initiatives of Central Public Sector Undertakings and corporate sector.
- Funding of individual project will vary from state to state and will be finalised on the basis of detailed project reports prepared by PMC (Programme Management Consultant).
- A National Steering Committee (NSC) will be constituted with Minister in charge of M/O Tourism as Chairman, to steer the mission objectives and vision of the scheme.
- A Mission Directorate headed by the Member Secretary, NSC as a nodal officer will help in identification of projects in consultation with the States/ UTs governments and other stake holders.
- PMC will be a national level consultant to be appointed by the Mission Directorate.

Status Paper on Government Debt for 2017-18
Context:
- The centre has released a Status Paper on Government Debt for 2017-18.
Key findings:
- The Centre’s total debt as a percentage of GDP reduced to 46.5% in 2017-18 from 47.5% as of March 31, 2014.
The total debt of the States has risen to 24% in 2017-18, and is estimated to be 24.3% in 2018-19. In absolute terms, the Centre’s total debt increased from ₹56,69,429 crore at the end of March 2014 to ₹82,35,178 crore in 2017-18, representing a 45% increase. The total debt of the States increased from ₹24,71,270 crore to ₹40,22,090 crore over the same period, an increase of almost 63%.

Key takeaways:
- While the Centre is moving in the right direction in terms of meeting the N.K. Singh Committee recommendations on public debt, the States are moving in the opposite direction.
- Outstanding liabilities of States have increased sharply during 2015-16 and 2016-17, following the issuance of UDAY bonds in these two years.
- The increase in the debt stock at the State level is worrying because they don’t have the wherewithal to service the debt if it goes beyond a certain point. They could then start getting into a debt trap situation.

Recommendations by N.K. Singh committee:
- The N.K. Singh-headed FRBM (Fiscal Responsibility and Budget Management) Review Committee report had recommended the ratio to be 40% for the Centre and 20% for the States, respectively, by 2023.
- It said that the 60% consolidated Central and State debt limit was consistent with international best practices, and was an essential parameter to attract a better rating from the credit ratings agencies.

Way ahead for states:
- The States do have some fiscal space to reduce their borrowing in the coming years due to the large cash surpluses they hold. This indicates scope for reducing the quantum of market borrowings by State governments in case they bring down their cash surpluses (parked as investment in treasury bills of the Central government).
- State governments as a group have exhibited a tendency to hold large cash surpluses/investments in Cash Balance Investment Account on a consistent basis while at the same time resorting to market borrowings to finance their GFD (Gross Fiscal Deficit).

4.50 Statutory status to the Staff Selection Commission (SSC)

Context:
- A Parliamentary Standing Committee (PSC) has recommended that the Centre accord statutory status to the Staff Selection Commission (SSC), one of the largest recruitment agencies in the country.

Background:
- The SSC was created to ease the burden of the UPSC by taking over the recruitment for posts below the Group ‘A’ level. The Union Public Service Commission (UPSC) and all State Public Service Commissions either have constitutional or legal status. The SSC is the only such organisation that performs similar functions on a much larger scale, but does not enjoy statutory status.
- At present, the SSC has a sanctioned staff strength of 481 officers but is functioning with 75% of its sanctioned strength.

Need for a statutory status:
- There has been a phenomenal increase in the workload of the SSC, from 9.94 lakh candidates in 2008-09 to over 2 crore in 2016-17.
- While the workload and responsibilities of the SSC have increased exponentially over the years, it has remained an “attached body” under the Department of Personnel and Training.
(DoPT), and has to depend entirely on the government for all its needs, with no autonomy.

- According statutory status to the SSC would contribute to greater functional autonomy, faster decision-making and efficiency in the overall performance and delivery of results by the SSC in the recruitment process.

4.51 Street Light National Programme (SLNP)

**Context:**
- The Centre is likely to miss the goals it had set under the Street Lighting National Programme (SLNP) when it was launched on January 5, 2015.
- **Energy Efficiency Services Limited** has installed over 76.77 lakh LED street lights in 28 States or Union Territories till January 3, 2019.

**Street Light National Programme (SLNP):**
- Under the SLNP, the Government aims to replace 3.5 crore conventional street lights with energy efficient LED lights.
- The target under SLNP is to replace 1.34 crore conventional street lights with energy efficient LED street lights by March 2019.
- The project has been implemented across 28 states and union territories. Energy Efficiency Services Limited, a Public Energy Services Company under the administration of Ministry of Power, Government of India (GoI) is the implementing agency for SLNP.
- EESL also undertakes social audits in all states post the completion of the project.

**Objectives:**
- Mitigate climate change by implementing energy efficient LED based street lighting.
- Reduce energy consumption in lighting which helps DISCOMs to manage peak demand.
- Provide a sustainable service model that obviates the need for upfront capital investment as well as additional revenue expenditure to pay for procurement of LED lights.
- Enhance municipal services at no upfront capital cost of municipalities.

**Significance:**
- The installation of LED-based street lighting system is essential, since LED lighting offer higher efficiency, better illumination and life expectancy apart from being environmentally sustainable.

4.52 Subhash Chandra Bose Aapda Prabandhan Puraskar

- Subhash Chandra Bose Aapda Prabandhan Puraskar, an annual award, has been instituted by the government. The award is to be announced every year on 23rd January on the birth anniversary of Netaji Subhash Chandra Bose.
- **Eligibility:** All Indian Citizens and organizations, who have excelled in areas of Disaster Management; like Prevention, Mitigation, Preparedness, Rescue, Response, Relief, Rehabilitation, Research/ Innovations or Early Warning are eligible for the Subhash Chandra Bose Aapda Prabandhan Puraskar.
- **2019 awardee:** For the year 2019, 8th Battalion of National Disaster Response Force (NDRF) located at Ghaziabad has been selected for its commendable work in Disaster Management. The Award recipient will receive a certificate and a cash prize of Rs. 51 lakh.

4.53 The Aadhaar and Other Laws (Amendment) Bill, 2018

**Context:**
- The Aadhaar and Other Laws (Amendment) Bill, 2018 has been introduced in the Lok Sabha. The Aadhaar Act provides targeted delivery of subsidies and benefits to individuals residing in
India by assigning them unique identity numbers, called Aadhaar numbers.


**Key features of the Bill:**

- **Offline verification of Aadhaar number holder:** The Bill allows ‘offline verification’ of an individual’s identity, without authentication, through modes specified by the Unique Identification Authority of India (UIDAI) by regulations.

- **During offline verification, the agency must** (i) obtain the consent of the individual, (ii) inform them of alternatives to sharing information, and (iii) not collect, use or store Aadhaar number or biometric information.

- **Voluntary use of Aadhaar to verify identity:** The Bill states that an individual may voluntarily use his Aadhaar number to establish his identity, by authentication or offline verification. Authentication of an individual’s identity via Aadhaar, for the provision of any service, may be made mandatory only by a law of Parliament.

- **Entities using Aadhaar:** An entity may be allowed to perform authentication through Aadhaar, if the UIDAI is satisfied that it is (i) compliant with certain standards of privacy and security, or (ii) permitted by law, or (iii) seeking authentication for a purpose specified by the central government in the interest of the State.

- **Aadhaar number of children:** The Bill specifies that at the time of enrolling a child to obtain an Aadhaar number, the enrolling agency shall seek the consent of his parent or guardian. The agency must inform the parent or guardian of (i) the manner in which the information will be used, (ii) the recipients with whom it will be shared, and (iii) their right to access the information. After attaining eighteen years of age, the child may apply for cancellation of his Aadhaar.

- **Disclosure of information in certain cases:** Under the Act, restrictions on security and confidentiality of Aadhaar related information do not apply in case the disclosure is pursuant to an order of a District Court (or above). The Bill amends this to allow such disclosure only for orders by High Courts (or above). The Bill also allows disclosure of information on directions of officers not below the rank of a Secretary.

- **UIDAI Fund:** Under the Act, all fees and revenue collected by the UIDAI shall be credited to the Consolidated Fund of India. The Bill removes this provision, and creates the Unique Identification Authority of India Fund. All fees, grants and charges received by the UIDAI shall be credited to this fund. The fund shall be used for expenses of the UIDAI, including salaries and allowances of its employees.

- **Complaints:** The Bill allows the individual to register complaints in certain cases, including impersonation or disclosure of their identity. The Bill defines the Aadhaar ecosystem to include enrolling agencies, requesting agencies, and offline verification-seeking entities. It allows the UIDAI to issue directions to them if necessary for the discharge of its functions under the Act.

- **Penalties:** Under the Bill, the UIDAI may initiate a complaint against an entity in the Aadhaar ecosystem for failure to (i) comply with the Act or the UIDAI’s directions, and (ii) furnish information required by the UIDAI. Adjudicating Officers appointed by the UIDAI shall decide such matters, and may impose penalties up to one crore rupees on such entities. The Telecom Disputes Settlement and Appellate Tribunal shall be the appellate authority against decisions of the Adjudicating Officer.

**Why the amendments are proposed?**

- While upholding the constitutional validity of Aadhaar, the Supreme Court had struck down Section 57 of the Aadhaar Act, 2016 that permitted private entities like telecom companies or other corporate to avail of the biometric Aadhaar data. Hence to address the issues like
recognising the authentification of those who provided Aadhaar as the identity proof, the amendments are brought in by the government.

### 4.54 Unlawful Activities (Prevention) Act, 1967 (UAPA)

**Context:**
- In exercise of the powers vested in the Central Government under Section 3 of the **Unlawful Activities (Prevention) Act, 1967 (UAPA)**, the Government on being satisfied that the organizations have become Unlawful, has declared the following Organizations as Unlawful Associates during the last three years:
  1. Islamic Research Foundation (IRF)
  2. National Liberation Front in Tripura (NLFT)
  3. All Tripura Tiger Forum (ATTF)
- Under Section 35 of UAPA, the Government on being satisfied that the organization is involved in terrorism had added the following organizations to the First Schedule of UAPA during the last three years:
  1. Al-Qaida in Indian Sub-continent (AQIS) and all its manifestations.
  2. Islamic State in Khorasan Province (ISKP)/ISIS Wilayat Khorasan/Islamic State of Iraq and the Sham-Khorasan (ISIS-K) and all its manifestations.

**Current Scenario:**
- The **National Investigation Agency (NIA)** has arrested 418 accused persons under UAPA during the last three years. But, the State Police also detain accused persons under UAPA, the details of which are not maintained by the Central Government.
- The Government has not removed any organization from the list of banned organizations under the UAPA during the last three years.
- The Government has not released any person detained under UAPA. However, the data of persons detained under UAPA and released on the order of the competent courts is not maintained by the Government.

**Background:**
- **National Investigation Agency (NIA):** (HQ – New Delhi)
- The National Investigation Agency was established after the enactment of the NIA Act on 31st Dec 2008.
- Presently, NIA is functioning as the **Central Counter Terrorism Law Enforcement Agency in India.**
- NIA comes under the **Ministry of Home Affairs.**
- **Vision of NIA –**
  - The National Investigation Agency aims to be a thoroughly professional investigative agency matching the best international standards. The NIA aims to set the standards of excellence in counter terrorism and other national security related investigations at the national level by developing into a highly trained, partnership oriented workforce. NIA aims at creating deterrence for existing and potential terrorist groups/individuals. It aims to develop as a storehouse of all terrorist related information.
POLITICAL ISSUES, HUMAN RIGHTS AND GOVERNANCE

5.1 103 Amendment Act, 2019

Context:
- President Ram Nath Kovind has given his assent to the bill providing 10% reservation in jobs and educational institutions to the economically weaker sections in the general category.
- The legislation will be known as the Constitution (103 Amendment) Act, 2019 and it shall come into force on such date as the Centre notifies.
- The 10% reservation will be in addition to the existing cap of 50% reservation for the Scheduled Castes, Scheduled Tribes and the Other Backward Classes, taking the total reservation to 60%.
- 124th Constitutional Amendment- This amended two fundamental rights:
  1. Article 15, which prohibits discrimination on the grounds of race, religion, caste, sex or place of birth.
  2. Article 16 which prohibits discrimination in employment in government office.
- It also makes a note of the Article 46, which asks the government to promote the educational and economic interests of the weaker sections of the society.

It provides reservation for:
- People who have an annual income of less than Rs.8 lakhs.
- People who own less than five acres of farm land.
- People who have a house lesser than 1,000 sq feet in a town (or 100 sq yard in a notified municipal area).

Debatable problems:
- The major hurdle for the implementation of the recent Act is the legal scrutiny.
- The Supreme Court has ruled multiple times against exceeding its 1992 formula of a maximum of 50% reservation (Indira Sawhney v. Union of India).
- However, there are states like Tamil Nadu that go beyond this limit and the Supreme Court has upheld the state's policy many a time. Presently, the state has a ‘69 per cent quota system’.

What is the basic structure?
- The idea of basic structure was originally suggested by Justice M Hidayatullah & Justice J R Mudholkar in Sajjan Singh (1965). It has been borrowed from Germany.
- In Kesavananda Bharati (1973), the Supreme Court held that Parliament can amend the Constitution but does not have power to destroy it — no amendment can change its “basic structure”. The court said that under Article 368, something must remain of the original Constitution that the new amendment would amend.
- However, the court did not define what basic structure is, and only listed a few principles — federalism, secularism, democracy — as being part of basic structure. Since then, the court has been adding new features to the concept of basic structure. In subsequent years, courts extended the doctrine even to ordinary legislation and executive actions.

Does it violate fundamental rights?
- From the Poona Pact (1932) between M K Gandhi and Dr B R Ambedkar to the Constituent Assembly debates, reservation was talked about in the context of social backwardness of classes.
- The 124th Amendment makes a departure by extending reservation to the economically disadvantaged. Article 15(4), inserted by the First Amendment in 1951, enables the state to make special provisions for socially and educationally backward classes.
- Article 16(4) permits reservation for any backward class if it is not adequately represented in services under the state.
- Thus, reservation is not a right but, if granted, it will not be considered a violation of the right to equality.
Article 46 and the upper caste:

- Article 46, which is a non-justiciable Directive Principle, says that the state shall promote educational and economic interests of “weaker sections”, in particular SCs and STs, and protect them from “social injustices” and “all forms of exploitation”.
- While the 124th Amendment mentions Article 46 in its statement and objects, it seems the government overlooked the fact that upper castes neither face social injustice nor are subjected to any form of exploitation.
- Moreover, the Constitution makes provisions for commissions to look into matters relating to implementation of constitutional safeguards for Scheduled Castes (Article 338), Scheduled Tribes (338A) and Socially and Educationally Backward Classes (339), but has not created any commission for the economically backward classes.

Way ahead:

- Equality in India has been held to be the very essence of democracy and rule of law. While equality permits reasonable classifications, these are to be based on intelligible differentia, should have rational objects to achieve and should not be fanciful and arbitrary.
- In this case, the court has to examine the equality code of the Constitution and whether the state has considered and valued the circumstances justifying it, to make reservation. This would require that the state’s decision is rational and non-arbitrary. The state has to show quantifiable data to satisfy the court as to inadequacy of representation of economically backward classes.

5.2 Ama Ghare LED scheme

Context:

- Odisha has launched the ‘Ama Ghare LED’ scheme, under which about 95 lakh families in the State will each get four LED bulbs free of cost.

Key features of the scheme:

- Under the scheme, 9-watt LED bulbs will be distributed to the beneficiaries registered under the National Food Security Act (NFSA) and the State Food Security Scheme (SFSC).
- Odisha Power Transmission Corporation Ltd (OPTCL) will implement the scheme and the bulbs will be distributed through camps and PDS outlets across the State.
- Biometric authentication: The beneficiaries will have to produce biometric authentication to get the benefits of the scheme.

5.3 Article 35A

Context:

- The Supreme Court has said that it would take an “in-chamber” decision on listing of a petition challenging the constitutional validity of Article 35A, which provides special rights and privileges to permanent residents of Jammu and Kashmir.
- ‘In-chamber’ decision refers to a process of decision making where the orders are issued from the Justice’s chambers without a formal court proceeding.

Background:

- In August last year, the top court adjourned hearing on a batch of petitions challenging Article 35A till January this year, after taking note of submissions of the Centre and the state government that there was a law and order problem in the state.

What’s the issue?

- A petition has been filed in the Supreme Court which says Article 35A was against the “very spirit of oneness of India” as it created a “class within a class of Indian citizens”. It said restricting citizens from other States from getting employment or buying property within Jammu
and Kashmir is a violation of fundamental rights under Articles 14, 19 and 21 of the Indian Constitution.

What is Article 35A?

- Article 35A is a provision incorporated in the Constitution giving the Jammu and Kashmir Legislature a carte blanche to decide who all are ‘permanent residents’ of the State and confer on them special rights and privileges in public sector jobs, acquisition of property in the State, scholarships and other public aid and welfare.
- The provision mandates that no act of the legislature coming under it can be challenged for violating the Constitution or any other law of the land.

How did it come about?

- Article 35A was incorporated into the Constitution in 1954 by an order of the then President Rajendra Prasad on the advice of the Jawaharlal Nehru Cabinet.
- The Presidential Order was issued under Article 370 (1) (d) of the Constitution. This provision allows the President to make certain “exceptions and modifications” to the Constitution for the benefit of ‘State subjects’ of Jammu and Kashmir.
- So, Article 35A was added to the Constitution as a testimony of the special consideration the Indian government accorded to the ‘permanent residents’ of Jammu and Kashmir.

Critical side of Article 35A:

- How Article 35A is against the “very spirit of oneness of India” as it creates a “class within a class of Indian citizens”?
- It treats non-permanent residents of J&K as ‘second-class’ citizens.
- Non-permanent residents of J&K are not eligible for employment under the State government and are also debarred from contesting elections.
- Meritorious students are denied scholarships and they cannot even seek redress in any court of law.
- Further, the issues of refugees who migrated to J&K during Partition are still not treated as ‘State subjects’ under the J&K Constitution.
- It was inserted unconstitutionally, bypassing Article 368 which empowers only Parliament to amend the Constitution.
- The laws enacted in pursuance of Article 35A are ultra vires of the fundamental rights conferred by Part III of the Constitution, especially, and not limited to, Articles 14 (right to equality) and 21 (protection of life).

Way ahead:

- This matter requires the active participation of all stakeholders. It is necessary to give confidence to the residents of J&K that any alteration in status quo will not take away their rights but will boost J&K’s prosperity as it will open doors for more investment, resulting in new opportunities. Article 35A, which was incorporated about six decades ago, now requires a relook, especially given that J&K is now a well-established democratic State.

5.4 Ayushman Bharat completes 100 days, government focuses on ‘greenfield’ states

Context:

- Modi government's ambitious health insurance scheme, Ayushman Bharat, Pradhan Mantri Jan AarogyaYojana (AB-PMJAY) on 31 December 2018 completed 100 days after its launch
on 23 September 2018.

- In this period of time, under AB-PMJAY, the ministry of health and family welfare issued at least 41,45,727 e-cards to the beneficiaries. As on 1 January 2019, over 6,95,310 patients were admitted in various empaneled private and public hospitals across India.

Key points:

- **Greenfield States** are those, where there was no health insurance scheme earlier such as Uttar Pradesh (UP), Bihar, Haryana, (Madhya Pradesh (MP), Himachal Pradesh (HP), Jammu & Kashmir and Jharkhand.”
- The government has already approved a claim amount of Rs 537 crore in last 100 days. Currently, 15,972 hospitals have been empaneled under the scheme and at least 59,219 hospitals have applied for empanelment under the scheme.
- **Dubbed as “Modicare”, AB-PMJAY provides an annual health cover of Rs 5 lakh per family** to about 500 million economically deprived people based on the Socio Economic Caste Census (SECC) data.
- As many as 31 states and Union Territories (UTs) have signed the MoUs with the Centre to implement the programme.
- The remaining states and UTs, including Telangana, Odisha, Delhi, Kerala and Punjab, have opted out of the scheme.
- Delhi however has not adopted the scheme, but nine private hospitals have signed an Memorandum of understanding to provide their services under the AB-PMJAY in December 2018.

**SECC:**

- The Socio Economic and Caste Census 2011 (SECC) was conducted for the 2011 Census of India.
- The SECC 2011 was conducted in all states and union territories of India and the first findings were revealed on 3 July 2015 by Union Finance Minister Arun Jaitley.
- SECC 2011 is also the first paperless census in India conducted on hand-held electronic devices by the government in 640 districts.
- The rural development ministry has taken a decision to use the SECC data in all its programmes such as MGNREGA, National Food Security Act, and the Deen Dayal Upadhyaya Grameen Kaushalya Yojana.
- SECC 2011 was the first-ever caste-based census since 1931 Census of India and it was launched on 29 June 2011 from the Sankhola village of Hazemara block in West Tripura district.

### 5.5 Bharatmala project

**Context:**

- The National Highways Authority of India (NHAI) plans to raise Rs10,000 crore through Bharatmala Taxable Bonds in the ongoing financial year.
- As per the internal and extra budgetary resources approved for 2018-19 by the government, a sum of Rs62,000 crore is to be raised by NHAI through various instruments/sources including Bharatmala bonds.

**What is Bharatmala project?**

- Bharatmala Project is the second largest highways construction project in the country since NHDP, under which almost 50,000 km or highway roads were targeted across the country. Bharatmala will look to improve connectivity particularly on economic corridors, border areas and far flung areas with an aim of quicker movement of cargo and boosting exports.

**NHAI:**
The National Highways Authority of India was constituted by an act of Parliament, the National Highways Authority of India Act, 1988. It is responsible for the development, maintenance and management of National Highways entrusted to it and for matters connected or incidental thereto. The Authority was operationalised in Feb, 1995.

5.6 Citizenship (Amendment) Bill, 2016

Context:
- Locals in Arunachal Pradesh and Mizoram are protesting against the contentious Citizenship (Amendment) Bill, 2016 because it would serve as a legal basis for legitimising the claims of Chakma and Hajong refugees as the indigenous people of State.

What’s the issue?
- The Citizenship Bill seeks to grant citizenship to six minority communities — Hindus, Sikhs, Buddhists, Jains, Parsis, and Christians — without valid documents from Afghanistan, Bangladesh and Pakistan after six years of stay in India. Locals are concerned as this bill seeks to grant citizenship to Chakma and Hajong refugees.

Who are they?
- Chakmas and Hajongs were originally residents of Chittagong Hill Tracts in the erstwhile East Pakistan. They left their homeland when it was submerged by the Kaptai dam project in the 1960s.
- The Chakmas, who are Buddhists, and the Hajongs, who are Hindus, also allegedly faced religious persecution and entered India through the then Lushai Hills district of Assam (now Mizoram). The Centre moved the majority of them to the North East Frontier Agency (NEFA), which is now Arunachal Pradesh.
- Their numbers have gone up from about 5,000 in 1964-69 to one lakh. At present, they don’t have citizenship and land rights but are provided basic amenities by the state government.

5.7 CITIZENSHIP AMENDMENT BILL 2016

Context:
- A Joint Parliamentary Committee (JPC) has adopted a report clearing the contentious Citizenship (Amendment) Bill, 2016, which seeks to amend the Citizenship Act, 1955.

CITIZENSHIP AMENDMENT BILL 2016:
- The Citizenship Amendment Bill 2016 seeks to allow illegal migrants from certain minority communities in Afghanistan, Bangladesh and Pakistan eligible for Indian citizenship. In other words, it amends the Citizenship Act of 1955.
- The Bill provides that the registration of Overseas Citizen of India (OCI) cardholders may be cancelled if they violate any law.

What does it want?
- The Citizenship Amendment Bill seeks to allow illegal migrants belonging to the Hindu, Sikh, Buddhist, Jain, Parsi or Christian religious communities coming from Afghanistan, Bangladesh or Pakistan to not be imprisoned or deported.
- It also appeals for the minimum years of residency in India to apply for citizenship to be lessened from at least 11 to six years for such migrants.
- The Bill, however, does not extend to illegal Muslim migrants. It also does not talk about other minority communities in the three neighbouring countries, such as Jews, Bahais etc.

Why are people in Assam not happy about it?
- The Citizenship Amendment Bill has not been sitting well with the Assamese as it contradicts the...
Assam Accord of 1985, which clearly states that illegal migrants heading in from Bangladesh after March 25, 1971, would be deported.

What is the Citizenship Act 1995?

- **Under Article 9 of the Indian Constitution**, a person who voluntarily acquires citizenship of any other country is no longer an Indian citizen.
- **Citizenship by descent**: Persons born outside India on or after January 26, 1950, but before December 10, 1992, are citizens of India by descent if their father was a citizen of India at the time of their birth.
- From December 3, 2004, onwards, persons born outside of India shall not be considered citizens of India unless their birth is registered at an Indian consulate within one year of the date of birth.
- In Section 8 of the Citizenship Act 1955, if an adult makes a declaration of renunciation of Indian citizenship, he loses Indian citizenship.

Who is an illegal immigrant?

- According to the Citizenship Act (1955), an illegal immigrant is defined as a person who enters India without a valid passport or stays in the country after the expiry of the visa permit. Also, the immigrant who uses false documents for the immigration process.

What are the guidelines to become an Indian citizenship?

- Citizenship is granted to an individual by the government of the country when he/she complies with the legal formalities, so it’s like a judicial concept.
- **In India, the Citizenship Act, 1995 prescribes five ways of acquiring citizenship:**
  1. Birth
  2. Descent
  3. Registration
  4. Naturalization
  5. Incorporation of the territory.

**5.8 Delhi govt plans to start bird hospitals**

**Context:**
- In a first, the government of Delhi has proposed a specialised treatment facility for birds in the National Capital Territory, as part of its Animal Health and Welfare Policy 2018.
- This setup would be developed in all the districts of Delhi in order to provide high-end specialized referral clinical support and treatment to the birds.

**5.9 Gangajal Project**

**Context:**
- Giving a major push to develop and enhance Tourism infrastructure in Agra, the Prime Minister Shri Narendra Modi launched a series of development projects worth Rs. 2900 Crores for the Agra city and the adjoining areas.

**Gangajal Project:**
- It aims to bring 140 cusecs of Ganga Water to Agra which will help meet the drinking water demands in the city.
- It will provide Agra with better and more assured water supply, at an estimated cost of Rs. 2880 crores.
- The project was launched in 2005 in collaboration with the Japan International Cooperation Agency and was scheduled to be completed by March 2012 but the project has missed several deadlines.
- Under the Gangajal project, Agra will get 140 cusec water supply per day from Palra headworks.
in Bulandshahr’s Upper Ganga canal.

5.10 Indian Forest Service

Context:
- The Ministry of Personnel, Public Grievances and Pensions has initiated an inter-ministerial consultation note to rename the Indian Forest Service as Indian Forest and Tribal Service. The consultation note also contains the proposal to train the cadre to be more receptive towards tribals and forest dwellers.

Background:
- The renaming is based on the recommendation made by the NCST which highlights the close ties between tribals, the forest and forest ecosystem. Merging forest and tribal welfare administrations will further the participation of ‘tribals’ in forest management. Renaming will also engender greater sensitivity on the forest department’s part towards the needs of ‘tribal’ communities.

Indian Forest Service:
- During the year 1864 the then British India Government started the Imperial Forest Department and appointed Dr. Dietrich Brandis, a German Forest officer Inspector General of Forests in 1866.
- Having recognized the need to have a premier forest service to manage the varied natural resources of the vast country and to organize the affairs of the Imperial Forest Department, Imperial Forest Service was constituted in 1867.
- The subject of “Forestry” was transferred to the “Provincial List” by the Government of India Act, 1935 and subsequently recruitment to the Imperial Forest Service was discontinued.
- The Indian Forest Service, one of the three All India Services, was constituted in the year 1966 under the All India Services Act, 1951 by the Government of India.
- The main mandate of the service is the implementation of the National Forest Policy which envisages scientific management of forests and to exploit them on a sustained basis for primary timber products, among other things.

5.11 KALIA Scheme

Context:
- KALIA scheme, launched by Odisha state government, has completed its first phase of registration.

Key features of Krushak Assistance for Livelihood and Income Augmentation or KALIA Scheme:
- Involves payments to encourage cultivation and associated activities.
- Primary targets are small farmers, cultivators and landless agricultural labourers.
- All farmers will be provided Rs 10,000 per family as assistance for cultivation.
- Each family will get Rs 5,000 separately in the kharif and rabi seasons, for five cropping seasons between 2018-19 and 2021-22.
- Targets 10 lakh landless households, and specifically SC and ST families. They will be supported with a unit cost of Rs 12,500 for activities like goat rearing, mushroom cultivation, beekeeping, poultry farming and fishery.
- A critical trade, dairy production, has deliberately been kept out because keeping a cow is more expensive, while milk production needs to have a collection route or agency that processes and refines this low shelf-life product.
- It will assist the elderly, sick and differently-abled population who are unable to take up cultivation, by providing Rs 10,000 per household per year.
The scheme includes a life insurance cover of Rs 2 lakh and additional personal accident coverage of the same amount for 57 lakh households. Crop loans up to Rs 50,000 are interest-free.

This is also going to be an area-specific scheme in the sense that an input support for a particular trade, say mushroom cultivation, will be provided if it is prevalent throughout that locality so that there is aggregation of produce.

How different will KALIA be from a loan waiver?

Unlike a loan waiver, (through which) banks appease a few farmers, KALIA’s main targets are rural activities as a whole. It will support farming on a small scale, sharecropping, fishing, animal herding, which are not covered under bank loans, but are caught in debt traps set up by local moneylenders. Also, a farm loan waiver will reduce credit available to farmers in the long term, while income support can be used to make a repayment or at least activate a bank account which can then receive a loan.”

5.12 Manipur Peoples (Protection) Bill, 2018

Context:

Manipur state government has decided to oppose the Citizenship (Amendment) Bill, 2018, if there is no clause to protect the indigenous peoples of the North East (NE) region in general, and Manipur in particular.

What's the demand?

The state has submitted a memorandum to Home Minister Rajnath Singh to give President’s assent to the Manipur Peoples (Protection) Bill, 2018. It will protect the interests of people of the State.

Manipur People's Protection Bill, 2018:

- It seeks to regulate the entry and exit of “outsiders” on the lines of the British-era inner-line permit system prevalent in three other north-eastern states — Arunachal Pradesh, Mizoram and Nagaland.
- The bill sets 1951 as the base year to identify locals and prevent an influx of outsiders.

Who are Manipuris and non-Manipuris?

- According to the bill, Manipur people include Meitis, the Pangal Muslims, scheduled tribes as listed under the Constitution in terms of Manipur and all those citizens of India who have been living in Manipur before 1951.
- The rest have been put in the category of non-Manipuris and will have to register themselves within one month of the notification of the law. They will be issued a pass extendable up to six months. While those who have trade licences can get a pass extendable up to five years, which will have to be renewed every year. Any outsider visiting Manipur would need a pass.

Rationale behind the Bill:

- The influx of foreign tourists has increased exponentially in Manipur, thus creating a demographic imbalance in the region. If this was not enough, illegal immigration from Bangladesh, Nepal and Myanmar has also contributed to the crisis. This has created fear among the locals over employment and availability of resources.
- At a time where there already exists stiff competition between the locals and outsiders over jobs, the outsiders mostly settle for low paid work. Hence, locals feel ILP fails to safeguard the interests of the indigenous people.

What is the Inner Line Permit?

- The Inner Line Permit (ILP) is an official travel document issued by the Government of India to grant inward travel of an Indian citizen into a protected area for a limited period.
It is obligatory for Indians residing outside those states to obtain permission prior to entering the protected areas.

- **Currently, the Inner Line Permit is operational in Arunachal Pradesh, Mizoram and Nagaland.** The document has been issued under the Bengal Eastern Frontier Regulation, 1873 and the conditions and restrictions vary from state to state.
- **It can be issued for travel purposes solely.** Visitors are not allowed to purchase property in these regions. However, there might be a different set of rules for long term visitors, though they are not valid for central government employees and security forces.


**Context:**

**The components of the National Action Plan for Drug Demand Reduction (2018-2023) are:**

- **Aim:** employ a multi-pronged strategy involving education, de-addiction and rehabilitation of affected individuals and their families to address the issue.
- **Focus on** preventive education, awareness generation, counselling, treatment and rehabilitation of drug-dependent people, besides training and capacity-building of service providers through the collaborative efforts of the Centre, state and NGOs.
- **Involvement of stakeholders:** Coordination with implementing agencies for controlling the sale of sedatives, painkillers and muscle relaxant drugs, holding awareness generation programmes and checking online sale of drugs by stringent monitoring by the cyber cell are proposed under the Action Plan.
- **Awareness generation** through social, print, digital and online media, and engagement of celebrities, besides strengthening the national toll-free helpline for drug prevention. **The Action Plan calls for persuading principals, directors, vice chancellors of educational institutions to ensure that no drugs are sold within/nearby the campus.**
- **Increase community participation and public cooperation** in the reduction of demand by involving Panchayati Raj institutions, Urban Local Bodies, Nehru Yuva Kendra Sangathan and other local groups like Mahila Mandals, self-help groups etc to tackle the menace of drugs.
- **A steering committee** would be constituted under the chairmanship of the secretary, *Social Justice Ministry*, and with representatives from several other Ministries to monitor the implementation of the Action Plan.

**Drug menace:**
- India is vulnerable to narcotic drug trafficking as it is located between two largest Opium producing regions of the world i.e. **Golden Crescent in the west and Golden Triangle in the east.** Drug trafficking and abuse also pose serious threat to our societies.
- Estimates suggest that there are 40 lakh drug addicts in the country. The most common drugs of abuse are ‘ganja’, ‘hashish’, ‘opium’ and ‘heroin’. The abuse of pharmaceutical preparations like ‘buprenorphine’, codeine based cough syrups and painkillers like ‘proxivon’ has also assumed serious proportions. In certain regions of the country, drug abuse has already become a severe social-economic problem affecting the vulnerable age groups.

**What has the government done in this regard?**
- The Government has taken several policy and other initiatives to deal with drug trafficking problem.
- It constituted **Narco-Coordination Centre (NCORD)** in November, 2016 and revived the scheme of “Financial Assistance to States for Narcotics Control”.

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• In 2017, the government approved new Reward Guidelines with increased quantum of reward for interdiction or seizure of different illicit drugs.

• For effective coordination with foreign countries, India has signed 37 Bilateral Agreements/Memoranda of Understanding.

• Narcotics Control Bureau has been provided funds for developing a new software i.e. Seizure Information Management System (SIMS) which will create a complete online database of drug offences and offenders.

• The government has constituted a fund called “National Fund for Control of Drug Abuse” to meet the expenditure incurred in connection with combating illicit traffic in Narcotic Drugs; rehabilitating addicts, and educating public against drug abuse, etc.

• The government is also conducting National Drug Abuse Survey to measure trends of drug abuse in India through Ministry of Social Justice & Empowerment with the help of National Drug Dependence Treatment Centre of AIIMS.

5.14 New Delhi International Arbitration Centre Bill

Context:

• The Lok Sabha has passed the New Delhi International Arbitration Centre Bill to set up a revamped International Arbitration Centre at New Delhi with an aim to make India the hub of arbitration.

Key features of the Bill include:

• New Delhi International Arbitration Centre (NDIAC): The Bill seeks to provide for the establishment of the NDIAC to conduct arbitration, mediation, and conciliation proceedings. The Bill declares the NDIAC as an institution of national importance.

• International Centre for Alternative Dispute Resolution (ICADR): The ICADR is a registered society to promote the resolution of disputes through alternative dispute resolution methods (such as arbitration and mediation). The Bill seeks to transfer the existing ICADR to the central government.

• Composition: Under the Bill, the NDIAC will consist of seven members including:
  (i) a Chairperson who may be a Judge of the Supreme Court or a High Court, or an eminent person with special knowledge and experience in the conduct or administration of arbitration;
  (ii) two eminent persons having substantial knowledge and experience in institutional arbitration;
  (iii) three ex-officio members, including a nominee from the Ministry of Finance and a Chief Executive Officer (responsible for the day-to-day administration of the NDIAC); and
  (iv) a representative from a recognised body of commerce and industry, appointed as a part-time member, on a rotational basis.

• Term and superannuation: The members of NDIAC will hold office for three years and will be eligible for re-appointment. The retirement age for the Chairperson is 70 years and other members is 67 years.

• Objectives and functions of the NDIAC: The key objectives of the NDIAC include
  (i) promoting research, providing training and organising conferences and seminars in alternative dispute resolution matters;
  (ii) providing facilities and administrative assistance for the conduct of arbitration, mediation and conciliation proceedings;
  (iii) maintaining a panel of accredited professionals to conduct arbitration, mediation and conciliation proceedings.

Key functions of the NDIAC will include:
  (i) facilitating conduct of arbitration and conciliation in a professional, timely and cost-effective manner; and
(ii) promoting studies in the field of alternative dispute resolution.

- **Finance and audit:** The NDIAC will be required to maintain a fund which will be credited with grants received from the central government, fees collected for its activities, and other sources. The accounts of the NDIAC will be audited and certified by the Comptroller and Auditor-General of India.

- **Institutional support:** The Bill specifies that the NDIAC will establish a Chamber of Arbitration which will maintain a permanent panel of arbitrators. Further, the NDIAC may also establish an Arbitration Academy for training arbitrators and conducting research in the area of alternative dispute resolution. The NDIAC may also constitute other committees to administer its functions.

**What is Arbitration?**

- Arbitration is a settlement of dispute between two parties to a contract by a neutral third party i.e. the arbitrator without resorting to court action. The process can be tailored to suit parties’ particular needs.
- Arbitrators can be chosen for their expertise. It is confidential and can be speedier and cheaper than court. There are limited grounds of appeal. Arbitral awards are binding and enforceable through courts.

**Significance of ADR:**

- It is felt that a reliable and responsive alternative dispute resolution system is essential for rapidly developing countries like India. While business disputes need speedy resolution, litigation is the least favoured method for that. The Indian judicial system is marred by delays because of which businesses suffer as disputes are not resolved in a reasonable time period. Therefore, need for alternative dispute resolution processes like negotiation, mediation conciliation and arbitration is felt from time to time.

### 5.15 One family one job scheme

**Context:**

- Sikkim has announced the **One family one job scheme** to provide employment to the youth of Sikkim.

**About the Scheme:**

- One family one job scheme entitles **one government job for every family in the state.**
- **Eligibility:** Only members of those families which do not have a government job at present are eligible for government employment under the scheme.
- The government has announced that the **nature of the job** is not temporary and would be regularised after five years.

**Significance:**

- Sikkim is the first state in the country to launch an exclusive programme which entitles every family in the state with a government job and Sikkim earmarks 70% of its revenues towards salaries for state government employees.

### 5.16 Pahari community

**Why in News?**

- Governor of Jammu and Kashmir has given his approval for the Kashmir Reservation (Amendment) Bill, 2014, providing reservation to the persons belonging to Pahari community of the State. The legislation is aimed at providing job opportunities to the Pahari people residing in backward areas of the State.

**Pahari community:**
Pahari is a linguistic group, comprising both Muslims and Hindus, and is mainly located in Poonch, Rajouri, Kupwara and Baramulla districts.

Because of the remoteness and inaccessibility of the areas of their residence, the Pahari community has historically faced considerable economic distress leading to overall socio-economic backwardness.

5.17 PMAY - U

Context:

- Government has launched the Global Housing Technology Challenge. The challenge is undertaken under the Pradhan Mantri Awas Yojana Urban (PMAY-U).

Key features of the Global Housing Technology Challenge (GHTC) are:

- GHTC aims to fast-track the construction of affordable housing and meet the target of constructing 1.2 crore houses by 2022.
- GHTC focuses on identifying and mainstreaming proven demonstrable technologies for lighthouse projects and spotting potential future technologies for incubation and acceleration support through ASHA (Affordable Sustainable Housing Accelerators) — India.

Objectives:

- To enable adoption of construction techniques for housing that are affordable and takes minimum time as less as three months instead of the conventional three years for construction.
- Bring a paradigm shift in technology transition using large-scale construction under the PMAY-U as an opportunity to get the best available construction technologies across the globe.

Pradhan Mantri Awas Yojana Urban (PMAY-U):

- The Pradhan Mantri Awas Yojana (Urban) Mission is being implemented by the Ministry of Housing and Urban Poverty Alleviation (MoHUPA).
- The Pradhan Mantri Awas Yojana (Urban) Mission seeks to address the housing requirement of urban poor including slum dwellers through following programme components:
  - In-situ Rehabilitation of existing slum dwellers using land as a resource through private participation.
  - Credit Linked Subsidy (Implemented as a Central Sector Scheme).
  - Affordable Housing in Partnership.
  - Subsidy for Beneficiary-led individual house construction/enhancement.

Why is it important?

- Today, while developers in India’s metropolitan cities are sitting on lakhs of unsold residences costing upwards of ₹50 lakh, the country is estimated to have a shortage of nearly 20 million housing units needed by the rural and urban poor, at far lower price points of ₹5-15 lakh.
• The PMAY aims to address this shortfall. With the increase in subsidised loan amount to ₹12 lakh, the scheme is expected to cover a higher proportion of the urban poor. The PMAY will hopefully incentivise India’s construction and realty sector to reduce its traditional obsession with affluent home buyers in the cities.

### 5.18 Polavaram project

#### Context:
- The Andhra Pradesh government has bagged the Central Board of Irrigation and Power (CBIP) award for speedy execution of Polavaram multipurpose project on the Godavari river.
- Andhra Pradesh received the award in the category of “Best Implementation of Water Resources Project” for better planning, implementation and monitoring.

#### Polavaram project:
- Polavaram Project is a multi-purpose irrigation project. The dam across the Godavari River is under construction located in West Godavari District and East Godavari District in Andhra Pradesh state and its reservoir spreads in parts of Chhattisgarh and Orissa States also.
- The project is multipurpose major terminal reservoir project on river Godavari for development of Irrigation, Hydropower and drinking water facilities to East Godavari, Vishakhapatnam, West Godavari and Krishna districts of Andhra Pradesh.
- The Polavaram project was accorded national status in 2014 in the Andhra Pradesh Bifurcation Act and its design was changed.

#### CBIP:
- The Central Board of Irrigation and Power (CBIP) is a Premier Institution set up by the Government of India in the 1927.
- CBIP has been rendering dedicated services to the professional organizations, engineers and individuals in the country related to Power, Water Resources and Renewable Energy Sectors for more than eight decades.

#### Objectives:
- Dissemination of technical knowledge and information through various modes, e.g., publication of journals, manuals, technical reports, guidelines, organizing seminars and conferences and recognition of technical excellence through bestowing awards.
- To provide training to the engineers/professionals.
- To provide consultancy services.
- To provide research and professional excellence.
- To provide linkages to Indian Engineers, Managers and Scientists with their counterparts in other countries and with international organizations.
- To establish a Technical database, technological developments and to provide information services to the professionals.
- Introduction of Latest Technologies.

### 5.19 Pradhan Mantri Rozgar Protsahan Yojana

#### Context:
- The Pradhan Mantri Rozgar Protsahan Yojana (PMRPY), the flagship scheme of the Union Government for employment generation, crossed the milestone of one crore beneficiaries on January 14, 2019.

#### Pradhan Mantri Rozgar Protsahan Yojana:
- The scheme “Pradhan Mantri Rozgar Protsahan Yojana” (PMRPY) was announced in the Budget for 2016-17.
The objective of the scheme is to promote employment generation. The scheme is being implemented by the Ministry of Labour and Employment. Under the scheme employers would be provided an incentive for enhancing employment by reimbursement of the 8.33% EPS contribution made by the employer in respect of new employment. The PMRPY scheme is targeted for workers earning wages upto Rs. 15,000/- per month.

Significance of the scheme:
- The employer is incentivised for increasing the employee base in the establishment through payment of EPF contribution of 12% of wage, which otherwise would have been borne by the employer.
- A large number of workers find jobs in such establishments.
- A direct benefit of the scheme is that these workers have access to social security benefits through Provident Fund, Pension and Death Linked Insurance.

5.20 Prayagraj
Context:
- The Union Home Ministry has approved the proposal of the Uttar Pradesh Government to rename Allahabad as Prayagraj.

Background:
- The city of Allahabad was originally known as Prayag in ancient times. Between 1574 and 1583, the 16th-century Mughal emperor Akbar founded a fort near the confluence of the Ganga and the Yamuna, known as Sangam, as he was impressed with its strategic position.
- Hence, Akbar named the fort and its neighbourhood as Ilahabad, which meant the “Abode of God”, inspired by the religion he had founded, Din-i-Illahi.
- In the later years, Akbar’s grandson Shah Jahan renamed the entire city as Allahabad. However, the area near the Sangam, which is the site of the Kumbh Mela, continued to be called Prayag.

5.21 Punjab Assembly has issued notice for disqualification
Context:
- The Punjab Assembly has issued notice to Sukhpal Singh Khaira, Former rebel AAP leader and MLA from Bholath, for disqualification under the 10th Schedule of the Constitution.

What is the anti-defection law?
- The Tenth Schedule was inserted in the Constitution in 1985 by the 52nd Amendment Act. It lays down the process by which legislators may be disqualified on grounds of defection by the Presiding Officer of a legislature based on a petition by any other member of the House.
- The decision on question as to disqualification on ground of defection is referred to the Chairman or the Speaker of such House, and his decision is final.
- The law applies to both Parliament and state assemblies.

Disqualification:
- If a member of a house belonging to a political party:
  - Voluntarily gives up the membership of his political party, or
  - Votes, or does not vote in the legislature, contrary to the directions of his political party. However, if the member has taken prior permission, or is condoned by the party within 15 days from such voting or abstention, the member shall not be disqualified.
- If an independent candidate joins a political party after the election.
- If a nominated member joins a party six months after he becomes a member of the legislature.
Exceptions under the law:
- Legislators may change their party without the risk of disqualification in certain circumstances. The law allows a party to merge with or into another party provided that at least two-thirds of its legislators are in favour of the merger. In such a scenario, neither the members who decide to merge, nor the ones who stay with the original party will face disqualification.

Decision of the Presiding Officer is subject to judicial review:
- The law initially stated that the decision of the Presiding Officer is not subject to judicial review. This condition was struck down by the Supreme Court in 1992, thereby allowing appeals against the Presiding Officer's decision in the High Court and Supreme Court. However, it held that there may not be any judicial intervention until the Presiding Officer gives his order.

5.22 SAUBHAGYA Scheme

Context:
- Maharashtra has completed the 100% electrification under the central scheme of ‘Saubhagya’ and has illuminated 10,93,614 homes before the stipulated deadline of December 31.
- Under the Saubhagya scheme, the target of 100% electrification of the state was to be achieved by December 31, 2018. However, the State Power Utility (SPU) achieved the target on December 27, 2018 itself.

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

Scope of the Scheme:
- Providing last mile connectivity and electricity connections to all un-electrified households in rural areas.
- Providing Solar Photovoltaic (SPV) based standalone system for un-electrified households located in remote and inaccessible villages / habitations, where grid extension is not feasible or cost effective.
- Providing last mile connectivity and electricity connections to all remaining economically poor un-electrified households in urban areas. Non-poor urban households are excluded from this scheme.
5.23 Suspension of MP's

**Context:**
- Cracking the whip on unruly MPs, Speaker Sumitra Mahajan has suspended 45 Lok Sabha members belonging to the TDP and the AIADMK after they created ruckus in the House and continuously disrupted proceedings for days.
- The action was taken under rule 374A of the Lok Sabha which says they cannot attend the remaining days of the session.

**Provisions in this regard:**
- Among the tools available to the Speaker for ensuring discipline is the power to force a member to withdraw from the House (for the remaining part of the day), or to place him under suspension.
- Rule Number 373 of the Rules of Procedure and Conduct of Business states that in case the Speaker is of the opinion that the conduct of any member is “grossly disorderly”, he or she may direct that member to “withdraw immediately from the House”. The member is required to “do so forthwith”, and stay away from the “remainder of the day’s sitting”.
- The Speaker may invoke Rule 374A in case of “grave disorder occasioned by a member coming into the well of the House or abusing the Rules of the House, persistently and wilfully obstructing its business by shouting slogans or otherwise…”. The member concerned, “on being named by the Speaker, stands automatically suspended from the service of the House for five consecutive sittings or the remainder of the session, whichever is less”.
- While the Speaker is empowered to place a member under suspension, the authority for revocation of this order is not vested in her. It is for the House, if it so desires, to resolve on a motion to revoke the suspension.

**Similar powers to the Chairman of Rajya Sabha:**
- Chairman of the Rajya Sabha is empowered — under Rule Number 255 of its Rule Book — to “direct any member whose conduct is in his opinion grossly disorderly to withdraw immediately” from the House.” “…Any member so ordered to withdraw shall do so forthwith and shall absent himself during the remainder of the day’s meeting.”
- The Chairman may name a member who disregards the authority of the Chair or abuses the rules of the Council by persistently and wilfully obstructing “business. In such a situation, the House may adopt a motion suspending the member from the service of the House for a period not exceeding the remainder of the session. The House may, however, by another motion, terminate the suspension. Unlike the Speaker, the Rajya Sabha Chairman does not have the power to suspend a member.

5.24 The Right of Children to Free and Compulsory Education (Amendment) Act, 2019

**Context:**
- The Right of Children to Free and Compulsory Education (Amendment) Act, 2019 has received the assent of the President of India. The bill mainly seeks to do away with the no-detention policy in schools.
- The legislation is significant as it brings accountability in the elementary education system. The proposal received the support of a majority of state governments.

**RTE amendment Bill- Key features:**
- The Bill seeks to amend the Right to Education (RTE) Act to abolish the “no-detention” policy in schools. Under the current provisions of the Act, no student can be detained up to class VIII.
- As per the amendment, it would be left to the states to decide whether to continue the no-detention policy.
The bill provides for regular examination in classes V and VIII, and if a child fails, the amendment bill grants a provision to give her or him additional opportunity to take a re-examination within two months. Such children will be provided with two-month remedial teaching to perform better in the re-examinations. If the students still do not pass the exam, the state government may decide to detain them.

**Right to Education (RTE) Act:**
- The Right of Children to Free and Compulsory Education Act, 2009 (the Act) provides for free and compulsory education to all children of the age of six to fourteen years.

**What is no detention policy?**
- According to this provision “no child admitted in a school shall be held back in any class”. This translates into automatic promotions to the next class every year until Class VII. Instead of exams, schools are supposed to hold Continuous and Comprehensive Evaluations (CCE) for every child.

**Need for removal of this clause:**
- The provision had attracted criticism with several states and schools complaining that it compromised on academic rigour and learning levels and quality at schools.
- The TSR Subramanian committee for formulation of the National Policy on Education has also suggested that ‘no detention’ policy should be discontinued after Class V. It had recommended restoration of detention provision, remedial coaching and two extra chances to each student such to move to a higher class.
- A sub-committee of the Central Advisory Board of Education also studied the issue closely and recommended a provisional detention clause at Classes V and VIII. In 2013, a parliamentary panel had also asked the ministry to ‘rethink’ on its “policy of automatic promotion up to Class VIII”.
SCIENCE AND TECHNOLOGY

6.1 “Samwad with Students” (SwS)

Context:
- As part of the enhanced outreach programme of Indian Space Research Organization (ISRO), a new platform named “Samwad with Students” (SwS) was launched in Bengaluru.

SwS Initiative:
- ISRO aims to engage youngsters across India to capture their scientific temperament.
- The new conversation mission will inspire students cutting across schools and colleges.
- The first SwS event saw 40 wards and 10 teachers from select schools interact with ISRO Chairman Dr K Sivan at the Anthariksh Bhavan.

6.2 Change 4

Context:
- China on 3 January 2019 successfully landed a spacecraft on the far side of the moon, becoming the first in history to touch the lunar surface unseen from Earth, according to media reports.

Key points:
- The Chang’e-4 lunar probe, named after the mythical Moon Goddess, landed. The China National Space Administration (CNSA) landed the robotic probe — Change's 4 — in the unexplored South Pole-Aitken basin, which is the largest, oldest and deepest crater on the moon’s surface. The probe entered an elliptical path around the moon last weekend, drawing up to 15-kilometre close from the surface.
- Landing on the unexplored region will enable Chang'e-4’s rover to better study the moon because of the lack of electromagnetic interference from Earth.
- The rover is equipped with a low-frequency radio spectrometer to help scientists understand “how the earliest stars were ignited and how our cosmos emerged from darkness after the Big Bang”. Scientists will test whether plants can grow while on the moon.
- The mission is one in a series that underscore the country's ambitious plan to join the space race. Followed by the United States and Russia, China is only the third country to send its own astronauts into space on its own rockets.
- The moon is tidally locked to Earth, rotating at the same rate that it orbits our planet, so the far side - or the "dark side" - is never visible from Earth. Previous spacecraft have seen the far side of the moon but none has landed on it.
- The landing "lifted the mysterious veil" from the far side of the moon, and "opened a new chapter in human lunar exploration", reported Global Times. The mission aims to take detailed measurements of the moon's terrain and mineral composition.
- China now plans to begin fully operating its third space station by 2022. It not only plans to send probes to Mars but also retrieve samples of the Martian surface.
- The feat caps a series of lunar missions China has launched over the past few years as part of its plan to become one of the world’s top three aerospace powers by 2030.
- The nation’s space budget is about $8 billion a year, second only to the US.
- The moon landing comes at a time when tensions between the two powers are at an all-time high, with their economic, technological and military rivalry deepening amid China’s quest for dominance.
6.3 Congenital Central Hypoventilation Syndrome (CCHS)

**Context:**
- An infant in Delhi is suffering from a rare disease.

**What is Congenital Central Hypoventilation Syndrome (CCHS)?**
- CCHS is a disorder of the nervous system in which the cue to breathe is lost when the patient goes to sleep. This results in a lack of oxygen and a build-up of carbon dioxide in the body, which can sometimes turn fatal. **There are less than 1,000 known cases all over the world.**
- Though the name describes the disorder as congenital, some forms of the disease may also be present in adults. In fact, adult onset is far more common than congenital presentation; there have been many adult cases reported in medical journals over the years.
- The disease is also known as Ondine’s Curse. Ondine, a nymph in French mythology, had cursed her unfaithful husband that he would forget to breathe the moment he fell asleep.

**Causes:**
- The mutation of a gene called PHOX2B, which is crucial for the maturation of nerve cells in the body, can cause CCHS.
- It can also be genetically acquired, which is when it is congenital. However, sudden mutation is more common than a transmission of the mutated gene from parent to child.

**Treatment:**
- Treatment typically includes mechanical ventilation or use of a diaphragm pacemaker. People who have been diagnosed as newborns and adequately ventilated throughout childhood may reach the age of 20 to 30 years, and can live independently.

6.4 DNA Technology (Use and Application) Regulation Bill, 2018

**Context:**
- The Lok Sabha has passed the DNA Technology (Use and Application) Regulation Bill, 2018 that allows regulated use of DNA technology to establish the identity of certain defined categories of persons, including offenders, suspects, and undertrials.

**Need for the legislation and its significance:**
- The utility of DNA based technologies for solving crimes, and to identify missing persons, is well recognized across the world. Therefore, the new bill aims to expand the application of DNA-based forensic technologies to support and strengthen the justice delivery system of the country.

**Highlights of the Bill:**
- As per the Bill, national and regional DNA data banks will be set up for maintaining a national database for identification of victims, suspects in cases, undertrials, missing persons and unidentified human remains.
- **Punishment:** According to it, those leaking the DNA profile information to people or entities who are not entitled to have it, will be punished with a jail term of up to three years and a fine of up to Rs. 1 lakh. Similar, punishment has also been provided for those who seek the information on DNA profiles illegally.
- **Usage:** As per the bill, all DNA data, including DNA profiles, DNA samples and records, will only be used for identification of the person and not for “any other purpose”.
- **The bill’s provisions will enable the cross-matching** between persons who have been reported missing on the one hand and unidentified dead bodies found in various parts of the country on the other, and also for establishing the identity of victims in mass disasters.
- **The Bill establishes a DNA Regulatory Board** to accredit the DNA laboratories that analyse DNA samples to establish the identity of an individual.

**Benefits of the Bill:**
By providing for the mandatory accreditation and regulation of DNA laboratories, the Bill seeks to ensure that with the proposed expanded use of this technology in the country. There is also the assurance that the DNA test results are reliable and the data remain protected from misuse or abuse in terms of the privacy rights of our citizens.

DNA technology- significance and concerns:

- DNA analysis is an extremely useful and accurate technology in ascertaining the identity of a person from his/her DNA sample, or establishing biological relationships between individuals.
- A hair sample, or even bloodstains from clothes, from a scene of crime, for example, can be matched with that of a suspect, and it can, in most cases, be conclusively established whether the DNA in the sample belongs to the suspected individual. As a result, DNA technology is being increasingly relied upon in investigations of crime, identification of unidentified bodies, or in determining parentage.
- But information from DNA samples can reveal not just how a person looks, or what their eye colour or skin colour is, but also more intrusive information like their allergies, or susceptibility to diseases. As a result, there is a greater risk of information from DNA analysis getting misused.
- It is expected that the expanded use of DNA technology would result not only in speedier justice delivery but also in increased conviction rates, which at present is only around 30% (NCRB Statistics for 2016).

6.5 International Year Of The Periodic Table

Context:
- To celebrate the 150th anniversary of the organisation of the periodic table, UNESCO has launched the International Year Of The Periodic Table.

Key facts relevant for Prelims:
- Russian scientist Dmitry Mendeleev published the first periodic such table in 1869.
- The table organizes all chemical elements by the number of protons in a given atom and other properties.
- There are seven rows, called periods, and 18 columns, called groups, in the table.
- Elements in the same group share similar properties. Those in the same period have the same number of atomic orbitals.
- Most elements on the table are metals divided into six broad categories – alkali metals, alkaline earths, basic metals, transition metals, lanthanides and actinides. They are located on the left, separated from the non-metals on the right by a zig-zag line.
- Lanthanides and actinides, often called “inner transition metals”, are commonly hived off as a separate section under the main table as including all 30 – including Uranium – would make the table too wide.
- The table is a useful tool for people to derive relationships between the different properties of the elements. It can also help predict the properties of new elements that have yet to be discovered or created.

Who maintains periodic table?
- The International Union of Pure Applied Chemistry (IUPAC) is responsible for maintaining the periodic table.
- IUPAC is an international federation of National Adhering Organizations that represents chemists in individual countries. It is a member of the International Council for Science (ICSU).
- Headquarters of IUPAC is in Zürich, Switzerland.
- Established in 1919 as the successor of the International Congress of Applied Chemistry for the
advancement of chemistry.

- Its members, the National Adhering Organizations, can be national chemistry societies, national academies of sciences, or other bodies representing chemists.
- The IUPAC’s Inter-divisional Committee on Nomenclature and Symbols (IUPAC nomenclature) is the recognized world authority in developing standards for the naming of the chemical elements and compounds.

1001 Inventions:

- UNESCO has also launched its educational initiative, 1001 Inventions: Journeys from Alchemy to Chemistry. Consisting of educational material and science experiments to help young people improve their understanding of chemistry and its numerous uses, the initiative will be brought to schools around the world during 2019.

6.6 NASA’s New Horizons Spacecraft

Context:

- On January 1, NASA’s New Horizons spacecraft became the first explorer to fly past the mysterious object- Ultima Thule, located some 4 billion miles from Earth.
- This is a historic flyby of the farthest, and quite possibly the oldest, cosmic body ever explored by humankind.

Ultima Thule:

- Ultima Thule is located in the Kuiper belt in the outermost regions of the Solar System, beyond the orbit of Neptune.
- It measures approximately 30 km in diameter, and is irregularly shaped.
- Ultima Thule has a reddish color, probably caused by exposure of hydrocarbons to sunlight over billions of years.
- Ultima Thule belongs to a class of Kuiper belt objects called the “cold classicals”, which have nearly circular orbits with low inclinations to the solar plane.

Background:

- New Horizons was launched on 19 January 2006, and has been travelling through space for the past nine years. New Horizon’s core science mission is to map the surfaces of Pluto and Charon, to study Pluto’s atmosphere and to take temperature readings.

6.7 NASA’s OSIRIS-Rex

Context:

- NASA’s OSIRIS-Rex spacecraft has set a new milestone in cosmic exploration by entering orbit around an asteroid, Bennu, the smallest object ever to be circled by a human-made spaceship.

Significance:

- OSIRIS-Rex is the first-ever US mission designed to visit an asteroid and return a sample of its dust back to Earth. The $800 million (roughly Rs. 5,600 crores) unmanned spaceship launched two years ago from Cape Canaveral, Florida and arrived December 3 at its destination, some 70 million miles (110 million kilometres) away.

What next?

- The plan is for OSIRIS-REx to orbit Bennu through mid-February, using a suite of five scientific instruments to map the asteroid in high resolution to help scientists decide precisely where to sample from.
- Then, in 2020, it will reach out with its robotic arm and touch the asteroid in a maneuver Rich Kuhns, OSIRIS-REx program manager with Lockheed Martin Space Systems in Denver,
described as a “gentle high-five.”

- Using a circular device much like a car’s air filter, and a reverse vacuum to stir up and collect dust, the device aims to grab about two ounces (60 grams) of material from the asteroid’s surface, and return it to Earth in 2023.

**About the mission:**

- OSIRIS-Rex stands for **Origins, Spectral Interpretation, Resource Identification, Security-Regolith Explorer**.
- OSIRIS-REx is the third mission in NASA’s New Frontiers program, which previously sent the New Horizons spacecraft zooming by Pluto and the Juno spacecraft into orbit around Jupiter.

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**Why was Bennu chosen?**

- Bennu was selected for the OSIRIS-REx mission from over 500,000 known asteroids, due to it fitting a number of key criteria. These include:

  - **Proximity to Earth:** In order for OSIRIS-REx to reach its destination in a reasonable timeframe, NASA needed to find an asteroid which had a similar orbit to Earth.
  - **Size:** Small asteroids, those less than 200m in diameter, typically spin much faster than larger asteroids, meaning the regolith material can be ejected into space. Bennu is around 500m in diameter, so rotates slowly enough to ensure that the regolith stays on its surface.
  - **Composition:** Bennu is a primitive asteroid, meaning it hasn’t significantly changed since the beginning of the Solar System (over 4 billion years ago). It is also very carbon-rich, meaning it may contain organic molecules, which could have been precursors to life on Earth.
  - **Additionally,** Bennu is of interest as it is a **Potentially Hazardous Asteroid (PHA)**. Every 6 years, Bennu’s orbit brings it within 200,000 miles of the Earth, which means it has a high probability of impacting Earth in the late 22nd Century.

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**6.8 Non-communicable diseases (NCDs)**

**Context:**

- Non-communicable diseases (NCDs) — mainly cardiovascular diseases, chronic respiratory diseases, diabetes and cancer — **continue to be the top killers in the South-East Asia Region**, claiming 8.5 million lives each year, according to the World Health Organisation (WHO).
Background:
- Containing the NCDs has been listed by the WHO as its health goal for this year along with reducing mortality related to air pollution and climate change, global influenza pandemic etc.

Key observations:
- Non-communicable diseases such as diabetes, cancer and heart disease, are collectively responsible for over 70% of all deaths worldwide, or 41 million people. These include 15 million people dying prematurely, aged between 30 and 69.
- One third of these deaths are premature and occur before the age of 70, affecting economically productive individuals.
- The four 'major' NCDs are caused, to a large extent, by four modifiable behavioural risk factors: tobacco use, unhealthy diet, insufficient physical activity and harmful use of alcohol.
- The NCDs disproportionately affect the poor, impoverish families, and place a growing burden on health care systems.

What needs to be done?
- Consuming fibre and whole grains can reduce health risks from non-communicable diseases such as heart disease. Eating fibre-rich foods reduces the incidence of coronary heart disease, stroke, type 2 diabetes and colorectal cancer by 16% to 24%.
- A higher fibre intake is also associated with lower bodyweight, systolic blood pressure and total cholesterol when compared with lower intake.
- Doctors also recommend — eat less and enjoy your food by eating slowly, fill half your plate with fruits and vegetables, avoid oversized portions which causes weight gain, at least half of your grains should be whole grains, limit consumption of food high in trans fats.

What are NCDs?
- Noncommunicable diseases (NCDs), also known as chronic diseases, tend to be of long duration and are the result of a combination of genetic, physiological, environmental and behaviours factors.
- The main types of NCDs are cardiovascular diseases (like heart attacks and stroke), cancers, chronic respiratory diseases (such as chronic obstructive pulmonary disease and asthma) and diabetes.

What are the socioeconomic impacts of NCDs?
- NCDs threaten progress towards the 2030 Agenda for Sustainable Development, which includes a target of reducing premature deaths from NCDs by one-third by 2030.
- Poverty is closely linked with NCDs. The rapid rise in NCDs is predicted to impede poverty reduction initiatives in low-income countries, particularly by increasing household costs associated with health care. Vulnerable and socially disadvantaged people get sicker and die sooner than people of higher social positions, especially because they are at greater risk of being exposed to harmful products, such as tobacco, or unhealthy dietary practices, and have limited access to health services.
- In low-resource settings, health-care costs for NCDs quickly drain household resources. The exorbitant costs of NCDs, including often lengthy and expensive treatment and loss of breadwinners, force millions of people into poverty annually and stifle development.

6.9 One-time financial assistance for Rare diseases

Context:
- Government has announced a ‘one-time financial assistance’ for Rare diseases.
- The standing finance committee has approved a proposal for adding a sub-component under the umbrella scheme of Rashtriya Arogya Nidhi (RAN) for provision of one-time financial assistance to those below threshold poverty line for specified rare diseases which require one-time
What is a rare disease?

- A rare disease, also referred to as an orphan disease, is any disease that affects a small percentage of the population.
- Most rare diseases are genetic, and are present throughout a person’s entire life, even if symptoms do not immediately appear. In Europe a disease or disorder is defined as rare when it affects less than 1 in 2000 citizens.
- Rare diseases are characterised by a wide diversity of symptoms and signs that vary not only from disease to disease but also from patient to patient suffering from the same disease. Relatively common symptoms can hide underlying rare diseases, leading to misdiagnosis.
- The most common rare diseases recorded in India are Haemophilia, Thalassemia, sickle-cell anaemia and primary immuno deficiency in children, auto-immune diseases, Lysosomal storage disorders such as Pompe disease, Hirschsprung disease, Gaucher’s disease, Cystic Fibrosis, Hemangiomas and certain forms of muscular dystrophies.

Need of nationwide policy:

- State has responsibility for providing affordable, accessible and reliable health-care services to every citizen. In fact constitution also mentions importance of health-care services under articles like 21, 38 and 47 and thus state cannot evade this responsibility under the pretext of non-justifiability of articles.
- Given the low volumes at which the drugs needed to treat such diseases would be consumed, pharmaceutical companies have little commercial incentive to produce them. Thus, a nationwide policy on orphan drugs could incentivize these players.
- Even if pharmaceutical companies are incentivized to develop drugs to treat rare diseases, pharmaceutical companies remain beholden to the laws of economics and, given the low demand for orphan drugs, price these drugs as high as they choose to. Hence there has to be regulation of the government in restricting the exorbitant prices of the drugs.
- Although proportion of rare diseases is much less than the other diseases, it does not reduce the importance of the life of person affected by rare diseases. Thus national policy would remove this adverse distinction and would make government committed equally to all people.

### 6.10 Paper Sensor that can detect the freshness of milk

#### Context:

- Scientists at Indian Institute of Technology, Guwahati, have developed a simple paper kit that can test freshness of milk and tell how well it has been pasteurized. Aided with a smart phone app, the kit can help ensure that milk is consumed before it turns too sour.

#### Background:

- Milk being widely consumed food, its safety is of prime concern to consumers. More so because it is highly perishable and prone to action of enzymes and microorganisms inherently present in it. Although pasteurization, freezing and preservation using additives are widely used to prevent spoilage, perishability of milk is still a concern.

#### The new method- how it works?

- A milk enzyme, Alkaline Phosphatase or ALP, is considered an indicator of milk quality because its presence even after pasteurization indicates presence of microbes that may not have been rendered inactive with pasteurization.
- Researchers used ordinary filter paper to prepare the detector. The filter paper was cut into small discs and impregnated with chemical probes that preferentially react with ALP. The ‘probes’ used are antibodies that specifically bind to ALP. When ALP comes into contact with the probe, it
turns white paper disc into a coloured one.

- The colour change on paper discs is then photographed by a smartphone camera and images processed to obtain corresponding colour values. These values are then compared with standard data stored in the phone. Thus not only the presence of ALP could be detected but the amount of it in milk could also be measured.

### 6.11 Project ReWeave

**Context:**
- Microsoft India has launched a new e-commerce platform ‘re-weave.in’ under project ReWeave to help handloom weavers.

**Significance of the e-commerce platform:**
- Connect artisans to the buyers directly enabling them to expand to newer customers and markets.
- Provide a platform to showcase signature collections created by the weaver communities, showcase traditional designs and products created from natural dyes to a broad set of customers.
- Aid in weavers in increasing their income and earning a sustainable livelihood while also reviving traditional forgotten Indian art.

**Project ReWeave:**
- Initiated by Microsoft India (R&D) Pvt. Limited in 2016 as part of its Philanthropies efforts.
- To revive the handloom weaving ecosystem in India.
- Under the initiative, Microsoft is working closely with NGO partner, Chaitanya Bharathi to provide infrastructure, financing and marketing support to help weaver families keep their weaving traditions alive by sustaining livelihoods.

### 6.12 PSLV C-44

**Context:**
- Recently, the Indian Space Research Organization (ISRO) has launched satellites Microsat-R and KalamSat onboard Polar Satellite Launch Vehicle (PSLV) C-44.
- This was also a technology demonstrator of PSLV, as this launch was the first launch done with just 2 strap-on motors and is named as the PSLV-DL, D standing for demonstration.
- It provided an alternative to its normal six strap-on motors (side rocket boosters) on PSLV. This will enable it to carry a slightly higher payload than its Core-Alone version (in which there is no strap on motors).

**Significance of the Mission Microsat-R:**
- Microsat-R is a military imaging satellite, weighing 130 kilograms, was made by Defence Research and Development Organization (DRDO).
- This was launched in low orbit. It is the first time an Indian satellite was being placed by ISRO in a low orbit at an altitude of 274 km.

**KalamSat:**
- ISRO also launched a student satellite, KalamSat, made by Space Kidz India, weighing just 1.26kg.
- KalamSat is the world’s smallest and lightest communication satellite.
- Space Kidz India is an organization dedicated to designing innovative concepts for students in the field of education.

**Fourth Stage (PS4) Usability:**
- ISRO also used this launch as an opportunity to demonstrate the usability of the fourth stage of the rocket after the satellites are ejected into orbit.
• The fourth and final stage of the rocket normally turns into debris after ejecting a satellite.  
• Now any agency that wants to conduct experiments in space can use the fourth stage until it disintegrates naturally. The fourth stage of the rocket will be orbiting in space for six months to a year. ISRO is aiming to use this time-frame to enable agencies to run short time experiments.  
• Kalamsat will be the first to use the fourth stage as an orbital platform.  
• The experiment with Kalamsat will start about 1.5 hours from take-off and will last for about 14 hours. Later duration of experiments with PS4 will be improved gradually.

6.13 Scientists map formation of glaciers at Mercury's poles

Context:
• Scientists have modelled the processes that led to the formation of glaciers at the cratered poles of Mercury, the planet closest to the Sun. The researchers at the University of Maine in the US studied the accumulation and flow of ice on Mercury, and how the glacial deposits on the smallest planet in our solar system compare to those on Earth and Mars. The findings, published in the journal Icarus, add to our understanding of how Mercury’s ice accumulations — estimated to be less than 50 million years old and up to 50 metres thick in places — may have changed over time. Changes in ice sheets serve as climatic indicators, researchers said.

Key findings:
• Analysis of Mercury’s cold-based glaciers, located in the permanently shadowed craters near the poles and visible by Earth-based radar, was funded by NASA, and is part of a study of volatile deposits on the moon. 
• Like the moon, Mercury does not have an atmosphere that produces snow or ice that could account for glaciers at the poles.  
• Simulations by the team suggest that the planet’s ice was deposited — likely the result of a water-rich comet or other impact event — and has remained stable, with little or no flow velocity.  
• That is despite the extreme temperature difference between the permanently shadowed locations of the glaciers on Mercury and the adjacent regions illuminated by the Sun.  
• The researchers reconstructed the shape and outline of past and present ice sheets on Earth and Mars, with findings published in 2002 and 2008, respectively.

Note:
• Mercury is the smallest and innermost planet in the Solar System. Its orbital period around the Sun of 87.97 days is the shortest of all the planets in the Solar System.  
• It is named after the Roman deity Mercury, the messenger of the gods.  
• Like Venus, Mercury orbits the Sun within Earth’s orbit as an inferior planet, and never exceeds 28° away from the Sun when viewed from Earth.  
• This proximity to the Sun means the planet can only be seen near the western or eastern horizon during the early evening or early morning. At this time it may appear as a bright star-like object, but is often far more difficult to observe than Venus.  
• The planet telescopically displays the complete range of phases, similar to Venus and the Moon, as it moves in its inner orbit relative to Earth, which reoccurs over the so-called synodic period approximately every 116 days.

6.14 Starship Hopper
• The private space agency SpaceX has unveiled a spacecraft that will carry humans to Mars and Moon in future.
• The spacecraft is named as “Starship Hopper”. The prototype is 8 meters in diameter.

6.15 Super Blood Wolf Moon

- The Super Blood Wolf Moon, a total Lunar Eclipse, was visible in many parts of the world on 20-21 January 2019.
- It was visible in North America, Central America, and South America. But the total lunar eclipse was not visible in India.
- **Super Blood Wolf Moon** is a lunar eclipse that will last 62 minutes. The moon will appear to be red in color as a result of sunlight scattered and refracted around Earth.
- This super blood moon is called as Super Blood Wolf Moon because in many cultures the first full moon of the year is named as Wolf Moon.

- **Lunar Eclipse**: A lunar eclipse occurs whenever the moon passes through Earth’s shadow, also known as its umbra.
- **Super Moon**: Super Moon occurs when the full moon is at the closest point of its orbit to the Earth, which is also called the perigee. The moon appears brighter and bigger than the usual full moon.
- **Blood Moon**: The moon turns into red color during the height of the eclipse as some light reach it even though the moon is in the shadow of the Earth. Fine particles in the atmosphere like dust scatter the blue component of the solar spectrum.
- **Blue Moon**: When two full moons appear in the same calendar month, the second is termed a “blue moon”.

6.16 Superbug gene

**Context:**
- In a significant find in the global spread of multi-drug resistant (MDR) bacteria, scientists have found a “superbug” gene — first detected in over a decade back — in one of the last “pristine” places on Earth that is some 12,870 km away.
- **Soil samples taken in Svalbard** — a Norwegian archipelago between mainland Norway and the North Pole — have now confirmed the spread of blaNDM-1 (called New Delhi Metallo-beta-lactamase-1) into the High Arctic. Carried in the gut of animals and people, **blaNDM-1 and other ARGs were found in Arctic soils** that were likely spread through the faecal matter of birds, other wildlife and human visitors to the area.

**What is a superbug?**
• A superbug, also called multi-resistant, is a bacterium that carries several resistance genes. These are resistant to multiple antibiotics and are able to survive even after exposure to one or more antibiotics.

What causes them to mutate like that?
• Like any living organism, bacteria can mutate as they multiply. Also like any living organism, bacteria have a strong evolutionary drive to survive. So, over time, a select few will mutate in particular ways that make them resistant to antibiotics. Then, when antibiotics are introduced, only the bacteria that can resist that treatment can survive to multiply further, proliferating the line of drug-resistant bugs.

Why is Antibiotic Resistance a Big Deal?
• The discovery of antibiotics less than a century ago was a turning point in public health that has saved countless lives. Although antibiotic resistance develops naturally with normal bacterial mutation, humans are speeding it up by using antibiotics improperly. According to a research, now, 2 million people a year in the US develop antibiotic-resistant infections, and 23,000 of them die of those infections.

Why is the medical community worried?
• Basically, superbugs are becoming more powerful and widespread than ever. Medical experts are afraid that we’re one step away from deadly, untreatable infections, since the mcr-1 E.coli is resistant to that last-resort antibiotic Colistin. Antibiotic-resistance is passed relatively easily from one bacteria to the next, since it is transmitted by way of loose genetic material that most bacteria have in common.
• The World Health Organization (WHO) is afraid of a post-antibiotic world, where loads of bacteria are superbugs. Already, infections like tuberculosis, gonorrhea, and pneumonia are becoming harder to treat with typical antibiotics.

What Can We Do?
• First step would be to limit antibiotic use. If a patient has a virus, for instance, an antibiotic won’t work, so doctors shouldn’t prescribe antibiotics even if the patient insists. And when patients do need antibiotics, it’s important to make sure they take the full course to kill off every last infection-causing germ. Otherwise, the strong survive, mutate, and spread. As a society, curbing antibiotic use in healthy animals used in human food production is another important step.

6.17 Transiting Exoplanet Survey Satellite (TESS)

Context:
• NASA which launched Transiting Exoplanet Survey Satellite (Tess) for searching exoplanets in April, 2018 has discovered a third small planet outside our solar system.

The New Planet:
• The new planet is named HD 21749b. The newly discovered planet orbits a bright and nearby star which is about 53 light years away in the constellation Reticulum. HD 21749b appears to have the longest orbital period of the three planets so far identified by Tess. The surface of the new planet is hotter than 100 degrees Celsius.

TESS mission:
• The Transiting Exoplanet Survey Satellite (TESS) is a NASA mission that will look for planets orbiting the brightest stars in Earth’s sky. It was led by the Massachusetts Institute of Technology with seed funding from Google.
• The mission will monitor at least 200,000 stars for signs of exoplanets, ranging from Earth-sized rocky worlds to huge gas giant planets. TESS, however, will focus on stars that are 30 to 100 times brighter than those Kepler examined. This will help astronomers better understand the structure of solar systems outside of our Earth, and provide insights into how our own solar
system formed.

- TESS will occupy a never-before-used orbit high above Earth. The elliptical orbit, called P/2, is exactly half of the moon’s orbital period; this means that TESS will orbit Earth every 13.7 days. Its closest point to Earth (67,000 miles or 108,000 kilometers) is about triple the distance of geosynchronous orbit, where most communications satellites operate.
- It will use transit method to detect exoplanets. It watches distant stars for small dips in brightness, which can indicate that planet has passed in front of them. Repeated dips will indicate planet passing in front of its star. This data has to be validated by repeated observations and verified by scientists.

**Significance of the mission:**

- TESS is designed to build on the work of its predecessor, the Kepler space telescope, which discovered the bulk of some 3,700 exoplanets documented during the past 20 years and is running out of fuel.
- NASA expects to pinpoint thousands more previously unknown worlds, perhaps hundreds of them Earth-sized or “super-Earth” sized – no larger than twice as big as our home planet.
- Those are believed the most likely to feature rocky surfaces or oceans and are thus considered the best candidates for life to evolve. Scientists have said they hope TESS will ultimately help catalog at least 100 more rocky exoplanets for further study in what has become one of astronomy’s newest fields of exploration.

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**6.18 UNNATI (UNispace Nano-satellite Assembly and Training by ISRO)**

**Context:**

- National space agency, the Indian Space Research Organisation (ISRO) has launched the UNNATI (UNispace Nano-satellite Assembly and Training by ISRO) programme at the U R Rao Satellite Centre, Bengaluru. UNNATI is a capacity building programme on nanosatellite development.

**UNNATI Programme:**

- The UNNATI Programme is to commemorate the 50th anniversary of the first United Nations Conference on the Exploration and Peaceful Uses of Outer Space (UNISPACE+50).
- UNNATI programme is planned to be conducted by U R Rao Satellite Centre (URSC) of ISRO for 3 years in 3 batches and will target to benefit 90 officials from 45 countries.

**The primary objectives of the programme are:**

- To offer a simplified and increased exposure to satellite fabrication technologies, as part of the UNISPACE initiative.
- To provide theoretical course on satellite technology.
- To provide hands-on training to assemble, integrate and test a low cost, modular nano satellite.

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**6.19 Young Scientist Programme**

**Context:**

- Indian Space Research Organisation (ISRO) has announced Young Scientist Programme.

**Young Scientist Programme:**

- **Aim:** Inculcate and nurture space research fervour in young minds.
- It would be a one month programme. The students will be exposed to the practical experience of building small satellites.
- **Eligibility:** Mostly 8th standard passed out students will be given lecturers and access to research laboratories. 3 students from each of the 29 States and 7 Union Territories will be selected for the
Young Scientist program.

6.20 Yutu-2

Context:
- China has named the lunar rover, successfully deployed to carry out a string of experiments on the far side of the moon, as ‘Yutu-2’. The rover’s touchdown is part of China Chang’e-4 lunar probe.

Key facts:
- It follows the BeiDou Navigation Satellite System — China’s homegrown Global Positioning System that started worldwide service last month.
- The rover has been programmed to launch ground penetration radar that would help map the moon’s inner structures.
- It would also analyse soil and rock samples for minerals, apart from activating a radio telescope to search for possible signals from deep space.

6.21 Zearalenone

What is it?
- Zearalenone is a fungal toxin infesting cereals such as wheat, maize and barley. It attacks crops while they are growing, but can also develop when cereals are stored without being dried fully.

Why in News?
- While numerous studies document this toxin in cereals across the world, no data existed for India until now. This month, a Journal of Food Science study detected zearalenone in wheat, rice, corn and oats from markets in Uttar Pradesh.

Are there any guidelines on its usage?
- The Food Safety and Standards Authority of India does not impose maximum limits for zearalenone, though the European Union (EU) does.

Why worry about this?
- Fungal toxins are commonly found in food, and can be a public health concern. India regulates the levels of some of these, including aflatoxin, deoxynivalenol, ergot and patulin. The first three infest cereals, while patulin is found in apples. Each of these toxins has been associated with disease outbreaks.
- For example, in 1974, a hepatitis outbreak in Rajasthan and Gujarat, which made 398 people sick and killed 106, was linked to aflatoxin in maize. Meanwhile, chronic aflatoxin consumption has been shown to cause liver cancer.
- Given this, the International Agency for Research on Cancer (IARC) classifies aflatoxin as a Group 1 carcinogen, meaning there is enough evidence for its carcinogenicity.
- In zearalenone’s case, there is no strong evidence of toxicity in humans so far, though several research groups are investigating. As a result, the IARC classifies it as a Group 3 carcinogen, which means evidence is not sufficient for an evaluation yet.

How Zearalenone affects?
- Zearalenone behaves like oestrogen, the female sex hormone, and could cause endocrine disturbances in humans. Its nasty effects in animals, such as pigs, are documented. When fed with mouldy corn, pigs develop inflamed vaginas, infertility and other symptoms. This is why countries like Brazil regulate zearalenone levels in animal feed. In humans, the data are fuzzier.
SOCIAL ISSUES AND DEVELOPMENT

7.1 6th ‘Women of India Organic Festival’

Context:
• The Ministry of Women and Child Development is organising the three-day 6th ‘Women of India Organic Festival’ in Chandigarh, to celebrate and promote women farmers and entrepreneurs in the organic sector from the remotest parts of India.

Key facts:
• The Festival will offer on sale the biggest selection of organic products ranging from food, fabrics and furniture to wellness, personal care and solar products.
• It is being organised and sponsored by the Union Ministry of Women & Child Development.

Significance:
• This initiative is a move to benefit women entrepreneurs, and also actively promote organic food and products.
• The Women of India Festival is also intended to highlight the health and environmental advantages of organic goods, provide a platform for women engaged in this economy and encourage the development of sustainable and easily accessible sales outlets for organic producers from remote areas.

National Institute of Public Cooperation and Child Development (NIPCCD):
• It is a premier organization devoted to promotion of voluntary action research, training and documentation in the overall domain of women and child development.
• It was established in New Delhi in 1966 under Societies Registration Act of 1860.
• It functions under the aegis of the Ministry of Women and Child Development.
• Regional Centres at Guwahati (1978), Bangalore (1980), Lucknow (1982) and Indore (2001)
• Institute’s expertise and performance was recognized by UNICEF in 1985 when it awarded the Maurice Pate Award for its outstanding contribution in the field of Child Development.

7.2 Annual Status of Education Report (ASER) 2018

Context:
• The Annual Status of Education Report (ASER) 2018 has been published by education non-profit Pratham. The latest report collected data from 596 districts by surveying 546,527 students from 354,944 homes.
• The survey shows the prevalence of learning deficit and the poverty of basic reading and arithmetic skills among students in Indian schools.

Highlights of the report:
• Indian students, especially those in elementary school (Classes I-VIII), are not learning enough. To cite a metric, only half (50.3%) of all students in Class V can read texts meant for Class II students.
• There seems to have been some improvement in learning levels, especially among students of Class III and Class V, in 2018 compared with those of the previous five years. However, the improvement is not visible at a higher level, for example among students of Class VIII.
• The deficit is across government and private schools. Traditionally, students in private schools have fared better than their government school counterparts, but that’s a relative
situation. For example, while 40% of Class VIII students in government schools can do simple division, the figure is 54.2% in private schools.

- However, there is gradual improvement in some segments and in some states. The reading ability among Class V students in Kerala jumped 10 percentage points in 2018 from that in 2016. In Himachal Pradesh, the growth is nearly 8 percentage points and in Chhattisgarh and Odisha it is around 7 percentage points between 2016 and 2018.

- While 30.9% of students in the 6-14 age group were in private schools in 2018, the figure was 30.6% in 2016 and 30.8% in 2014. This is less than a percentage point growth since 2014.

Concerns over the poor quality of education and its effects on the workforce of the country:

- This poor learning outcome in India is despite the Right to Education (RTE) Act having been in force since April 2010 making eight years of education compulsory for children and the Centre floating schemes such as “Padhe Bharat Badhe Bharat”, apart from states’ efforts.

- Access to elementary (classes I-VIII) schooling is almost universal and the number of children out of schools is below 4%, but a quality deficit, that too for more than a decade, raises questions about the priorities of governments at the central and state levels.

- Last year, the World Bank said Indians born today are likely to be just 44% productive as workers, way below their Asian peers.

Why be concerned about quality of education?

- India’s demographic dividend depends on the learning level of students. The quality of education has a direct bearing on any economy. With some 240 million students or nearly 20% of the Indian population in school, their quality of learning or lack of it assumes significance for the competitiveness of the country. It has an impact on the quality of life, efficiency at the workplace, and labour productivity issues.

Way ahead:

- It is a long time to have only awareness, and a quantum jump in the education sector is the need of the hour. As the problem has now been diagnosed and public advocacy has got the momentum, the governments and civil society need to focus on three aspects—a bigger spending on education, maybe 6% of GDP instead of the present 2.7%, political willingness to improve education, and a drastic change in the quality of teacher education.

7.3 Dard Aryan tribe of Ladakh

- Dard Aryan tribe of Ladakh has requested the central government to intervene to protect their culture and legacy.

- Dard Aryan — believed to be the original descendants of ‘pure Aryan race’ — tribe is known for its liberal customs and ornate costumes. Many researchers believe that the ‘Aryans of Ladakh’ or the ‘Brokpas’ were a part of Alexander’s army and had come to the region over 2,000 years ago.

- They live in the villages of Dha and Hanu (commonly called as Dhahanu), Darchik, and Gahanu - situated 163km southwest of Leh, the administrative capital of Ladakh.

- The rich heritage of the Dard Aryans is under threat due to rapid modernization, migration and religious conversion.

- The ‘Dard’ is derived from a Sanskrit word, ‘Daradas’, which refers to people who live on hillsides.

- Article 46 of the constitution of India the State shall promote with special care the educational and economic interests of the weaker sections of the people, and, in particular, of the Scheduled Castes and the Scheduled Tribes, and shall protect them from social injustice and all forms of exploitation.
7.4 Devadasi system

Context:

- Few recent studies have found that the practice of Devadasi system of dedicating young girls to temples as an offering to appease the gods persists not just in Karnataka, but has also spread to neighbouring Goa.
- More than thirty-six years after the Karnataka Devadasis (Prohibition of Dedication) Act of 1982 was passed, the State government is yet to issue the rules for administering the law.

Concerns- highlights of the study:

- **Vulnerable population:** Special children, with physical or mental disabilities, are more vulnerable to be dedicated as devadasis. Girls from socio-economically marginalised communities continued to be victims of the custom, and thereafter were forced into the commercial sex racket.
- **The devadasi system continues to receive customary sanction** from families and communities.
- **Reporting of cases pertaining to the custom under the Karnataka law is very low,** with only four cases filed between 2011 and 2017. The law is used sparingly, and focuses on prosecution (including of the victims themselves) with no framework for rehabilitation.
- **Loopholes:** Despite sufficient evidence of the prevalence of the practice and its link to sexual exploitation, recent legislations such as the Protection of Children from Sexual Offences (POCSO) Act 2012, and Juvenile Justice (JJ) Act of 2015 have not made any reference to it as a form of sexual exploitation of children. Dedicated children are also not explicitly recognised as children in need of care and protection under JJ Act, despite the involvement of family and relatives in their sexual exploitation.
- **India’s extant immoral trafficking prevention law or the proposed Trafficking of Persons (Prevention, Protection and Rehabilitation) Bill 2018, also do not recognise these dedicated girls as victims of trafficking for sexual purposes.** The State’s failure to enhance livelihood sources for weaker sections of society fuels the continuation of the practice.

What is Devadasi system?

- Devadasi system is a religious practice whereby parents marry a daughter to a deity or a temple. The marriage usually occurs before the girl reaches puberty. In recent decades, the practice has been used to push young girls into prostitution. While various state governments have enacted laws to stop such practices, the tradition remains entrenched in some parts of the country, especially some southern states.

Laws prohibiting its practice:

- The practice of Devadasi system in any form is in total contravention of the provisions of Section 370 and 370A as amended through Criminal Law (Amendment) Act, 2013 as well as Section 372 of Indian Penal Code. It is also against Immoral Traffic (Prevention) Act.

7.5 Hunar Haats

Context:

- Finance Minister Arun Jaitley recently inaugurated Hunar Haat organised by Minority Affairs Ministry at State Emporium Complex in New Delhi.

Hunar Haats:

- Hunar Haats are organised by Ministry of Minority Affairs under USTTAD (Upgrading the Skills & Training in Traditional Arts/Crafts for Development) scheme.
- The USTTAD scheme aims at preserving & promoting the rich heritage of the traditional arts & crafts of the Minority communities. This is one of the flagship programmes of the Ministry.
- Hunar Haats have become a successful mission to provide employment and income generation opportunities with platforms for marketing the products of master artisans, craftsmen and
culinary experts belonging to the minority communities.

- It envisages at boosting the skill of craftsmen, weavers and artisans who are already engaged in the traditional ancestral work.

### 7.6 Jiban Sampark project

**Context:**
- Odisha has launched **Jiban Sampark project** for the welfare of the Particularly Vulnerable Tribal Groups.

**Key features:**
- The Project is being undertaken in association with UNICEF.
- It aims to **generate awareness among Particularly Vulnerable Tribal Groups (PVTG)** in **Odisha** on various development and welfare initiatives of State Government, especially on women and child welfare.
- **The focus areas of the Project** are skill development, empowering communities, cooperation and innovation among the groups.

‘Particularly Vulnerable Tribal Groups (PVTGs)’:
- PVTGs are more vulnerable among the tribal groups. In 1975, the Government of India initiated to identify the most vulnerable tribal groups as a separate category called PVTGs and declared 52 such groups, while in 1993 an additional 23 groups were added to the category, making it a total of 75 PVTGs out of 705 Scheduled Tribes, spread over 17 states and one Union Territory (UT), in the country (2011 census).
- Among the 75 listed PVTG’s the highest number are found in Odisha (13), followed by Andhra Pradesh (12).

### 7.7 Lead and Monosodium Glutamate in Noodles

**Context:**
- The Supreme Court of India has lifted a stay on criminal proceedings against Nestle over the alleged presence of lead and MSG or monosodium glutamate in popular noodles.
- **National Consumer Disputes Redressal Commission (NCDRC)** will now go-ahead with a class action suit brought against Maggi noodle makers Nestle.

**What’s the issue?**
- The apex court had allowed the case against Nestle to reopen after the Swiss food giant had admitted the presence of toxic ingredients in its noodles during a court hearing.
- Nestle’s lawyers have admitted that toxic elements like lead and MSG are found in its sample tests conducted by CFTRI (Central Food Technological Research Institute), Mysuru. However, the company has argued that the lead was within the permissible limit.

**Effects of lead and MSG on health:**

**Lead:**
- According to the World Health Organisation (WHO), lead is a cumulative toxicant that affects multiple body systems, including your liver and kidneys in particular.
- It is especially harmful to infant and pregnant women as it can cause damage to the central nervous system in children.
- Since lead is a heavy metal it can get stored in the teeth and bones, where it accumulates over time. In pregnant women, prolonged exposure to lead can result in miscarriage, prematurity, low birth weight, etc.

**Monosodium glutamate:**
- MSG, short for Monosodium glutamate, is an amino acid found in your body and most foods. It
MSG is a flavour enhancer commonly added to Chinese food, canned vegetables, soups, and processed meats.  
- When consumed in excess, it can cause several health issues, including a headache, nausea, sweating, weakness, chest pain, tingling or burning in the face as well as neck and other areas. It is claimed that MSG can cause asthma and even brain damage.
- MSG may cause adverse symptoms in some people, including a condition called Chinese restaurant syndrome or MSG symptom complex. However, there is no definitive evidence that MSG is solely responsible for causing these symptoms.

NCDRC:
- The National Consumer Disputes Redressal Commission (NCDRC), India is a quasi-judicial commission in India which was set up in 1988 under the Consumer Protection Act of 1986. The commission is headed by a sitting or retired judge of the Supreme Court of India.

Statutory provisions:
- **Section 21 of Consumer Protection Act, 1986** posits that the National Consumer shall have jurisdiction to entertain a complaint valued more than one crore and also have Appellate and Revisional jurisdiction from the orders of State Commissions or the District fora as the case may be.
- **Section 23 of Consumer Protection Act, 1986**, provides that any person aggrieved by an order of NCDRC, may prefer an Appeal against such order to Supreme Court of India within a period of 30 days.

### 7.8 Menstrual Hygiene Scheme

**Context:**
- To address the need of menstrual hygiene among adolescent girls residing primarily in rural areas, Government of India is supporting the Menstrual Hygiene Scheme.

**Menstrual Hygiene Scheme**
- Funds are provided to States/UTs through National Health Mission for decentralized procurement of sanitary napkins packs for provision primarily to rural adolescent girls at subsidized rates as per proposals received from the States and UTs in their Programme Implementation Plans.

**This scheme is encompassing the following:**
- Increasing awareness among adolescent girls on Menstrual Hygiene
- Improving access to and use of high quality sanitary napkins by adolescent girls in rural areas.
- Ensuring safe disposal of Sanitary Napkins in an environmentally friendly manner.
- Provision of funds to ASHAs to hold monthly meeting with adolescents to discuss issues related to menstrual hygiene.

**Information Education and Communication (IEC) Material Developed:**
- A range of IEC material has been developed, using a 360 degree approach to create awareness among adolescent girls about safe & hygienic menstrual health practices including audio, video and reading materials for adolescent girls and job-aids for ASHAs and other field level functionaries for communicating with adolescent girls.
- ASHAs across the country are trained and play a significant role in promotion of use and distribution of the sanitary napkins.
- **Department of Health Research, under the Ministry of Health, is involved in assessment of all newer, alternative, environment friendly menstrual hygiene products to look into their safety and acceptability features.**

**Accredited Social Health Activist (ASHA)**
- One of the key components of the National Rural Health Mission is to provide every village in
the country with a trained female community health activist ASHA.

- Selected from the village itself and accountable to it, the ASHA will be trained to work as an interface between the community and the public health system.

**Other Information of Menstral Hygiene Scheme –**

- The Ministry of Health and Family Welfare has been implementing this scheme for promotion of menstrual hygiene among adolescent girls in the **age group of 10-19 years** primarily in rural areas as part of the **Rashtriya Kishor Swasthya Karyakram**.

### 7.9 Nari Shakti: Hindi Word of the Year 2018

**Context:**

- The word Nari Shakti is chosen as the word of the Year 2018 by the Oxford dictionaries.

**Why was Nari Shakti chosen?**

- Large spike in the use of word Nari Shakti in March 2018 around the Government of India’s Nari Shakti Puraskar.
- Supreme Court also upheld Nari Shakti’s prominence in 2018 with its two important decisions. One was a ban on ‘triple-talaq’ and second, the taking down of a rule that disallowed menstrual women entry to the Sabarimala temple in Kerala.

### 7.10 National Girl Child Day (NGCD)

**Context:**

- **National Girl Child Day (NGCD)** was observed on **24th January** with objectives of **generating awareness** on the issue of declining Child Sex Ratio (CSR) and create a positive environment around valuing the girl child. The programme also observed **anniversary of Beti Bachao Beti Padhao (BBBP) Scheme**. National Girl Child Day was first initiated in 2008.

**Theme:** “Empowering Girls for a Brighter Tomorrow”.

**Objectives:**

- To increase the consciousness of the people and offer new opportunities to the girl child in the society.
- To remove all the inequalities faced by the girl child.
- To ensure that the girl child should get all their human rights, respect and value in the country.
- To work regarding gender discrimination, to educate people.

**BBBP:**

- Launched in January, 2015 at Panipat in Haryana. All India Expansion of BBBP covering all 640 districts (as per Census 2011) was launched at Jhunjhunu, Rajasthan on 8th March 2018.
- **It is a tri-ministerial effort** of Ministries of Women and Child Development, Health & Family Welfare and Human Resource Development.
- It is a **Central Sector Scheme** with 100% financial assistance for District level component and the fund are directly released to the DC/DM’s account for smooth operation of the Scheme.
- **Main Objective of the scheme** is to address the declining Child Sex Ratio (CSR) and related issues of empowerment of women over a life-cycle continuum. The specific objectives of the scheme include preventing gender biased sex selective elimination; ensuring survival and protection of the girl child and ensuring education and participation of the girl child.

**Implementation:**

- At the Central level, Ministry of Women and Child Development is the nodal ministry for the programme and National Task Force headed by Secretary, MWCD with the representation of Partner Ministry and other nominated members.
- At the State level, Chief Secretaries heads the State Task Force (STF) with representation of
Department of WCD, Health and Education to monitor the implementation of the scheme.

- The District Collectors/Deputy Commissioners (DCs) lead and coordinate action of all departments for implementation of BBBP at the District level.

### 7.11 National Social Assistance Programme (NSAP)

**Context:**

- The Rural Development Ministry has proposed to bring in the following changes in monthly pensions under the National Social Assistance Programme (NSAP):
  1. For the elderly poor, disabled and widows pensions are to be increased from the current ₹200 to ₹800.
  2. For those above the age of 80, the proposal is to increase the pension from ₹500 to ₹1,200 a month.

**What next?**

- The Ministry has submitted the proposal, which would have an additional annual cost implication of ₹18,000 crore, to the Finance Ministry to be considered for inclusion in the interim Budget to be presented on February 1.

**National Social Assistance Programme (NSAP):**

- The NSAP is a Centrally Sponsored Scheme under the Ministry of Rural Development. It came into effect from 15th August, 1995.
- It represents a significant step towards the fulfillment of the DPSP in Article 41 of the Constitution. In particular, Article 41 of the Constitution of India directs the State to provide public assistance to its citizens in case of unemployment, old age, sickness and disablement and in other cases of undeserved want within the limit of its economic capacity and development.
- It aims to provide financial assistance to the elderly, widows and persons with disabilities in the form of social pensions.
- **Coverage:** It currently covers more than three crore people who are below the poverty line (BPL), including about 80 lakh widows, 10 lakh disabled and 2.2 crore elderly.

**Presently NSAP comprises of five schemes, namely:**

- Indira Gandhi National Old Age Pension Scheme (IGNOAPS).
- Indira Gandhi National Widow Pension Scheme (IGNWPS).
- Indira Gandhi National Disability Pension Scheme (IGNDPS).
- National Family Benefit Scheme (NFBS).
- Annapurna

### 7.12 SC/ST Act

**Context:**

- Supreme Court has refused to stay amendments to SC/ST Act.

**What’s the issue?**

- In March 2018, Supreme Court diluted the stringent provisions of SC/ST Act (Subhash Kashinath Mahajan v. State of Maharashtra).
- The verdict saw a huge backlash across the country. The government filed a review petition in the Supreme Court and subsequently amended the 1989 Act back to its original form.
- Following this, several petitions were filed challenging the amendments.

**Guidelines issued by the Supreme Court and rationale behind it:**

- Supreme court gave the judgement on the pretext that Innocents cannot be terrorised by the provisions of the SC/ST Act and their fundamental rights need to be protected.
The court said that public servants could be arrested only with the written permission of their appointing authority, while in the case of private employees, the Senior Superintendent of Police concerned should allow it.

A preliminary inquiry should be conducted before the FIR was registered to check if the case fell within the ambit of the Act, and whether it was frivolous or motivated, the court ruled.

Why this decision?
- The court referred to the National Crime Records Bureau (NCRB) data for 2015, which said that closure reports had been filed in 15-16 percent of the complaints under the Act. Over 75% of such cases taken up by the courts had resulted in acquittals/ withdrawal or compounding of the cases.
- Therefore, there was a need to safeguard innocent citizens against false implication and unnecessary arrest for which there is no sanction under the law.

What the Court missed?
- Article 338 stipulates that governments should consult the “National Commission for SC” on all major policy matters affecting Scheduled Castes.
- Similarly, article 338 A mandates all major policy decision affecting STs to be taken in consultation with “National Commission for Scheduled Tribes”.
- Considering this, Supreme Court is also bound to hear these commissions before pronouncements that are likely to impact SC/STs on a whole. However, while issuing guidelines, the court has not taken views of these stakeholders.

The government decided to retain original provisions because of the following reasons:
- There had been no decrease in the atrocities committed on SC/ST people despite the laws meant to protect their civil rights.
- The sad state of affairs was despite the existence of 195 special courts across 14 States to exclusively try Prevention of Atrocities (PoA) cases.

Figures and facts:
- Cases registered: As per National Crime Records Bureau statistics, there is no decrease in the crimes against SC/ST people. The number of cases registered under the PoA in 2014 was 47,124; 44839 in 2015 and 47,338 in 2016.
- Conviction rate: In 2014, 28.8% of the cases were convicted. The acquittal was 71.2% and pendency of cases 85.3%. The next year saw 25.8% convictions, 74.2% acquittal and 87.3% pendency. In 2016, the convictions was 24.9%, acquittal 75.1% and pendency 89.3%.

The Amendment Bill seeks to insert three new clauses after Section 18 of the original Act:
- The first stipulates that for the purposes of the Act, “preliminary enquiry shall not be required for registration of a First Information Report against any person.”
- The second stipulates that the arrest of a person accused of having committed an offence under the Act would not require any approval.
- The third says that the provisions of Section 438 of the Code of Criminal Procedure — which deals with anticipatory bail — shall not apply to a case under this Act, “notwithstanding any judgment or order of any Court.”

Way ahead:
- The amendments to the Scheduled Castes and Scheduled Tribes (Prevention of Atrocities) Act, 2018 is a move in the right direction. However, no matter how strong a piece of legislation is, all will depend on how well it is implemented.
- If the implementing agency does not do its bit then the legislative effort would not be successful in the long run. The administrative set up, which includes police machinery, investigating agencies and judiciary, has to work together to effectively implement such a law.
7.13 Section 126 of RP Act, 1951

Context:
- A Committee constituted to review and suggest modifications and changes in the provisions of the Section 126 and other sections of the RP Act 1951 and provisions of Model Code of Conduct has submitted its report. The panel was headed by senior deputy election commissioner Umesh Sinha.

What Section 126 of RP Act, 1951 states?
- Section 126 of the RP Act prohibits displaying any election matter by means, inter alia, of television or similar apparatus, during the period of 48 hours before the hour fixed for conclusion of poll in a constituency.
- “Election matter” has been defined in that Section as any matter intended or calculated to influence or affect the result of an election.
- The provision prohibits conduct of Exit poll and dissemination of their results during the period mentioned therein, in the hour fixed for commencement of polls in the first phase and half hour after the time fixed for close of poll for the last phase in all the States.
- Violation of the provisions of Section 126 is punishable with imprisonment upto a period of two years, or with fine or both.

What has been suggested?
- Internet service providers and social media companies should take down content violating the 48-hour ban on campaigning prior to polling, instantly and latest within 3 hours of EC issuing such a direction.
- Amend Section 126(1) of R P Act to impose the “campaign silence period” on print, electronic media and intermediaries. The definition of intermediaries, as per Section 2(w) of the Information Technology Act, includes telecom service providers, internet service providers, web-hosting service providers, search engines, etc.
- Bring in changes in the model code of conduct to ensure that parties release their manifesto at least 72 hours prior to polling (or 72 hours prior to polling for first phase in a multi-phase election).
- Star campaigners should desist from addressing press conferences or giving interviews on election matters during silence period. Also, in a multi-phased election, there should be no direct or indirect reference seeking support for parties/candidates in constituencies observing silence period.
- Intermediaries should ensure that their platforms are not misused to vitiate free and fair polls. This would include a notification mechanism by which EC may notify the platform of potential violations of Section 126 of R P Act.
- While EC will appoint an officer to liaise with the intermediaries, the latter should open a special grievance redressal channel for EC and have a dedicated team during election period to interface with and take quick action on receipt of EC order to take down or disable content in violation of R P Act.
- Intermediaries should report to the Commission on measures taken to prevent abuse of their platforms, including generating publicly-available action taken reports. All political advertisements may be clearly labelled as such and be pre-approved by a EC-appointed content monitoring committee.
- The intermediaries would also need to maintain a repository of political advertisements with information on their sponsors, expenditure and targeted reach.

Significance and implications:
- The recommendations made by the Committee, when implemented will help in minimizing the possible interference of activities which aim at indirectly influencing voters during the valuable
silence period of 48 hours provided to them.

Way ahead:
- The task of maintaining campaign silence during last 48 hours before the conclusion of polling is becoming increasingly onerous in the light of the increasing influence of digital media. So, apart from the regulation by law and ECI instructions, the resolve, proactive support and sustained effort by all stake holders is necessary to contain the evil impact.

7.14 Web- Wonder Women

Context:
- The Ministry of Women and Child Development, Government of India has launched an online campaign Web- Wonder Women to discover and celebrate the exceptional achievements of women, who have been driving positive agenda of social change via social media.

About the Campaign:
- The Campaign has been launched by the Ministry of Women and Child Development, Government of India in association with the NGO Breakthrough and Twitter India.
- Through the campaign, the Ministry aims to recognize the fortitude of Indian women stalwarts from across the globe who have used the power of social media to run positive & niche campaigns to steer a change in society. The Campaign is aimed at encouraging, recognizing and acknowledging the efforts of these meritorious Women.
- Selection: Based on the nominations received from a large number of categories including Health, Media, Literature, Art, Sports, Environmental protection, fashion, the entries would be shortlisted. Then the shortlisted entries will be open for public voting on Twitter. The finalists would then be selected by the panel of judges.

7.15 Womaniya

What is it?
- It is an initiative launched by the Government eMarketplace (GeM) to enable women entrepreneurs and self-help groups to sell different products at the platform.

Key features of the initiative:
- The initiative – Womaniya on GeM – seeks to develop women entrepreneurship on the margins of society to achieve gender-inclusive economic growth.
- The initiative would enable women entrepreneurs and women self-help groups to sell handicrafts and handloom, jute and coir products, home décor and office furnishings, directly to various government ministries, departments and institutions.

Significance and the need for such initiatives:
- Nearly 80% women-owned establishments in India are self-financed and more than 60 percent of 8 million units are owned and led by women entrepreneurs from socially-challenged sections.
- Since women tend to invest up to 90% of their earnings back in their families to provide better nutrition, health care and education to their children, their economic empowerment is essential for poverty alleviation which would be made possible through Womaniya initiative.
- Womaniya on GeM will address goals and objectives under United Nations Sustainable Development Goal 5: Achieve gender equality and empower all women and girls.

GeM:
- It is an online marketplace to facilitate procurement of goods and services by various Ministries and agencies of the Government.
- The platform offers online, end to end solution for procurement of commonly used goods and services for all central government departments and state governments, public sector units and affiliated bodies.
It aims to enhance transparency, efficiency and speed in public procurement of goods and services and eliminate corruption.

Government e Marketplace is a 100% government owned company setup under the aegis of Union Ministry of Commerce and Industry for procurement of common use goods and services by Government ministries, departments and CPSEs.

### 7.16 Women’s Wall or Vanitha Mathil

**Context:**
- Kerala government had on January 1st organised the Women’s Wall or Vanitha Mathil to “protect renaissance values.

**What is it?**
- Around thirty lakh women formed a human chain across the National Highway from Kasargod to Thiruvananthapuram, around 620-kilometre long, extending their support to the state government’s resolve to implement the Supreme Court’s verdict allowing women of all ages access to Sabarimala and to protect the secular and progressive values of Kerala.
- Organised by the government and supported by various social organisations having links with the renaissance movement, the Women’s Wall is an attempt by the government to defend the state from communal forces.
ECOLOGY

8.1 10 global health threats - WHO

Context:
- The World Health Organisation (WHO) list of **10 global health threats** which demand immediate attention from WHO and health partners in 2019 has been released. According to the WHO, unless steps are taken to address these threats millions of lives are at risk.

Here are the **10 health issues that demand urgent attention from WHO and partners in 2019**.

- Air pollution and climate change.
- Non-communicable diseases.
- Global influenza pandemic.
- Fragile and vulnerable settings: More than 22% of the world population lives in places where protracted crisis (through a combination of challenges such as drought, famine, conflict and population displacement) and weak health services leave people without access to basic care.
- Antimicrobial resistance.
- Ebola and other high-threat pathogens.
- Weak primary health care.
- Vaccine hesitancy: Vaccination is one of the most cost-effective ways of avoiding disease, however, the reluctance or refusal to vaccinate despite the availability of vaccines, threatens to reverse progress made in tackling vaccine-preventable diseases.
- Dengue
- HIV

Steps to address them:
- WHO's new 5-year strategic plan, the 13th General Programme of Work, aims to address these and other threats. Its plan focuses on a triple billion target that includes ensuring 1 billion more people benefit from access to universal health coverage, 1 billion more people being protected from health emergencies and 1 billion more people enjoy better health and well-being.

8.2 Alliance to End Plastic Waste (AEPW)

Context:
- An alliance of global companies has launched a new organisation- **AEPW**- to help eliminate plastic waste, especially in the ocean.

Alliance to End Plastic Waste (AEPW):
- The Alliance to End Plastic Waste (AEPW), comprising **about 30 companies**, pledged over $1 billion to eliminate plastic waste across the world. They aim to invest $1.5 billion over the next five years for the same.
- The alliance is designed as a **non-profit organization**. It includes companies from across North and South America, Europe, Asia, Southeast Asia, Africa as well as the Middle East are part of the Alliance.
- The **aim is to** develop solutions to mitigate plastic pollution and promote a circular economy by utilising used plastics.
- **Member companies include** those that make, use, sell, process, collect and recycle plastics, as well as chemical and plastic manufacturers, consumer goods companies, retailers, converters, and waste management companies, also called the plastics value chain. From India, Reliance Industries will advance efforts towards a sustainable future.

Significance:
- Plastic waste management is a complex and serious global challenge that calls for swift action and strong leadership. The issue of plastic waste is seen and felt all over the world. It must be
addressed. This new alliance is the most comprehensive effort to date to end plastic waste in the environment.

Way ahead:
- Success will require collaboration and coordinated efforts across many sectors – some that create near-term progress and others that require major investments with longer timelines.
- Addressing plastic waste in the environment and developing a circular economy of plastics requires the participation of everyone across the entire value chain and the long term commitment of businesses, governments, and communities.

8.3 Arunachal govt declares Pakke Hornbill Fest as ‘state festival’

Context:
- The government of Arunachal Pradesh has declared the Pakke Paga Hornbill Festival (PPHF) – the state’s only conservation festival, as a “state festival”.

Great Indian Hornbill:
- The great hornbill is long-lived, living for nearly 50 years in captivity. It is predominantly fruit eating, but is an opportunist and preys on small mammals, reptiles and birds.
- IUCN status: Vulnerable (uplisted from Near Threatened in 2018).
- It is also listed in Appendix I of CITES.

8.4 Climate Change Performance Index (CCPI)

Context:
- The 2019 edition of the Climate Change Performance Index (CCPI) has been released.

CCPI:
- The Climate Change Performance Index (CCPI) is an instrument covering 58 countries and supposed to enhance transparency in international climate politics.
- Its aim is to encourage political and social pressure on those countries which have, up to now, failed to take ambitious actions on climate protection as well as to highlight countries with best-
practice climate policies.

- Evaluation: On the basis of standardised criteria, the index evaluates and compares the climate protection performance of 58 countries that are, together, responsible for more than 90% of global energy-related CO2 emissions. 80% of the evaluation is based on objective indicators of emissions trend and emissions level. 20% of the index results are built upon national and international climate policy assessments by more than 200 experts from the respective countries.

Highlights of the report:

- Only few countries have started working towards limiting global warming below 2°C or even at 1.5°C.
- Globally, Sweden is in top position, followed by Morocco and Lithuania in the CCPI 2019.
- The bottoms five in the list are Saudi Arabia, U.S., Iran, South Korea and Taiwan.
- India ranks 11th in this year’s CCPI, improving its standing by three places compared to the previous edition.

8.5 Convention on Biological Diversity (CBD)

Context:

- India recently submitted its Sixth National Report to the Convention on Biological Diversity (CBD).
- India is among the first five countries in the world, the first in Asia and the first among the biodiversity-rich megadiverse countries to have submitted the report.

Background:

- The submission of national reports is a mandatory obligation on parties to international treaties, including the CBD. As a responsible nation, India has never reneged on its international commitments and has earlier submitted on time five national reports to the CBD.

Highlights of the report:

- The report provides an update of progress in achievement of 12 National Biodiversity Targets (NBT) developed under the convention process in line with the 20 global Aichi biodiversity targets.
- The report highlights that while India has exceeded/ overachieved two NBTs, it is on track to achieve eight NBTs and with respect to two remaining NBTs, the country is striving to meet the targets by the stipulated time of 2020.
- According to the report, India has exceeded the terrestrial component of 17% of Aichi target 11, and 20% of corresponding NBT relating to areas under biodiversity management.
- Also, India has been investing a huge amount on biodiversity directly or indirectly through several development schemes of the central and state governments, to the tune of Rs 70,000 crores per annum as against the estimated annual requirement of nearly Rs 1,09,000 crore.

CBD:

- At the 1992 Earth Summit in Rio de Janeiro, world leaders agreed on a comprehensive strategy for “sustainable development” — meeting our needs while ensuring that we leave a healthy and viable world for future generations. One of the key agreements adopted at Rio was the Convention on Biological Diversity.
- The Convention on Biological Diversity is the international legal instrument for “the conservation of biological diversity, the sustainable use of its components and the fair and equitable sharing of the benefits arising out of the utilization of genetic resources” that has been ratified by 196 nations.

The 12 National Biodiversity targets of India are:

- By 2020, a significant proportion of the country’s population, especially the youth, is aware of the values of biodiversity and the steps they can take to conserve and use it sustainably.
By 2020, values of biodiversity are integrated into national and state planning processes, development programmes and poverty alleviation strategies.

Strategies for reducing the rate of degradation, fragmentation and loss of all natural habitats are finalized and put in place by 2020 for environmental amelioration and human well-being.

By 2020, invasive alien species and pathways are identified and strategies to manage them developed so that populations of prioritized invasive alien species are managed.

By 2020, measures are adopted for sustainable management of agriculture, forestry and fisheries.

Ecologically representative areas under terrestrial and inland water, and also coastal and marine zones, especially those of particular importance for species, biodiversity and ecosystem services, are conserved effectively and equitably, based on protected area designation and management and other area-based conservation measures and are integrated into the wider landscapes and seascapes, covering over 20% of the geographic area of the country, by 2020.

By 2020, genetic diversity of cultivated plants, farm livestock, and their wild relatives, including other socio-economically as well as culturally valuable species, is maintained, and strategies have been developed and implemented for minimizing genetic erosion and safeguarding their genetic diversity.

By 2020, ecosystem services, especially those relating to water, human health, livelihoods and well-being, are enumerated and measures to safeguard them are identified, taking into account the needs of women and local communities, particularly the poor and vulnerable sections.

By 2015, Access to Genetic Resources and the Fair and Equitable Sharing of Benefits Arising from their Utilization as per the Nagoya Protocol are operational, consistent with national legislation.

By 2020, an effective, participatory and updated national biodiversity action plan is made operational at different levels of governance.

By 2020, national initiatives using communities’ traditional knowledge relating to biodiversity are strengthened, with the view to protecting this knowledge in accordance with national legislation and international obligations.

By 2020, opportunities to increase the availability of financial, human and technical resources to facilitate effective implementation of the Strategic Plan for Biodiversity 2011-2020 and the national targets are identified and the Strategy for Resource Mobilization is adopted.

What are Aichi Targets?

The ‘Aichi Targets’ were adopted by the Convention on Biological Diversity (CBD) at its Nagoya conference. It is a short term plan provides a set of 20 ambitious yet achievable targets, collectively known as the Aichi Targets. They can be divided into:

- Strategic Goal A: Address the underlying causes of biodiversity loss by mainstreaming biodiversity across government and society.
- Strategic Goal B: Reduce the direct pressures on biodiversity and promote sustainable use.
- Strategic Goal C: To improve the status of biodiversity by safeguarding ecosystems, species and genetic diversity.
- Strategic Goal D: Enhance the benefits to all from biodiversity and ecosystem services.
- Strategic Goal E: Enhance implementation through participatory planning, knowledge management and capacity building.

8.6 Cow urine may be adding to global warming

Context:

A study says cow urine may be adding to global warming.

How?
The urine from the ruminant is a source of nitrous oxide emissions (N2O), a gas that is 300 times more powerful than carbon dioxide.

Most times, when cow urine is used in degraded pastures, N2O emissions are tripled.

The cattle and livestock are a significant source of methane, a greenhouse gas, and therefore a contributor to global warming, is well-known. However, the role of cow urine is less understood.

How vulnerable is India?

- Dung and urine are commonly mixed together for manure in Indian fields. Since, India also hosts the world’s largest livestock population, as well as significant tracts of degraded land, the findings may have a bearing on nitrogen emissions from Indian fields.

- A 2012 satellite study by the Indian Space Research Organisation (ISRO) said that about 30% of India’s geographical area (or about 96.4 million hectares) is degraded.

- Degraded pastures not only affect food security and the livelihood of farmers today, but affect the livelihood of future farmers because they emit more gases that cause global warming.

- Degraded grasslands emitted more N2O than healthy pastures because the vegetation in the latter took up some of the reactive nitrogen compounds and only the leftovers were emitted.

8.7 Crocodylus palustris

Why in News?

- The mugger crocodile, also called marsh crocodile or broad-snouted crocodile, has come to the centre of renewed attention in Gujarat, where the Forest Department has started evacuating muggers from two ponds on the Sardar Sarovar Dam premises on the Narmada, to facilitate a seaplane service at the Statue of Unity.

Key facts:

- Already extinct in Bhutan and Myanmar.
- Listed as vulnerable on the IUCN Red List since 1982.
- In India, it is protected under Schedule I of the Wildlife Protection Act, 1972.

8.8 CRZ Regulations 2019

Context:

- The Union Ministry of Environment, Forest and Climate Change has notified the 2019 Coastal Regulation Zone (CRZ) norms, replacing the existing CRZ norms of 2011.
- The new CRZ norms have been issued under Section 3 of the Environment Protection Act, 1986.
- The new CRZ norms aim to promote sustainable development based on scientific principles.

Objective of CRZ Regulations 2019:

- To promote sustainable development based on scientific principles taking into account the natural hazards such as increasing sea levels due to global warming.
- To conserve and protect the environment of coastal stretches and marine areas, besides livelihood security to the fisher communities and other local communities in the coastal area.

Salient Features of CRZ Regulations 2019:

- CRZ-III A: The A category of CRZ-III areas are densely populated rural areas with a population density of 2161 per square kilometre as per 2011 Census. Such areas have a No Development Zone (NDZ) of 50 meters from the High Tide Line (HTL) as against 200 meters from the High Tide Line stipulated in the CRZ Notification, 2011.
- CRZ-III B – The B category of CRZ-III rural areas have population density of below 2161 per square kilometre as per 2011 Census. Such areas have a No Development Zone of 200 meters.
from the HTL.

- **Floor Space Index Norms eased**: As per CRZ, 2011 Notification, the Floor Space Index (FSI) or the Floor Area Ratio (FAR) had been frozen. As per the latest notification, the government has decided to de-freeze the Floor Space Index and permit FSI for construction projects.

- **Tourism infrastructure permitted in coastal areas**: The new norms permit temporary tourism facilities such as shacks, toilet blocks, change rooms, drinking water facilities, etc. in beaches.

- **Streamlining of CRZ Clearances**: The procedure for CRZ clearances has been streamlined. Now, the only such projects which are located in the CRZ-I (Ecologically Sensitive Areas) and CRZ IV (area covered between Low Tide Line and 12 Nautical Miles seaward) will be dealt with for CRZ clearance by the Ministry. The powers for clearances with respect to CRZ-II and III have been delegated at the State level.

- **No Development Zone of 20 meters for all Islands**: For islands close to the main land coast and for all Backwater Islands in the main land, No Development Zone of 20 meters has been stipulated in wake of space limitations and unique geography of such regions.

- **Pollution abatement**: To address pollution in Coastal areas, the treatment facilities have been made permissible in CRZ-I B area subject to necessary safeguards.

- **Critically Vulnerable Coastal Areas (CVCA)**: Sundarban region of West Bengal and other ecologically sensitive areas identified as under Environment (Protection) Act, 1986 such as Gulf of Khambat and Gulf of Kutch in Gujarat, Achra-Ratnagiri in Maharashtra, Karwar and Coondapur in Karnataka, Vembanad in Kerala, Gulf of Mannar in Tamil Nadu, Bhaitarkanika in Odisha and Krishna in Andhra Pradesh are treated as Critical Vulnerable Coastal Areas. These Critical Vulnerable Coastal Areas will be managed with the involvement of coastal communities including fisher folk.

### 8.9 Cyclone Pabuk

- A ‘yellow’ alert has been sounded for the Andaman and Nicobar Islands as a cyclonic storm is moving towards the archipelago, the Home Ministry said on 5 January 2018.

- The sea condition will be high over the Andaman Islands, the Andaman Sea and the adjoining areas of east-central and south-east Bay of Bengal till January 7 due to the **cyclonic storm ‘Pabuk’**, a Home Ministry official said, quoting a weather bulletin. **‘Pabuk’ originated over the Gulf of Thailand** and neighbourhood, moved west-northwestwards with a speed of 10 kilometres per hour (kmph) and lay centred over Thailand and neighbourhood.

- The storm will become very rough over south-east and east-central Bay of Bengal, the Andaman Islands and the adjoining Andaman Sea by January 8 and rough over east-central and adjoining south-east Bay of Bengal by January 8.

- The sea condition will be very rough over the Nicobar Islands till 6 January 2018. People in the Andaman Islands are advised to remain in safe places.

- The weather department has advised total suspension of fishing operation over the Andaman Sea and adjoining south-east and east-central Bay of Bengal till January 7 and over east-central and adjoining south-east Bay of Bengal till January 8.

- Fishermen are advised not to venture into the Andaman Sea and adjoining south-east and east-central Bay of Bengal during the period.

- It is very likely to move west-northwestwards and emerge into Andaman Sea by forenoon of today. Thereafter, it is very likely to move northwestwards and cross Andaman Islands around evening/night of January 6 as a cyclonic storm with a wind speed of 70-80 kmph gusting to 90 kmph.

- The cyclonic storm is very likely to move north-northwestwards and then recurve northeastwards towards Myanmar coast and weaken gradually during January 7-8.
8.10 Earth’s magnetic North Pole

Context:
- Researchers say Earth’s magnetic North Pole is ‘skittering’ away from Canada, towards Siberia.

MAGNETIC MOTION

The north magnetic pole is heading from Canada into Siberia, and recently crossed the International Date Line. Its rapid motion, plus other shifts in Earth’s magnetic field, have forced scientists to revise the magnetic models that guide navigation.

Impact on World Magnetic Model:
- The problem has got so bad, researchers around the world are scrambling to update a global model of the fields. Called the World Magnetic Model, it underlies all modern navigation, from the systems that steer ships at sea to Google Maps on smartphones.

Why are the earth’s magnetic fields moving?
- The problem lies partly with the moving pole and partly with other shifts deep within the planet.
- Liquid churning in Earth’s core generates most of the magnetic field, which varies over time as the deep flows change.
- In 2016, for instance, part of the magnetic field temporarily accelerated deep under northern South America and the eastern Pacific Ocean. Satellites such as the European Space Agency’s Swarm mission tracked the shift.

What is the world magnetic model?
- The charts, known as the World Magnetic Model (WMM), are used to convert between compass measurements of magnetic north and true north and can be found in the navigation systems of ships and airplanes as well as geological applications (such as drilling and mining).
- The WMM is also part of map applications in smartphones, including the Google Maps App.
- Researchers from the U.S.’s National Oceanic and Atmospheric Administration (NOAA) maintain the WMM.
What could happen to earth if its poles flipped?

- Scientists in recent years have predicted that Earth’s magnetic field could be gearing up to ‘flip’ – a shift in which the magnetic south pole would become magnetic north, and vice versa. Such an event could have catastrophic effects, wreaking havoc on the electric grid and leaving life at the surface exposed to higher amounts of solar radiation.
- Electric grid collapse from severe solar storms is a major risk. As the magnetic field continues to weaken, scientists are highlighting the importance of off-the-grid energy systems using renewable energy sources to protect the Earth against a blackout.
- Very highly charged particles can have a deleterious effect on the satellites and astronauts.
- The Earth’s climate could also change. A recent Danish study has found that the earth’s weather has been significantly affected by the planet’s magnetic field.

8.11 e-Waste

Context:

- To highlight the rising challenge posed by mountains of discarded electronics worldwide, seven UN entities have come together to launch the report- “A New Circular Vision for Electronics – Time for a Global Reboot” at the World Economic Forum in Davos, Switzerland, in a bid to offer some solutions to a behemoth-sized problem that is making the world sicker and adding to environmental degradation.
- The joint report calls for a new vision for e-waste based on the “circular economy” concept, whereby a regenerative system can minimize waste and energy leakage.

International convention in this regard:

- E-waste export, though, is regulated under the Basel Convention on the Control of Transboundary Movement of Hazardous Wastes and Their Disposal, which has been ratified by 188 nations.

So where is the crisis?

- It lies in the fact that globally, only up to 20% of e-waste is recycled. The rest is undocumented and experts predict that it gets buried under the ground in landfills for centuries as it is not biodegradable.
And how does it impact us? “From lead-lined, cathode ray tubes to old TVs, to lead and chromium in circuit boards (of various devices), e-waste contains substances that are hazardous to human health, including, mercury, cadmium and lead. E-waste can pollute water sources and food-supply chains.”

Solutions to the crisis - Highlights of the report by UN:

- The report calls for **systematic collaboration with major brands, small and medium-sized enterprises, academia, trade unions, civil society and associations** in a deliberative process to reorient the system and reduce the waste of resources each year with a value greater than the GDP of most countries.
- To capture the global value of materials in e-waste and create global circular value chains, **use new technology to create service business models, better product tracking and manufacturer or retailer take-back programmes**.
- The report notes that **material efficiency, recycling infrastructure and scaling up the volume and quality of recycled materials** to meet the needs of electronics supply chains will all be essential for future production.
- **The producers should also have buy-back or return offers** for old equipment, and plans to incentivise the consumer financially. The report also advocates a system of ‘urban mining’ by strengthening the extended producer responsibility provision.
- **Job potential**: If the electronics sector is supported with the right policy mix and managed in the right way, it could lead to the creation of millions of decent jobs worldwide.

E-waste Coalition:

- The report supports the work of the E-waste Coalition, which includes International Labour Organization (ILO); International Telecommunication Union (ITU); United Nations Environment Programme (UN Environment); United Nations Industrial Development Organization (UNIDO); United Nations Institute for Training and Research (UNITAR); United Nations University (UNU) and Secretariats of the Basel and Stockholm Conventions.

Why worry about e-waste?

- Organic and easily recyclable metal, glass and plastic waste need not permanently remain in landfills. But hard-to-recover substances from e-waste like mercury make their home in landfills and keep leaching into ground water.
- In recent years, its e-waste has grown faster than earlier anticipated. The Greenpeace study found e-waste growing at 15% annually and projected it to go up to 800,000 tonnes by 2012. But it stood at 1.7 million tonnes in 2014, the fifth highest in the world, according to a UN study.
- In India, e-waste accounts for 4% of global e-waste and 2.5% of global GDP (2014 figures) – so it has a higher share of e-waste than its share of gross domestic product (GDP). For China, the two ratios are about the same. The US, on the other hand, accounts for a lower share of global e-waste than its share of GDP.
- **According to a 2011 Rajya Sabha secretariat study**, e-waste accounts for 70% of Indian landfills. If penetration of electronics and electrical products in India by 2030 have to grow even to today’s average world capita which leads to e-waste of 6 kg per capita, the absolute e waste generation for India will grow five times the current level to 9 million tonnes in 2030.

Why it is difficult to manage e waste in India?

- The producers/manufacturers **do not have adequate information** on their website regarding e waste management.
- **Customer care representatives do not have inkling about any take back or recycling programme** and even if they have set up collection centres, they are simply not enough for a geographically vast country like India.
- **India being a vast country, setting up collection mechanism is a big challenge.** If any of
the brands try individually to reach out to all corners of the country, it will economically not be sustainable or feasible.

- Improper enforcement of the existing laws is another hurdle.

### 8.12 First Odisha Turtle Festival

**Context:**
- First Odisha Turtle Festival was held in Puri to create awareness and promote ideas on conservation of olive ridley turtles.
- Organised by: Cox & Kings Foundation in association with Humane Society International/India and Action for Protection of Wild Animals (APOWA).

**Need of the hour:**
- Odisha has half of the world’s Olive Ridley turtle population and 90% of India’s turtle population lives in the state. Despite that no actions have been taken for their conservation. Therefore, the government should develop some infrastructure near the turtle nesting sites at Devi and Rusikulya rivers, the two major nesting grounds.

**Back to Basics:**
- There are five species in Indian waters — Leatherback (Vulnerable), Loggerhead (Endangered), Hawksbill (Critically Endangered), Green (Endangered) and Olive Ridley.
- In India, sea turtles are protected under the **Indian Wildlife Protection Act of 1972**.
- The Olive ridley turtles are the smallest and most abundant of all sea turtles found in the world, inhabiting warm waters of the Pacific, Atlantic and Indian oceans.
- The Olive ridley is the most numerous among the sea turtles found in India and is well known for its arribadas, or annual mass nestings when thousands of turtles migrate to the breeding ground to nest simultaneously.
- Recognized as Vulnerable by the IUCN Red List.
- International trade in these turtles and their products is banned under CITES Appendix I.
- ‘Operation Kachhapa’: Conservation of the Olive Ridley Sea Turtle was launched by the Wildlife Protection Society of India in collaboration with the Orissa State Forest Department and the Wildlife Society of Orissa and other local NGOs.
- To reduce accidental killing in India, the Orissa government has made it mandatory for trawls to use Turtle Excluder Devices (TEDs), a net specially designed with an exit cover which allows the turtles to escape while retaining the catch.

### 8.13 Flamingo Festival

**Context:**
- Flamingo Festival is held every year to promote tourism in Pulicat and Nellapattu. Flamingo Festival is being organised for the past 12 years.

**Nelapattu Bird Sanctuary:**
- It is considered one of the biggest habitat for some hundreds of pelicans and other birds. Located about 20 km north of the Pulicat Lake on the Andhra Pradesh-Tamil Nadu border, the sanctuary is spread in about 459 hectares.

**Pulicat lake:**
- It is the second largest brackish water lake or lagoon in India, after Chilika Lake. It straddles the border of Andhra Pradesh and Tamil Nadu states with over 96% of it in Andhra Pradesh.
- The lake encompasses the Pulicat Lake Bird Sanctuary. The barrier island of Sriharikota separates the lake from the Bay of Bengal and is home to the Satish Dhawan Space Centre.
• Two rivers which feed the lagoon are the Arani river at the southern tip and the Kalangi River from the northwest, in addition to some smaller streams. The Buckingham Canal, a navigation channel, is part of the lagoon on its western side.

8.14 Formalin in Fish

Context:
• Bihar’s heath department has imposed a blanket ban for 15 days on sale of fish from Andhra Pradesh and West Bengal in capital Patna after samples were found to be contaminated with formalin. The ban includes storage and transportation of fish from Andhra Pradesh and West Bengal.

Formalin:
• Formalin is a toxic, colourless solution that is derived by dissolving formaldehyde gas in water.
• It is a cancer-inducing chemical used to preserve fish and is used as a disinfectant. It is used in the manufacture of pesticides, fertilisers, glue, paper and paint, among other products.
• Formalin causes irritation in the eyes, throat, skin and stomach. In the long run continued exposure causes harm to the kidneys, liver and can even cause cancers.
• Formaldehyde is a highly reactive, flammable gas, which means it can become a fire hazard when exposed to flame or heat.

Why is fish laced with formalin?
• Fish is a highly perishable commodity. If it isn’t maintained at the proper temperature of 5 degree Celsius, it gets spoil. To avoid that and increase its shelf life, the sellers now use chemicals such as formalin and ammonia.
• If the point of sale is far from the place of catch, formalin is used as a preservative. Meanwhile, ammonia is mixed with the water that is frozen to keep fish fresh.

Operation Sagar Rani:
• In June 2018, Kerala food safety department officials seized nearly 9,600 kg of fish preserved in formalin at a border check post in Kollam district. The seized fish included 7,000 kg of prawns and 2,600 kg of other species. The seizure was part of ‘Operation Sagar Rani’ launched by the state.

8.15 Future generations face an environmental “time bomb”

Context:
• Future generations face an environmental “time bomb” as the world’s groundwater systems
take decades to respond to the present day impact of climate change, scientists have warned.

What’s the issue?
- As per the findings by an international team of researchers, groundwater reserves are already under pressure as the global population explodes and crop production rises in lockstep. But the extreme weather events such as drought and record rainfall — both made worse by our heating planet — could have another long-lasting impact on how quickly reserves replenish.

Why is the crisis described as a time bomb?
- Researchers found that only half of all groundwater supplies are likely to fully replenish or re-balance within the next 100 years — potentially leading to shortages in drier areas. This could be described as an environmental time bomb because any climate change impacts on recharge occurring now, will only fully impact the baseflow to rivers and wetlands a long time later.
- The process through which rainwater is filtered through bedrock and accumulated underground can take centuries and varies greatly by region. As climate change delivers longer droughts and bigger superstorms, the extremes of rainfall become more pronounced, impacting groundwater reserves for generations to come. In arid areas took far longer — several thousand years in some cases — to respond to alterations in climate than reserves in more humid parts.

Situation of groundwater in India:
- Today, India is the largest user of the groundwater in the world with almost 90% being used for drinking water and almost 60-70% for irrigation. Current statistics also show that nearly 50% of urban water supply comes from groundwater. India is on the threshold of a very serious groundwater crisis, which needs mitigation both in the fields and at the policy corridors of the country.

The groundwater crisis is embedded at two different levels:
- Groundwater exploitation of aquifers (where groundwater is stored) in different parts of the India and
- Groundwater contamination that find origins, both in geogenic source such as Arsenic and Fluoride along with anthropogenic sources of contamination primarily due to poor disposal of waste and wastewater.

Concern:
- Water scarcity, poor water quality and inadequate sanitation negatively impact food security, livelihood choices and educational opportunities for poor families across the world. Drought afflicts some of the world’s poorest countries, worsening hunger and malnutrition.

Need of the hour:
- There is a need to modernise the regulatory framework for accessing groundwater soon after massive expansion in mechanical pumping led to the realisation that recharge could not keep pace with use.

8.16 Green – Ag: Transforming Indian Agriculture for global environmental benefits and the conservation of critical biodiversity and forest landscapes

Context:
- The Government has launched the “Green – Ag: Transforming Indian Agriculture for global environmental benefits and the conservation of critical biodiversity and forest landscapes” in association with Global Environment Facility (GEF).

About the Project:
- The project would be implemented in collaboration with the Food and Agriculture Organisation (FAO) in high-conservation-value landscapes of five States namely, (i) Madhya Pradesh: Chambal Landscape, (ii) Mizoram: Dampa Landscape, (iii) Odisha: Similipal Landscape, (iv) Rajasthan: Desert National Park Landscape and v) Uttarakhand: Corbett-Rajaji Landscape.
• The Green-Ag project seeks to integrate biodiversity, climate change and sustainable land management objectives and practices into Indian agriculture.

• The project aims to catalyze a transformative change in India’s agricultural sector to support the achievement of national and global environmental benefits and conservation of critical biodiversity and forest landscapes.

• The project supports harmonization between India’s agricultural and environmental sector priorities and investments to realize the national and global environmental benefits without compromising on India’s ability to strengthen rural livelihoods and meet its food and nutrition security.

**GEF:**
- The Global Environment Facility was established on the eve of the 1992 Rio Earth Summit to help tackle our planet’s most pressing environmental problems.
- It is an international partnership of 183 countries, international institutions, civil society organizations and the private sector that addresses global environmental issues.
- GEF funds are available to developing countries and countries with economies in transition to meet the objectives of the international environmental conventions and agreements.
- The World Bank serves as the GEF Trustee, administering the GEF Trust Fund.

### 8.17 India can’t handle more big cats

**Context:**
- With shrinking habitats, experts opine that India has almost neared its capacity to manage tigers. Therefore, **India must also prepare for a new challenge — of reaching the limits of its management capacity.**

**Notable points:**
- India’s current capacity to host tigers ranges from 2,500-3,000 tigers. Officially, India had 2,226 tigers as of 2014. An ongoing census is expected to reveal an update to these numbers.
- 25-35% of India’s tigers now lived outside protected reserves.
- Recent attempts at translocating tigers to unpopulated reserves, such as Satkosia in Orissa, have ended badly, with one of the tigers dying.

**Main Challenges:**
- Dwindling core forest as well as the shrinking of tiger corridors.
- Poaching and man-animal conflict.

**Way ahead:**
- India has the **maximum number of wild tigers in the world** (70% of tigers in the world are in India). Therefore, it needs a fool-proof plan to manage the growing number of big cats.
- Given the low availability of prey in some reserves, the country should now concentrate on developing vast tracts of potential tiger habitat that can be used to improve prey density, develop tiger corridors and therefore support a much larger population.

**International Stock Taking Conference on Tiger Conservation:**
- The **3rd Stock Taking Conference on Tiger Conservation** was recently inaugurated in New Delhi. Third in a series of Stock Taking Conferences, this is the second to be held in India after 2012 and is expected to have wide-ranging discussions on the status of the Global Tiger Recovery Program (GTRP) by the 13 tiger range countries besides deliberations on combating wildlife trafficking.
- **13 Tiger range States**—Bangladesh, Bhutan, Cambodia, China, India, Indonesia, Lao PDR, Malaysia, Myanmar, Nepal, Russia, Thailand, and Vietnam.
- **The conference is being hosted by** the National Tiger Conservation Authority, Ministry of
Environment, Forest and Climate Change in close collaboration with the Global Tiger Forum which is an International, Intergovernmental Organization for conserving tigers in the world.

- **Additional facts:** During the St. Petersburg declaration in 2010, tiger range countries had resolved to double tiger numbers across their range by 2022.

### 8.18 India’s Second Tulip Garden to Come up in Uttarakhand

**Context:**
- India’s second Tulip garden will be set up in Pithoragarh district at a cost of Rs 50 crore. First one is located in Srinagar of Jammu and Kashmir.
- The Tulip Garden will be developed by ONGC, under its corporate social responsibility programme in over 50 hectares of forest land near Chandak hilltop.
- The site was selected under the 13 districts, 13 new destinations’ scheme, to attract more tourists to the Pithoragarh district of Uttarakhand.

### 8.19 Kasturirangan Committee

**Context:**
- The Committee on Government Assurances in the Rajya Sabha has urged the Ministry of Environment, Forest and Climate Change to constitute a committee to address the issues and grievances of local people in Western Ghats. The committee has submitted a report in this regard.

**Important observations made by the committee:**
- Over 56,000 square kilometres of ecologically sensitive areas (ESA) in the Western Ghats could not be earmarked as ‘no-go’ zones due to State governments’ ‘insensitivity’.
- The recent monsoon floods in Kerala and parts of Karnataka should serve as alarm bells for the administrations in the States of Goa, Gujarat, Maharashtra, Kerala, Tamil Nadu and Karnataka, which have failed to mark ESA in the Western Ghats.

**Background:**
- The panel had examined issues regarding the categorisation of the Western Ghats as ESA as per the recommendations of two committees led by Madhav Gadgil and K. Kasturirangan. The panel examined 62 assurances during its deliberations with various State governments and other organisations, and had visited Pune, Mumbai, Chennai and Bengaluru, before preparing its report.

**What next?**
- The committee is of the view that implementation of the recommendations of the Kasturirangan report is only possible with active support of local population. It also requires consultation with the State government at micro level to achieve the objectives of saving the Western Ghats.

**What did the Gadgil Committee say?**
- It defined the **boundaries of the Western Ghats** for the purposes of ecological management. It proposed that this entire area be designated as **ecologically sensitive area (ESA)**.
- Within this area, smaller regions were to be identified as **ecologically sensitive zones (ESZ) I, II or III based on their existing condition and nature of threat**.
- It proposed to divide the area into about 2,200 grids, of which 75 per cent would fall under ESZ I or II or under already existing protected areas such as wildlife sanctuaries or natural parks.
- The committee proposed a Western Ghats Ecology Authority to regulate these activities in the area.

**What was the need for the subsequent Kasturirangan Committee?**
- None of the six concerned states agreed with the recommendations of the Gadgil Committee, which submitted its report in August 2011.
- In August 2012, then Environment Minister constituted a High-Level Working Group on
Western Ghats under Kasturirangan to “examine” the Gadgil Committee report in a “holistic and multidisciplinary fashion in the light of responses received” from states, central ministries and others.

Recommendations of Kasturirangan Committee:
- A ban on mining, quarrying and sand mining.
- No new thermal power projects, but hydro power projects allowed with restrictions.
- A ban on new polluting industries.
- Building and construction projects up to 20,000 sq m was to be allowed but townships were to be banned.
- Forest diversion could be allowed with extra safeguards.

8.20 Kyasanur Forest Disease

Context:
- Karnataka is currently reeling under an outbreak of monkey fever or Kyasanur forest disease (KFD). Authorities are taking measures, including vaccination to combat the disease and spread of it in the state.

About the Disease:
- **KFD** is caused by the Kyasanur Forest Disease Virus (KFDV). The virus was identified in 1957 when it was isolated from a sick monkey from the Kyasanur Forest. Since then, between 400-500 humans cases per year have been reported.
- **Hard ticks** (Hemaphysalis spinigera) are the reservoir of the KFD virus and once infected, remain so for life.
- **Rodents**, shrews, and monkeys are common hosts for KFDV after being bitten by an infected tick. KFDV can cause epizootics with high fatality in primates.

Transmission:
- **Transmission to humans** may occur after a tick bite or contact with an infected animal, most importantly a sick or recently dead monkey. No person-to-person transmission has been described.
- **The disease as of now is stated to be transmitted through monkeys**. Large animals such as goats, cows, and sheep may become infected with KFD but play a limited role in the transmission of the disease.
- **These animals provide the blood meals** for ticks and it is possible for infected animals with viremia to infect other ticks, but transmission of KFDV to humans from these larger animals is extremely rare. Furthermore, there is no evidence of disease transmission via the unpasteurised milk of any of these animals.

Symptoms:
- After an incubation period of 3-8 days, the symptoms of KFD begin suddenly with chills, fever, and headache. Severe muscle pain with vomiting, gastrointestinal symptoms and bleeding problems may occur 3-4 days after initial symptom onset. Patients may experience abnormally low blood pressure, and low platelet, red blood cell, and white blood cell counts.
- After 1-2 weeks of symptoms, some patients recover without complication. However, the illness is biphasic for a subset of patients (10-20 %) who experience a second wave of symptoms at the beginning of the third week. These symptoms include fever and signs of neurological manifestations, such as severe headache, mental disturbances, tremors, and vision deficits.

Vulnerable Group:
- People with recreational or occupational exposure to rural or outdoor settings (e.g., hunters, herders, forest workers, farmers) are potentially at risk for infection by contact with infected ticks.
- Seasonality is another important risk factor as more cases are reported during the dry season, from November through June.

Diagnosis:
- Diagnosis can be made in the early stage of illness by molecular detection by PCR or virus isolation from blood. Later, serologic testing using enzyme-linked immunosorbent serologic assay (ELISA) can be performed.

Prevention:
- Doctors say there is no specific treatment for KFD, but early hospitalisation and supportive therapy is important. Supportive therapy includes the maintenance of hydration and the usual precautions for patients with bleeding disorders.
- A vaccine does exist for KFD and is used in endemic areas of India. Additional preventative measures include insect repellents and wearing protective clothing in areas where ticks are endemic.

**Kyasanur Forest Disease (KFD) Virus Ecology**

- The hard tick *Haemaphysalis spinigera* is the reservoir and vector of Kyasanur Forest Disease Virus (KFDV). Once infected, ticks remain so for life and are able to pass KFDV to offspring via the egg.
- Transmission of KFDV to humans may occur after a tick bite or contact with an infected animal, most commonly a sick or recently dead monkey. No person-to-person transmission has been described.
- Human cases occur more frequently in drier months (Nov-June) and in Southwest and South India.
- Monkeys and small mammals are common hosts for KFDV. Infection with KFDV can cause epizootics with high fatality in primates.
- Larger animals such as cattle, goats, or sheep may become infected with KFD but play a limited role in transmission of disease to humans.
- Local residents visit the forest to collect firewood and can be infected through tick bites.

8.21 Mobile App called “DAMINI”

- The India Meteorological Department will be implementing an end-to-end prediction system for predicting thunderstorms/lightning by April 2019.
- It will be developed by Indian Institute of Tropical Meteorology (IITM), Pune and IMD.
New Delhi.

- IITM Pune also developed a **Mobile App** called “DAMINI” to give alerts on impending lightning activity over the area.

### 8.22 National Bamboo Mission (NBM)

**Context:**
- The restructured National Bamboo Mission (NBM) was approved in April, 2018 for implementation till the end of 14th Finance Commission i.e. 2019-2020.

**Aim of the Mission:**
- It aims to **inter-alia supplement farm income of farmers with focus on the development of complete value chain of bamboo sector** linking growers with industry.
- The scheme is being implemented in non-forest Government land, farmers field in States where it has social, commercial and economical advantage, including the bamboo rich States of North Eastern region and Madhya Pradesh, Maharashtra, Chhattisgarh, Odisha, Karnataka, Uttarakhand, Bihar, Jharkhand, Andhra Pradesh, Telangana, Gujarat, Tamil Nadu and Kerala.

**Till Now:**
- 88 Bamboo Treatment Units, 464 Product Development/Processing Units, 135 Infrastructure Projects for Promotion and Development of Bamboo Markets, and an area of 15740 ha for plantation has been approved.
- Financial Assistance to North Eastern States is provided in the **ratio of 90:10 between Central & State Government.**
- A number of consultations have been held with State Governments and Industry to invigorate the bamboo sector in the region.

**National Bamboo Mission:**
- The Mission envisages promoting holistic growth of bamboo sector by adopting area-based, regionally differentiated strategy and to increase the area under bamboo cultivation and marketing.

**Key Outputs:**
- Coverage of 1,05,000 ha area under bamboo in two years by ensuring adequate stocks of selected genetically superior quality planting material.
- Promotion and diversification of bamboo products through establishment of micro, small, medium & large processing units and development of value chain in bamboo.
- Setting up and strengthening of bamboo mandi/bazaars/rural haats, including promoting online trade.
- Enhanced cooperation within the country related to research, technology, product development, machinery, trade information and knowledge sharing platform particularly for NE States to give a boost to the low key bamboo based industry in the country.

**Mission Structure:**
- The NBM will be a **sub-scheme of National Mission on Sustainable Agriculture (NMSA)** under the umbrella scheme Krishonnati Yojana.

**Funding Pattern:**
- 60:40 between Centre and State Govt. for all States (excepting NE & Hilly states),
- 90:10 for the NE & Hilly States, and
- 100% for Union Territories/R&D Institutes/Bamboo Technology Support Groups (BTSGs) and National Level Agencies.
8.23 National Clean Air Programme (NCAP)

Context:
- The government has announced the National Clean Air Programme (NCAP). This is the first ever effort in the country to frame a national framework for air quality management with a time-bound reduction target.
- The programme will not be notified under the Environment Protection Act or any other Act to create a firm mandate with a strong legal back up for cities and regions to implement NCAP in a time bound manner for effective reduction.

Key features of the National Clean Air Programme (NCAP):
- Achieve a national-level target of 20-30% reduction of PM2.5 and PM10 concentration by between 2017 and 2024.
- Central Pollution Control Board (CPCB) will execute this nation-wide programme in consonance with the section 162 (b) of the Air (Prevention and Control of Pollution) Act, 1986.
- The programme has been launched with an initial budget of ₹300 crore for the first two years.
- The plan includes 102 non-attainment cities, across 23 states and Union territories, which were identified by Central Pollution Control Board (CPCB) on the basis of their ambient air quality data between 2011 and 2015.
- Non-attainment cities are those which have been consistently showing poorer air quality than the National Ambient Air Quality Standards. These include Delhi, Varanasi, Bhopal, Kolkata, Noida, Muzaffarpur, and Mumbai.
- As part of the programme, the Centre also plans to scale up the air quality monitoring network across India. At least 4,000 monitors are needed across the country, instead of the existing 101 real-time air quality (AQ) monitors, according to an analysis.
- The plan proposes a three-tier system, including real-time physical data collection, data archiving, and an action trigger system in all 102 cities, besides extensive plantation plans, research on clean-technologies, landscaping of major arterial roads, and stringent industrial standards.
- It also proposes state-level plans of e-mobility in the two-wheeler sector, rapid augmentation of charging infrastructure, stringent implementation of BS-VI norms, boosting public transportation system, and adoption of third-party audits for polluting industries.
- Various committees: The national plan has proposed setting up an apex committee under environment minister, a steering committee under-secretary (environment) and a monitoring committee under a joint secretary. There would be project monitoring committees at the state-level with scientists and trained personnel.

Benefits of the programme:
- NCAP has certainly helped kick start the much-awaited good practice of setting air pollution reduction targets. The biggest advantage of such targets is that it helps decide the level of stringency of local and regional action needed for the plans to be effective enough to meet the reduction targets.

Need of the hour:
- The MoEF&CC, as a nodal central and apex agency, will have to flex its authority to ensure all NCAP indicators are integrated with multi-sector and inter-ministerial programmes to align with the air quality target and objectives.
- NCAP should not become only a top-down prescriptive approach. In fact, within the federal structure, NCAP, while ensuring compliance, will also have to create enough room for tighter action that can be even stronger than the common minimum national programme as defined by NCAP.
- State governments and city authorities should be encouraged and enabled to take those **extra steps to meet local targets**. City-wise air quality targets will clearly show where much deeper cuts will be needed for hotspot and stronger regional action.

- **NCAP will also have to join all critical dots with clarity.** For instance, in case of vehicular pollution, the main body of the plan has ignored mobility, transportation and urban planning strategies, though fortunately, the indicative broadsheet of action at the end has listed public transport, transit-oriented development policies, and non-motorised transport. But these will have to be detailed out with clear pathways and milestones and integrated well with the NCAP strategies.

- **NCAP will also have to be more nuanced and adopt appropriate approaches for small and big cities** according to their dominant pollution profile while several strategies may remain uniform.
8.24 Neglected Tropical Diseases

Context:
- A new report has found that the Indian government is the fourth largest funder for research and development into neglected tropical diseases.
- The findings come from an analysis of global investment into research and development (R&D) on new products for neglected diseases in developing countries, as part of the eleventh annual G-Finder survey.
- The survey looks at funding for a number of diseases like trachoma, buruli ulcer, rheumatic fever, meningitis, leptospirosis and also for HIV/AIDS, malaria, TB, dengue, hepatitis C and leprosy.
- It examines funding from government sources, philanthropies, private sector funding and other types of organisations.

Key findings of the report:
- With USD 1,595 million, the US government is the largest funder.
- The Indian government, which contributes USD 72 million, comes 4th.
- Among other low and middle income countries (LMICs), India is credited with being responsible for the “lion’s share” of public funding.
- India also records the strongest global growth in public funding for R&D on neglected diseases since 2009.

Need for and significance of R&D into neglected tropical diseases:
- The need for drugs for neglected diseases and also for drug R&D is high in India. The country tops the number of cases for 11 different neglected tropical diseases such as lymphatic filariasis, visceral leishmaniasis, trachoma, tapeworm, roundworm, hookworm, whipworm, dengue and leprosy.
- In 2017, there were around 2.8 million new cases of TB, which brought down the global decline of TB. One third of all TB deaths worldwide happen in India.

Recent policies on neglected diseases research in India:
- The National Health Policy (2017) sets an ambition to stimulate innovation to meet health needs and ensure that new drugs are affordable for those who need them most, but it does not specifically tackle neglected diseases.
- The National Policy on Treatment of Rare Diseases (2018) includes infectious tropical diseases and identifies a need to support research on treatments for rare diseases. It has not yet prioritised diseases and areas for research funding or how innovation would be supported.

What’s missing?
- A comprehensive policy to foster research and innovation in drug discovery, diagnostics, and vaccine development in neglected tropical diseases is lacking.
- While political intent and will are expressed in a few, clear operational plans and funding mechanisms are not specified. Consequently, follow-up action is patchy or absent.
- No institutional mechanism exists at a national level to identify gaps in neglected diseases research, set priorities, liaise with research institutions, or monitor research output. There is often no coordination between the various funding and research bodies to prioritise the research agenda and minimise duplication.

Way ahead:
- A unified programme on neglected diseases encompassing research and elimination measures is likely to have a greater impact in prioritising the matter in the health agenda and streamlining efforts towards disease elimination. Creating an enabling environment for research and innovation will be crucial if India is to achieve the target set in sustainable development goal 3.3 to end epidemics of neglected tropical diseases by 2030.
8.25 Parivesh

Context:
- An ambitious web-based single-window system ‘Parivesh’ will be rolled-out at state levels by January 15, bringing an end to the clearance nightmare for entrepreneurs. The automated system for submission, clearance and monitoring has already been implemented at the Central level.

What is it?
- It is an environmental single window hub for Environment, Forest, Wildlife and CRZ clearances. This Single-Window Integrated Environmental Management System has been developed in pursuance of the spirit of ‘Digital India’ initiated by the Prime Minister and capturing the essence of Minimum Government and Maximum Governance.

Key features:
- “PARIVESH” is a workflow based application, based on the concept of web architecture. It has been rolled out for online submission, monitoring and management of proposals submitted by Project Proponents to the Ministry of Environment, Forest and Climate Change (MOEFCC), as well as to the State Level Environmental Impact Assessment Authorities (SEIAA).
- It seeks to give various types of clearances (e.g. Environment, Forest, Wildlife and Coastal Regulation Zone Clearances) from Central, State and district-level authorities.
- The system has been designed, developed and hosted by the Ministry of Environment, Forest and Climate Change, with technical support from National Informatics Centre, (NIC).
- It provides single registration and single sign-in for all types of clearances (i.e. Environment, Forest, Wildlife and CRZ), unique-ID for all types of clearances required for a particular project and a single Window interface for the proponent to submit applications for getting all types of clearances (i.e. Environment, Forests, Wildlife and CRZ clearances).

Significance and benefits of the platform:
- PARIVESH offers a framework to generate economic growth and strengthens Sustainable Development through e-Governance. With automatic highlighting of non-compliance by the system, PARIVESH helps in improving the overall performance and efficiency of the whole appraisal process.
- It also helps the processing authorities, as it has a Single Window System for Central, State and District level clearances.
- The facility of Geographic Information System (GIS) interface for the Appraisal Committee will help them in analyzing the proposal efficiently, automatic alerts (via SMS and emails) at important stages to the concerned officers, committee members and higher authorities to check the delays, if any.
- It also enables project proponents, citizens to view, track and interact with scrutiny officers, generates online clearance letters, online mailers and alerts to state functionaries in case of delays beyond stipulated time for processing of applications.

8.26 Polar Vortex

Context:
- Weather experts are predicting an extremely cold January and February for the northeastern United States, much of northern Europe and parts of Asia. The reason being given is the polar vortex.
- In this decade, the polar vortex has also been blamed on extremely cold weather in the United States in 2014 and the infamous ‘Beast from the East’, the blast of cold weather that blew from Siberia towards western Europe and the UK in February and March of 2018.
What exactly is a polar vortex?

- It is described as a whirling cone of low pressure over the poles that is strongest in the winter months due to the increased temperature contrast between the polar regions and the mid-latitudes, such as the US and Europe.
- The polar vortex spins in the stratosphere, a layer of the atmosphere 10-48 km above the ground and above the troposphere, where most familiar weather patterns develop.
- Usually, when the vortex is strongest, cold air is less-likely to plunge deep into North America or Europe. In other words, it forms a wall that protects the mid-latitudes from cold Arctic air.
- But occasionally, the polar vortex is disrupted and weakens, due to wave energy propagating upward from the lower atmosphere. When this happens, the stratosphere warms sharply in an event known as sudden stratospheric warming, in just a few days, miles above the Earth’s surface.
- The warming weakens the polar vortex, shifting its location somewhat south of the pole or, in some instances, ‘splitting’ the vortex up into ‘sister vortices’.

Effects:

- The split higher up in the atmosphere can give rise to both, sudden and delayed effects, much of which involves declining temperatures and extreme winter weather in the eastern US along with northern and western Europe.
- A sudden stratospheric warming also leads to a warm Arctic not only in the stratosphere but also in the troposphere as well. A warmer Arctic, in turn, favours more severe winter weather in the Northern Hemisphere mid-latitudes including the eastern US.

8.27 Sarus crane

Context:

- Sarus crane, whose numbers pushed to the edge by habitat degradation and human callousness, now seems to be getting a new lease of life in Uttar Pradesh, where it enjoys the status of official State bird.
- Rise in numbers: The population of the Sarus crane, a bird distinguishable by its red upper neck and white collar, has climbed to 15,938 as per the 2018 census (summer). This is a jump of 5.2% from 2017, when there were 15,138 Sarus cranes across U.P. Its population in Uttar Pradesh has steadily grown since 2013, as wetlands thrive and farmers, fisherfolk nurture their nests.

Key facts:

- The Sarus (Grus antigone) is the tallest flying bird in the world.
- It is also India’s only resident breeding crane.
- IUCN status- ‘vulnerable’.
- It has three disjunct populations in the Indian sub-continent, south-east Asia and northern Australia.

8.28 Small Farmers’ Agri-Business Consortium (SFAC)

Why in News?

- Silver Jubilee Celebrations of the Small Farmers’ Agri-Business Consortium (SFAC).

SFAC:

- The Government established Small Farmers’ Agri-Business Consortium (SFAC) as a Society in January 1994 to facilitate agri-business ventures by catalysing private investment through Venture Capital Assistance (VCA) Scheme in close association with financial institutions. The role of State SFACs is to aggressively promote agribusiness project development in their respective States.
• The Society is governed by Board of Management which is chaired, ex-officio, by Hon’ble Union Minister for Agriculture and Farmers Welfare as the President and the Secretary, Department of Agriculture, Cooperation and Farmers Welfare, Government of India, is the ex-officio Vice-President.

The main functions of SFAC are:
• Promotion of development of small agribusiness through VCA scheme.
• Helping formation and growth of Farmer Producer Organizations (FPOs) / Farmer Producer Companies (FPCs).
• Improving availability of working capital and development of business activities of FPOs/FPCs through Equity Grant and Credit Guarantee Fund Scheme.
• Implementation of National Agriculture Market (e-NAM) Electronic Trading platform.

8.29 Small Woodbrown butterfly

Context:
• After a span of 120 long years, researchers in Sikkim have rediscovered the Small Woodbrown butterfly species from Bakhim in Khanchendzonga National Park.

Key facts:
• The Small Woodbrown butterfly, scientifically known as Lethe nicetella is named after its brown-coloured wings patched with white round spots.
• It is amongst the smallest members of the genus Lethe, with wings that are up to 50 millimeters long.
• The species is endemic to the eastern Himalayas and occurs in forests lying between elevations of 1,800-2,800 metres.
• Distribution: Across the world, species of Lethe are found in Sunda Islands, Japan, Siberia, Himalayas and peninsular India. Of the 41 species of Lethe that are found in India, 32 species are reported from Sikkim alone.

8.30 Smart Food Executive Council

Context:
• Associations including the Asia-Pacific Association of Agricultural Research Institutions (APAARI), Forum for Agricultural Research in Africa (FARA), West and Central African Council for Agricultural Research and Development (CORAF), Food Agriculture and Natural Resources Policy Analysis Network (FANRPAN), and the International Crops Research Institute for the Semi-Arid Tropics (ICRISAT) together have formed the Smart Food Executive Council.

Smart Food Executive Council:
• Formed under the aegis of the Smart Food Initiative that was launched in 2013.
• Need: Stemmed from the strategic thinking around the need for food that fulfils the criteria of being good for the consumer, good for the planet and good for the farmer.
• Objective: To diversify staples which can have the strongest impact on nutrition, the environment and farmer welfare.
• Significance: Given that staples may typically constitute 70% of a meal and are often eaten three times a day, diversifying them can have a pronounced impact on overcoming malnutrition and poverty and coping with climate change and environmental degradation.
• This would contribute to the Sustainable Development Goals (SDGs) for overcoming poverty and hunger (SDG 1 and 2), responsible consumption and production (SDG 12), along with adaptation to climate change (Goal 13). The approach taken will include gender equality (SDG 5) and action through partnerships (SDG 17).
• The Smart Food initiative is founded by the International Crops Research Institute for the Semi-Arid-Tropics (ICRISAT) and aims to build food systems where the food is good for you (highly nutritious), good for the planet and good for the smallholder farmer. It is an initiative which will initially focus on popularizing millets and sorghum.

Future potential:
• This new partnership strengthens collaborations between Asia and Africa and can open up opportunities to join forces at any point along the value chain, from consumers through to processors, chefs through to farmers, researchers and others.

8.31 Sousa plumbea - Indian Ocean Humpback Dolphin

• A pod of Humpback Dolphins was spotted near the Bandra-Worli sea link in Mumbai.

Habitat:
• The Indian Ocean Humpback Dolphin occurs within the Indian Ocean from South Africa to India.
• These dolphins usually live in shallow, coastal waters.
• The habitat preference of the dolphins for shallow waters places them in some of the world's most intensively utilized, fished, shipped, modified and polluted waters.

Conservation Status:
• The International Union for Conservation of Nature (IUCN) categorizes the Indian Ocean Humpback Dolphin as Endangered.
• In India, Dolphins are endangered cetacean species, protected under Schedule I of the Wildlife Protection Act, 1972.
• Indian Humpback Dolphin is listed in Appendix I of The Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES).

8.32 Sustainable Catchment Forest Management (SCATFORM) project

Context:
• Tripura has launched the Sustainable Catchment Forest Management (SCATFORM) project which is undertaken with the assistance of JICA (Japan International Cooperation Agency).

Sustainable Catchment Forest Management (SCATFORM) project:
• The SCATFORM project aims to address issues such as forest cover loss and forest degradation have been mainly caused by shifting cultivation, which increases soil erosion risks on hill slopes especially in upper catchment areas.
• It would be implemented mainly in upper catchments where forest degradation and soil erosion are severe and livelihood improvement needs are high. The project aims to improve quality of forest in the catchment area by sustainable forest management, soil and moisture conservation and livelihood development.
• The activities undertaken under the project involves promotion of bamboo plantation, agroforestry based livelihood, eco-tourism development, development of value addition for bamboo and other Non-Timber Forest Product (NTFP) in order to create alternate livelihood opportunities for local communities.
• The 80 per cent of the cost is contributed by JICA and the rest would be funded by the state and central governments.
8.33 Triple drug therapy

Context:
- A pilot project to administer **triple drug therapy** with the long term aim of eradicating **lymphatic filariasis** was recently launched in Nagpur, Maharashtra. Nagpur is one of the five districts in the country and only one in Maharashtra where this triple drug therapy campaign is being launched.

**Triple drug therapy:**
- The World Health Organization (WHO) is recommending three drug treatment to accelerate the global elimination of lymphatic filariasis.
- **The treatment, known as IDA,** involves a combination of **ivermectin, diethylcarbamazine citrate and albendazole.** It is being recommended annually in settings where its use is expected to have the greatest impact.
- The third drug being used in this therapy will help control adult worms of lymphatic filariasis. Micro filariasis, which is produced by adult worms, is the cause of swollen leg. Previously the adult worms were sterilized by drugs and remained inactive for a year. Now that period will increase to two years.
- The plan is to administer these drugs for two consecutive years. The life of the adult worm is hardly four years, so it would die a natural death without causing any harm to the person.

**Need for and significance of the therapy:**
- Lymphatic filariasis poses a grave threat to India. Over 40% of worldwide cases are found in India. Since 2004, two drug therapy for lymphatic filariasis has been in place but the addition of the third drug now will give a boost to the overall campaign.
- India has missed earlier deadlines to eradicate the disease by 2015 and 2017. The global deadline now is 2020 and the three drug approach may help the country get there.

**Lymphatic filariasis:**
- Caused by infection with parasitic worms living in the lymphatic system. The larval stages of the parasite (microfilaria) circulate in the blood and are transmitted from person to person by mosquitoes.
- Manifestation of the disease after infection takes time and can result in an altered lymphatic system, causing abnormal enlargement of body parts, and leading to severe disability and social stigmatization of those affected.
- The parasites are transmitted by four main types of mosquitoes: Culex, Mansonia, Anopheles and Aedes.

8.34 World Malaria Report of 2018

Context:
- As per **World Health Organisation’s World Malaria Report of 2018,** India is the only country among the 11 highest-burden countries that saw substantial progress in reducing disease burden: it saw a 24% decrease in 2017 compared to 2016.

Significance:
- This shows that India has assumed a leadership role in advancing global efforts to end malaria. The country’s success provides hope to the other highest-burden countries to tackle malaria head-on.

**India’s efforts in this regard:**
- India’s progress in fighting malaria is an outcome of concerted efforts to ensure that its malaria programme is country-owned and country-led, even as it is in alignment with globally accepted strategies.
At the East Asia Summit in 2015, India pledged to eliminate the disease by 2030. Following this public declaration, India launched the five-year National Strategic Plan for Malaria Elimination. This marked a shift in focus from malaria “control” to “elimination”. The plan provides a roadmap to achieve the target of ending malaria in 571 districts out of India’s 678 districts by 2022.

Way ahead:
- The plan requires more than ₹10,000 crore. Adequate investment combined with coordinated action between governments, civil society and philanthropic donors is imperative to achieve this goal. Since health is a State subject, State governments across the country shoulder a special responsibility in tackling the disease.

Durgama Anchalare Malaria Nirakaran (DAMaN) initiative:
- Among states, Odisha’s Durgama Anchalare Malaria Nirakaran (DAMaN) initiative is significant.
- The initiative aims to deliver services to the most inaccessible and hardest hit people of the State. The initiative has in-built innovative strategies to combat asymptomatic malaria.
- The programme is jointly implemented by Indian Council of Medical Research-National Institute of Malaria Research (ICMR-NIMR), National Vector Borne Disease Control Programme (NVBDCP), Odisha and Medicines for Malaria Venture (MMV).