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POLITY, GOVERNANCE AND PUBLIC POLICY

Criminal Law (Amendment) Bill

In News: Lok Sabha has passed the Criminal Law (Amendment) Bill, 2018.

Key Highlights

- This Bill is in response to the recent ordinance promulgated by Union Gov. for the death penalty for the rape of girls below age 12.
- The Bill amends the IPC, 1860 to increase the minimum punishment for rape of women from seven years to ten years.
- The Criminal Law (Amendment) Bill 2018 enhances the minimum sentence for offence of rape against girl children of all three age categories (0-12, 12-16, 16-18).
- Under new law, if the victim is under 12 years of age, the culprit shall face minimum sentence of 20 years, up from 10 years previously and the maximum punishment is death penalty.
- Rape of girls below the age of 16 years is punishable with imprisonment of twenty years or life imprisonment.
- Under this bill repeat offenders will be punished with life imprisonment or death.

Key Issues and Analysis

- The Bill amends the IPC, 1860 to increase the punishment for rape of girls.
- However, punishment for rape of boys has remained unchanged. This has resulted in greater difference in the quantum of punishment for rape of minor boys and girls.
- POSCO Act was gender-neutral while the new law pertains to girls specifically.
- There are differing views on death penalty for rape. Some argue that death penalty has a deterrence effect on the crime and therefore helps prevent it.
- Others argue that death penalty would be disproportionate punishment for rape.

Criminal Laws in India

- The Criminal Law of India is divided into two categories.
 - Substantive Law
 - Procedural Law
- Substantive Law provides for the definitions of various offences and prescribes punishments for the respective offences. The Indian Penal Code, 1860 (IPC) falls under the Substantive Law.
- Procedural Law provides a mechanism for the enforcement of the Criminal Law. The Code of Criminal Procedure, 1973 comes under this category.

Provisions of Fast Track Court

- The Bill provides for time-bound investigation in cases of rape of girl children. The investigation into rape of a child must be completed within two months.
- The case is to be tried in a fast track court and any appeal against a sentence by the trial court must be disposed of within six months.
- Under new law accused is not entitled to anticipatory bail, in offences of rape of child less than 16 years of age.

State government's Response

- The Madhya Pradesh Assembly unanimously passed its DandVidhi (Madhya Pradesh Sanshodhan) Vidheyak on December 2017.
- It has proposed amendments to sections of the IPC and CrPC, and was waiting for the President's assent when the Centre passed the Ordinance.
- This month, courts in the state have passed two death sentences under provisions of the Ordinance.
- The Rajasthan government had passed its Criminal Laws (Rajasthan Amendment) Bill in March. It introduced sections 376AA (rape for girls up to age 12) and 376DD (gangrape for girls up to age 12), with both offences punishable with death.
- Haryana and Arunachal Pradesh too had passed their Bills in March, with similar provisions.
- After the Ordinance came, Haryana informed the Centre that the state was adopting the law.

Anticipatory Bail

- Under Section 438 of the Criminal Procedure Code there is a provision for a person to seek 'Anticipatory Bail'.
- This means that an individual can seek or request to get bail in anticipation or in expectation

of being named or accused of having committed a non-bailable offence.

- Anticipatory bail is meant to be a safeguard for a person who has false accusation or charges made against him/her, most commonly due to professional or personal enmity.

POCSO Act.

- The Protection of Children from Sexual Offences Act (POCSO Act) 2012 was established to protect the children against offences like sexual abuse, sexual harassment and pornography.
- The Act defines different forms of sexual abuse which includes penetrative and non-penetrative assault.
- Under certain specific circumstances POCSO states a sexual assault is to be considered aggravated if the abused child is mentally ill or when the abuse is committed by a person in a position of trust or authority of the child.
- These persons includes:
 - member of the armed forces or security forces
 - Public servant, police officer, teacher, doctor, a person-management or staff of a hospital.
 - Family member of victims, — whether Government or private.
- The Act defines a child as any person below eighteen years of age.
- Under this act it is legally mandatory of a person aware of the offence to report the sexual abuse. In case he fails to do so, the person can be punished with imprisonment or fine.
- There are provisions of special court and protection of re-victimization under the judicial process

Restoration of SC/ST (PoA) Act Provisions

In News

- Centre has decided to restore the original provisions of Scheduled Castes and Scheduled Tribes (Prevention of Atrocities) Act, 1989.
- It comes in response to an earlier verdict of Supreme Court on the Act.

Recent Supreme Court Verdict

- Supreme Court of India issued directions to prevent the misuse of provisions of Scheduled Castes and the Scheduled Tribes (Prevention of Atrocities) Act 1989 (SC/ST Act).
- The 1989 Act penalises casteism insults and even denies anticipatory bail to the suspected offenders.
- Supreme Court of India issued guidelines for police officers on how to ensure that innocent persons, especially public officials, are protected from false complaints.
- It said a Deputy Superintendent of Police should hold a preliminary inquiry into complaints to rule out their being false or motivated ones.
- The ruling also said public servants should not be arrested under the Act without the permission of their appointing authority.
- Other private citizens should not be arrested without the approval of the District Senior Superintendent of Police.
- It issued some guidelines to protect people against arbitrary arrests under the Act.
- It directed that public servants could be arrested only with the written permission of their appointing authority.
- In the case of private employees, the Senior Superintendent of Police concerned should allow it.
- A preliminary inquiry should be conducted before the First Information Report (FIR) was registered.
- This was to check if the case fell within the ambit of the Act, and whether it was frivolous or motivated.

Social Discourse

- The verdict faced sharp criticism from Dalit leaders and political parties across the country.
- Dalit groups claimed that the court's order diluted the true spirit of the law.
- Despite widespread opposition, the court refused to stay its ruling.
- So dalit groups demanded an ordinance or an Amendment Bill to restore the provisions.
- Following widespread protest, the Union Cabinet had given its nod to the Amendment Bill.

Acknowledged Abuse

- The Bench said there was “acknowledged abuse” of the power to arrest under the Act.
- The court said that the law is therefore used to rob a person of his personal liberty merely on the unilateral word of the complainant.
- It said that the public servants find it difficult to give adverse remarks against employees for fear that they may be charged under the Act.
- It also observed that no Parliament could allow arrest without a fair procedure and Article 21 has to be read into every provision of law.

Amendment Bill's aim

- The Amendment Bill seeks to insert three new clauses after Section 18 of the original Act. These are:
 1. preliminary enquiry shall not be required for registration of an FIR against any person
 2. Arrest of a person accused of having committed an offence under the Act would not require any approval
 3. Provisions of Code of Criminal Procedure on anticipatory bail shall not apply to a case under this Act, "notwithstanding any judgment or order of any Court"
- The Centre's decision to amend the provisions of the Act appears both reasonable and unavoidable at this juncture.

Decision on Appointment of SC Judge

In news: Union government has cleared the elevation of Justice K.M. Joseph to the Supreme Court.

Appointment of Supreme Court judge

- The Chief Justice of India and the Judges of the Supreme Court are appointed by the President under clause (2) of Article 124 of the Constitution.
- Whenever a vacancy is expected to arise in the office of a Judge of the Supreme Court, the Chief Justice of India will initiate proposal.
- The recommendation will be forwarded to the Union Minister of Law, Justice and Company Affairs to fill up the vacancy.
- The opinion of the Chief Justice of India for appointment of a Judge of the Supreme Court should be formed in consultation with a collegium of the four senior-most Judges of the Supreme Court.

K.M Joseph's Appointment

- K.M Joseph was the chief justice of Uttarakhand high court.
- The five member collegium earlier recommended K.M Joseph for elevation to the SC, and it was reiterated again.
- Union government has made unusual delay in first responding to the Collegium's recommendation, and later it took more time for reconsideration of the proposal.
- Union government explained the delay was due to invocation of the seniority or diversity norms in appointments to the higher judiciary.
- It also said that his elevation would give excessive representation to Kerala, as he belongs to the state.

Seniority within the Supreme Court

- As per the convention seniority has become the main criteria for elevation of a SC judge to Chief Justice of India (CJI).
- Seniority within the SC is decided on the basis of date of induction in the court, and the time of induction if dates coincide.
- In short, a judge who takes oath earlier becomes senior to another who takes oath later – the order is decided by order proposed by the Collegium.
- But as the government can withhold names from the collegium's list till the second reiteration, the seniority can be effectively altered by the government.
- Notably, the current "CJI Deepak Mishra" and "judge Chelameswar" were inducted into the Supreme Court on the same day.
- But as Mr. Mishra was administered oath 1st, it secured him the position of CJI and Mr. Chelameswar had retired recently without becoming CJI.

Way Forward

- The Centre had no option but to elevate the Uttarakhand High Court Chief Justice once the collegium reiterated its original recommendation after the Law Ministry returned his name.
- But it will require more outreach by the government to assuage the anxieties expressed by senior judges in letters written to the CJI.
- Given this past turbulence, the government will be watched carefully for the role it plays or doesn't play in the future in the next big transition in the Supreme Court.

Motor Vehicles (Amendment) Bill

In News:

- The Motor Vehicles (Amendment) Bill, passed last year by the Lok Sabha, now faces opposition in the Rajya Sabha.

Need for the Amendments

- The Motor Vehicles (MV) Act, 1988 governing motor vehicles and transport is largely outdated. It lacks the provisions that are necessary to manage the present fast motorisation.

- Especially, the passenger transport sector operating for inter-city services has grown with vested interests.
- This is a result of exploitation of the lack of transparency and regulatory bottlenecks.
- Investments in the urban metro rail systems are yielding poor results in the absence of last-mile connectivity services.
- These lacunae have to be addressed to improve road safety, ensure orderly use of vehicles and expand public transport.

Key Provisions of New Bill

- **License** - The Bill seeks to take the license issuing process online.
- Tests for driving licences will be automated, and learner's licences will be issued online.
- Aadhaar will be mandatory for getting a driving licence and vehicle registration.
- The time limit for renewal of driving licence is increased from one month to one year before and after the expiry date.
- **Compensation** - Government will provide a compensation of Rs 2 lakh or more to the victim's family for deaths in hit-and-run cases (currently - Rs 25,000)
- The time limit would be 6 months for application of compensation to the Claims Tribunal with regard to road accidents.
- **Fund** - A Motor Vehicle Accident Fund is proposed to be created.
- It will provide compulsory insurance cover to all road users in India for certain types of accidents.
- **Violation** - In traffic violations by juveniles, the guardians or owner of the vehicle would be held responsible.
- It proposes three-year jail for parents of minors drivers causing fatal accidents
- However, they could prove the offence was committed without their knowledge or they tried to prevent it.
- The registration of the motor vehicle in question will be cancelled.
- The juvenile will be tried under the Juvenile Justice Act.
- **Penalties** - The penalties for violations have been increased substantially from the present amounts.
- E.g. Drunk driving - from Rs 2,000 to Rs 10,000, rash driving from Rs 1,000 to Rs 5,000, driving without a licence - from Rs 500 to Rs 5,000
- **Good Samaritans** - People coming forward to help accident victims will be protected from civil or criminal liability.
- It will also be optional for them to disclose their identity to the police or medical personnel.
- **Accountability** - Contractors, consultants and civic agencies will be accountable for faulty design, construction or poor maintenance of roads leading to accidents.
- The government can recall vehicles whose components or engine do not meet the required standards.
- Manufacturers can be fined up to Rs 500 crore in case of sub-standard components or engine.
- It will be mandatory to alter vehicles to make them suitable for specially-abled people.
- **Aggregators** - The Bill defines taxi aggregators as "a digital intermediary or market place for a passenger to connect with a driver for the purpose of transportation." E.g. Uber, Ola
- The 2016 Bill required State governments to issue licences to aggregators as per guidelines issued by the Central Government.
- The 2017 Bill made it optional for State governments to follow central guidelines.
- Aggregators, however, now have to be compliant with the Information Technology Act, 2000.
- **Insurance** - The Bill removes the cap on liability for third-party insurance.
- The 2016 Bill had capped the maximum liability at Rs 10 lakh in case of death and Rs 5 lakh in case of grievous injury.
- Third-party offers coverage against claims of damages and losses incurred by a driver who is not the insured.

Road Accident Statistical observation

- Rise in number of vehicles has outpaced increase in road length. National Highways have the most number of accidents/km of road length.
- Goa has the most number of accidents per lakh population; which is five times the national average.
- Kerala has the most persons injured per lakh population. Tamil Nadu has the most fatalities per lakh population.
- Urban areas have more accidents, fatalities and injuries per lakh persons. Most accidents occur during evening and morning rush hours

- Most victims are 18 to 34 years old. 9% of accidents involve drivers without a license
- Two wheelers are involved in over a fourth of all accidents
- 77% of accidents occur due to driver's fault, of which 47.9% are due to over speeding and 3.3% due to drunken driving.

State governments' concerns

- Some state governments are concerned about the new provisions, Sections 66A and 88A. This will empower the Centre to form a National Transportation Policy.
- Notably, it would be through a process of consultation, and not concurrence.
- It will also enable Centrally-drafted schemes for national, multi-modal and inter-State movement of goods and passengers, for rural mobility and even last-mile connectivity.
- The provisions would bring in a new paradigm that would overhaul the sector, and hence the States see it anti-federal.
- Clearly the issue is not one of legislative competence as the subject is in the Concurrent List.
- So clearly, parliament can make a law defining powers available to the States.
- The opposition is thus more due to the perceived shift of power from the States to the Centre.

Way Forward

- Well-run bus services have to be enabled to operate across States with suitable permit charges.
- This is an imperative to meet the growing needs of a transforming economy.
- The regulatory changes could contribute to fostering competition, reducing fares and increasing services.
- Other provisions on road safety, fines and curbing corruption need proper enforcement.
- A professional accident investigation agency has to be put in place to determine the best practices.
- In all, an equitable regulatory framework has to be created for the orderly growth of transport services.
- States should thus reconsider their opposition to amendments to the Motor Vehicles Act.
- The passage of the Bill would also help meet the UN mandate to reduce road accidents up to 50% by 2020.

Commercial Courts Bill

In News: The Lok Sabha has passed the Commercial Courts, Commercial Division and Commercial Appellate Division of High Courts (Amendment) Bill, 2018.

Key highlights

- The Commercial Courts Act, 2015 provides for commercial courts and commercial divisions of high courts to adjudicate commercial disputes with a value of at least one crore rupees.
- The Bill reduces this limit to three lakh rupees.
- The Bill allows state governments to establish commercial courts at the district level, even in territories where high courts have ordinary original civil jurisdiction.
- In areas where high courts do not have original jurisdiction, state governments may set up commercial appellate courts at the district level to consider appeals from commercial courts below the level of a district judge.

Analysis

- The Bill reduces the pecuniary jurisdiction of commercial courts from one crore rupees to three lakh rupees.
- It may be argued that the transfer of all commercial disputes above three lakh rupees may overburden the commercial courts and defeat the objective with which they were established.
- The Act enables the creation of commercial divisions in High Courts, and commercial courts at the district level, to adjudicate commercial disputes (such as, disputes related to construction contracts and contracts for provision of goods and services).

Reduction in pecuniary limits:

- Under the Act, commercial courts and commercial divisions in high courts can decide disputes with a value of at least one crore rupees.
- The Bill reduces this limit to an amount of at least three lakh rupees or a higher value to be notified by the central government.

Establishment of certain commercial courts:

- Under the Act, state governments may constitute commercial courts at district judge level, after consulting the concerned High Court.
- The Act bars such commercial courts to be constituted in cases where the High Court has the original jurisdiction to hear commercial cases.

- The Bill removes this bar and allows states to constitute commercial courts where high courts have ordinary original civil jurisdiction.

Commercial Appellate Courts:

- In areas where High Courts do not have ordinary original civil jurisdiction, state governments, may notify commercial appellate courts at the district judge level.
- Appeals against the order of a commercial court (below the level of a district judge) will lie before the Appellate Court.

Mediation:

- A provision for mandatory mediation has been provided in those cases where no urgent relief is being sought by the parties to the dispute.
- The mediation may be conducted by authorities constituted under the Legal Services Authorities Act, 1987 (such as the National and District Legal Services Authority).
- The mediation process is required to be completed within a period of three months (may be extended by another two months).
- A signed settlement between the parties will have the same effect as an arbitral award under the Arbitration and Conciliation Act, 1996.

Counterclaims not to be transferred:

- Under the Act, if a counterclaim was filed in a commercial dispute of at least one crore rupees in a civil court, the civil court could transfer the suit to a commercial court.

ECONOMIC AFFAIRS

Repo Rate Hike

In News: The monetary policy committee (MPC) of the RBI has decided to increase the repo rate by 25 basis points.

Repo rate

- Repurchase rate or the repo rate is the rate at which the RBI lends money to commercial banks.
- This is availed by the banks in the event of any shortfall of funds.
- Reverse repo is the rate at which the RBI borrows money from commercial banks within the country.
- RBI has now increased the repo rate by 25 basis points to 6.5% in the recent MPC meet. Consequently reverse repo is adjusted to 6.25 per cent.

RBI's Inflation Outlook

- **Projections** - RBI looks confident of the growth prospects and has estimated the FY18-19 growth to be 7.4% (FY 2017-18 level was only 6.6%)
- Notably, it has sighted improved "Foreign Direct Investment" (FDI) flow and pick-up in services and manufacturing growth as reasons for optimism.
- Hence, in line with the projection in its June review, RBI in its recent review again revised its 2H FY19 inflation forecast upwards by 10 bps to 4.8%.
- **Actions** - RBI's "Monetary Policy Committee" (MPC) has also raised the repo rate by 25 basis points (bps) for the second time in a row.
- This has reiterated RBI's position as an inflation warrior by sticking to the path of maintaining the 4+2% inflation target.
- Clearly, it is watchful of inflationary pressures like firming household expectations, monsoon spread, increase in crop MSP and fiscal risks

Driving factors

- Fear of rising inflation rates has been a major factor for raising the policy rates.
- According to the RBI, inflation outlook is likely to be shaped by several factors:
 - The foremost is the government's decision to increase the minimum support price (MSP) for kharif crops.
 - The gradual impact of HRA (house rent allowance) revision by state governments could push inflation further up.
 - There is a continuing volatility in crude oil prices and is also vulnerable to geopolitical tensions.
 - Rainfall has so far been 6% below the long-period average and deficient over a wider area than last year.
 - Regional imbalances in rainfall could pose risks to paddy output and eventually reflect in CPI inflation.
 - The recent round of the RBI's survey of households also reported a rising inflationary trend.

- Moreover, RBI's inflation projection stands at 5% in the first quarter of 2019-20.
- It has projected inflation at 4.6% in Q2 and 4.8% in the second half of the financial year 2018-19, with risks evenly balanced.
- So the overall inflation trend demands that India opt for a tight policy (higher rates).

Currency

- The recent global trade war has resulted in competitive currency devaluation.
- In the event of a currency war, the domestic currency has to give way for depreciation pressure of the region.
- But depreciation is likely to contribute to the vulnerability of the economy. Thus, avoiding such risks is essential for ensuring macroeconomic stability.
- It is also crucial for maximising the chances of a growth profile of 7 to 7.5% in India.
- A rate hike by the central bank thus attempts to strengthen the currency and avoid getting affected by the currency war.

Recovery

- The MPC was for long wary of an interest rate hike due to the impact it could have on growth prospects.
- However, there was an increased output of the eight core industries in the recent period.
- This suggested that the economic recovery was back on track.
- It was thus convincing for MPC to now focus on containing headline inflation.
- Given all these, the rate hike seems to be a right measure at the right time to ensure growth as well as avoid risks.

RBI's Neutral Stance

- Given the projected inflationary risks, there were widespread demands for higher policy rates. But the RBI has maintained fairly a neutral policy stance.
- This means that RBI has made only a marginal increase which is proportionately lesser to the inflation projections.
- One of the reasons is that the risks that are cited as the factors for the rate hike are not well established.
- Primarily, the CPI inflation risks are only a projection, though informed, with a fair bit of uncertainty.
- Hence a neutral stance would help accommodate the upcoming domestic and external uncertainties.
- This could be in relation with the
 - impact of government's policies
 - oil price direction
 - trade disputes and impact on global growth
 - US rate trajectory
- So according to RBI, a neutral stance would keep the policy options open for any future economic scenario.

India's Banking Scenario

- Public sector banks (PSBs) that comprise 70% of the total banking system, hamstrung by poor balance-sheets, are yielding space to private players.
- The government and the RBI have leaned heavily in favour of the insolvency bankruptcy code (IBC) to resolve the NPA problem.
- Also, the RBI has put 11 PSBs in the prompt corrective action (PCA) framework list and reportedly six more are likely to be added to this list.
- RBI's recent "Financial Stability Report" (FSR) estimates that the gross NPA ratio (bad loans as a percentage of total loans) will reach 12.2% by March 2019.
- More significantly, for PSBs the gross NPA ratio may increase from 15.6% in March 2018 to 17.3% by March 2019 - indicating severe stress.
- In this context, private banks will have to do the heavy lifting in meeting the credit needs of an economy which is beginning to recover.

Challenges for Economic Potential

- The latest FICCI survey shows that capacity utilisation levels are in the 75-80% range for sectors such as auto, chemicals, electronics, leather and footwear, machine tools, metals, paper products and textiles.
- Considering this, the funding pattern calls for change – funds has to now move away from working capital loans and cater to capacity enhancement.
- Hence, while increase in the cost of funds (due to 25 bps raise by RBI) is being debated, the real issues will be fund availability for capacity enhancement.

- This can be ushered in only through a conscious policy push as the Indian banking sector is in a deep mess.

Prompt Corrective Action

- To ensure that banks don't go bust, RBI has put in place some trigger points to assess, monitor, control and take corrective actions on banks which are weak.
- The process or mechanism under which such actions are taken is known as Prompt Corrective Action (PCA).

Financial Stability Report

- "Financial Stability Report" (FSR) is released by the RBI.
- It reflects the overall assessment of the stability of India's financial system and its resilience to risks emanating from global and domestic factors.
- The Report also discusses issues relating to developments and regulation of the financial sector.

Way Forward

- India's investment cycle is poised for a cyclical upswing from FY19, after years of sub-par performance.
- In this context, it is important to incentivising and nurturing sectors in need of funds before the cost of funds begins to bite.
- Notably, this is all the more significant considering the global headwinds, which looks risky due to rising political and trade tensions, and currency wars.

Re-Orientation of State Fiscal Architecture

In News: The annual study of State budgets has been released by the Reserve Bank of India.

RBI study

- State finances during 2018-19 shows that States have budgeted a substantial fiscal correction in terms of fiscal deficit and revenue deficit relative to GDP.
- The fiscal deficit in budget estimates for 2018-19 reported by all States put together stood at 2.6 per cent of GDP with a revenue surplus of 0.2 per cent of GDP.
- This is a correction from 3.1 per cent of the fiscal deficit for 2017-18 and 3.5 per cent in 2016-17.
- GST is turning out to be a game-changer of sorts, The RBI report says States have budgeted GST revenues at 2.6 per cent of GDP as against 1.6 per cent in 2017-18.

Concerns with State Budget

- There is higher level of fiscal deficit budgeted by six of the major States, namely Goa (4.8), Kerala (3.2), Madhya Pradesh (3.3), Odisha (3.4), Punjab (3.9), Telangana (3.5), and three States in the "special category", namely, Jammu and Kashmir (4.5), Meghalaya (3.4), and Nagaland (3.2).
- This comes alongside the GST revenue stream on one hand and pressures on the State budget caused by agriculture debt waivers, implementation of the Seventh Pay Commission and a higher recourse to market borrowing on the other.
- It may be noted that the fiscal deficit (revised estimates) has consistently crossed the FRBM threshold of 3 per cent for the third consecutive year now.
- There is a decline in the developmental expenditure to GDP ratio by 0.3 percentage point.
- To the extent that borrowing cost is higher than return on capital, the situation will eventually lead to an unsustainable pattern of expenditure and a rising debt-to-GDP ratio.

reasons behind this scenario

- This is largely attributed to a lower order of developmental expenditure in critical sectors like rural development, transport and communication.
- The real conundrum is States that have a revenue surplus and, at the same time, a higher fiscal deficit, perforce driven to higher borrowing.
- State governments have taken recourse to higher borrowings to provide for higher capital expenditure being guided by the philosophy that all capital expenditure is good and development oriented.

Way Forward

- The Central government has a revised FRBM framework with the fiscal deficit alone as the target variable, which will be mirrored sooner rather than later in the States.
- With revenue deficit off the radar and fiscal deficit as the sole target variable, it will be easier to fit the norm by the simple act of reducing developmental expenditure even more.
- States must follow the direction of expenditure to build human capital through education and health expenditure for long-term growth.

- GST collections have helped fiscal consolidation and likely to bring more revenues as the GST system further stabilises and becomes all-pervasive.
- Thus focussing on making State budgets more responsive, accountable and geared to the needs of the people will give a thrust to growth and development across the nation.

IL&FS Acquisition

Context

- Life Insurance Corporation(LIC) has been slated to bail out Infrastructure Leasing & Financial Services Limited (IL&FS) soon.
- In this context, the government is facing criticism for making LIC to acquire stakes in multiple failing Public Sector Undertakings (PSUs).

Present situation in IL&FS

- Infrastructure Leasing & Financial Services Limited (IL&FS) is a PSU.
- It is jointly owned by the State Bank of India (SBI), LIC, ORIX (Japan), Abu Dhabi Investment Authority and Greenspring Associates.
- Notably, the India's longest tunnel "The Chenani-Nashri Tunnel", which was opened for traffic in 2017, was constructed by it.
- The company is classified as systematically important due to its projects.
- But IL&FS and its maze of subsidiaries have not made profits for almost a decade now and are in deep financial dept.

bailout plan and problems

- **LIC's Role** - Presently, as LIC's profits are strong, the central government is nudging it to acquire stakes in failing PSUs to bail them out.
- While the LIC currently holds 25% shares in IL&EF, it has been slated to acquire more stakes and take up a greater role in IL&EF's operations.
- Notably, LIC is already in the process of acquiring the loss making IDBI Bank, presumably due to government's insistence.
- **The Problem** - LIC is India's largest insurer and the public trust it with the belief that it would be secured through prudent investments.
- Notably, there are more than 200 million policy holders in LIC, who would want their money back at times of emergency.
- But LIC, like other well performing PSUs is being nudged to bail out multiple failing PSUs, a trend that might harm its balance sheets.
- In other words, policyholder's money has been shifted to make the government's holdings look better.

Analysis

- **Fiscal Risks** - Due to its financial strengths, LIC has been a stalwart in acquiring public sector companies that the government puts up for disinvestment.
- This is in effect underwriting the purpose of disinvestment and is helping in channelizing depositor money to finance government's fiscal deficit.
- Governments should not dip into its people's saving (like LIC deposits) to fuel its short-term goals and to sustain its borrowing spree.
- **Regulation** - Deposits seeking long term returns should be responsibly managed by seeking appropriately safe and remunerative investment options.
- Considering the LIC's reckless investment outlook, Insurance Regulatory and Development Authority of India (IRDAI) should take notice.
- But the IRDAI has largely been absent in the context of these acquisitions by the LIC, which is not a healthy sign.

Highlights of GST Council Meet

In News: GST council has taken highlight decision on MSMEs

Areas discussed in the council meeting

- GST Council planned for a proposal to incentivise digital payments in the form of cash back of 20 per cent of the GST paid on business-to-consumer transactions.
- The GST Council has instead decided to study how proper incentives might aid in the shift to digital payments through a pilot project that uses BHIM and the UPI to incentivise the payment of tax in cash, with a Rs 100 cap.
- It shows a shift in emphasis from rushing through with decisions to taking time to assuage the concerns of various states.
- In the previous meeting, some decisions were sent for approval without the due process such as referral to a fitment committee.

- But the recent meeting of the GST Council showed that the spirit of cooperative federalism is back on track.

Highlights Decision Taken on MSMEs

- There are various demands from the MSME side such as easing the compliance burden on MSMEs having a turnover of less than Rs 15 million.
- One argument is that since MSMEs with an annual turnover of less than Rs 15 million were exempt from paying the excise tax, they should be exempt from the GST too since it has replaced excise now.
- The MSMEs have also expressed a desire for cheaper access to the specialised software package that is required for the proper maintenance of accounts related to the GST.
- Another demand is that the minimum level for the e-way bill be raised from Rs 50,000 to a full Rs 100,000.
- GST council has decided to set up a panel under the minister of state in the Union finance ministry that would include senior ministers from various state governments to address the concerns in MSME sector.

Reasons Behind this move

- Over the past year, some MSMEs have consistently pointed out that there are many ways in which they have been disadvantaged under the new system.
- Union government's intention is to look into the troubles of the MSME sector, which has complained that it has found itself particularly uncompetitive after the implementation of the GST.
- The relative inability of this sector to cope with the transition to the new indirect tax regime has had a serious effect on the creation and preservation of jobs in the country.
- Going into an election year, the ruling government cannot afford to antagonise owners or workers in the MSME sector they will rely on heavily for support at the time of the polls.

New Anti-corruption Bill

Context

- The current bill "Prevention of Corruption (Amendment) Bill, 2018" passed by both houses of the parliament recently.

Background

- Currently, offences related to corrupt practices of public officials are regulated by the Prevention of Corruption Act, 1988.
- The Prevention of Corruption Act, 1988 covers taking a bribe, criminal misconduct and mandates prior government sanction to prosecute a public official.
- In 2008, an amendment Bill was introduced However, that Bill lapsed. While Prevention of Corruption (Amendment) Bill, 2013 was sent to a Parliamentary Standing Committee for discussions.
- While committee gave its report in 2014, the Law Commission subsequently came up with an extensive report on the same in 2015.
- Finally, a Select Committee of Rajya Sabha studied the amendments and finalised its recommendations in August 2016, and then a new bill was drafted.

Key Highlights of the Bill

- The Prevention of Corruption (Amendment) Bill, 2013 amends the Prevention of Corruption Act, 1988.
- The Bill redefines criminal misconduct to only cover misappropriation of property and possession of disproportionate assets.
- The Bill modifies the definitions and penalties for offences related to taking a bribe, being a habitual offender and abetting an offence.
- Powers and procedures for the attachment and forfeiture of property of public servants accused of corruption have been introduced in the Bill.
- The Act requires prior sanction to prosecute serving public officials. The Bill extends this protection to former officials.

Redefining the Terms

- The Bill makes specific provisions related to giving a bribe to a public servant, and giving a bribe by a commercial organisation.
- This bill redefines the following provisions accordingly
- **Bribe** - The Bill describes bribe as an "undue advantage", on the lines of "United Nations Convention against Corruption", which India ratified in 2011.
- Any "gratification" other than legal remuneration (official salaries and perks) received by a public servant can be construed as an undue advantage.

- Notably, “Gratification” was stated to include things that can’t be measured in terms of money, as well as “gifts”.
- As the scope for investigating agencies to misuse the vast provisions to harass public servants is high, the need for precautions was stressed.
- **Bribe Giver** - The new law seeks to punish collusive bribe givers too with up to 7 years in jail and further fined accordingly.
- Further, the Select Committee wanted courts to decide the minimum punishment for bribe givers on the merits of the specific case.
- In contrast to collusive bribe givers, the bill states that ones who are forced to bribe (coerced bribe givers) to access services shall not be prosecuted.
- **Problems** - Coerced bribe givers are required to inform the officials of the same within a week’s time since the bribe was given to gain the exemption.
- As the situation might not be favourable for all coerced bribe givers to intimate officials within a week, some MPs voiced that the time needs to be extended.
- Further, activists have warned that the government officials might delay providing services till 7 days from the receipt of bribe to escape being reported.

Other Aspects

- Earlier, the punishment for corruption was “a minimum of 6 years, which was extendable up to 3 years fine”.
- This has been enhanced to a minimum of 3 years, which is extendable up to 7 years with fine, which can go up to 10 years for a repeat offender”.
- Under the new bill, public servants processing assets disproportionate to his/her legal sources of income will be deemed to have committed a crime.
- To establish that the public servant had disproportionate assets, two things would have to be proven:
 - i) the possession of monetary resources or property disproportionate to his known sources of income, and
 - ii) the intention of the public servant to enrich himself illicitly.
- Further, law enforcers have been empowered to immediately attach such property of a public servant, until a proper explanation is received.

Analysis

- There are diverging views on whether bribe giving under all circumstances must be penalized. Some have argued that a coerced bribe giver must be distinguished from a collusive bribe giver.
- The Bill has deleted the provision that protects a bribe giver from prosecution, for any statement made by him during a corruption trial. This may deter bribe givers from appearing as witnesses in court.
- The Bill has replaced the definition of criminal misconduct. It now requires that the intention to acquire assets disproportionate to income also be proved, in addition to possession of such assets.
- Thus, the threshold to establish the offence of possession of disproportionate assets has been increased by the Bill.
- By redefining the offence of criminal misconduct, the Bill does not cover circumstances where the public official:
 - uses illegal means,
 - abuses his position, or
 - Disregards public interest and obtains a valuable thing or reward for himself or another person.
- Under the Act, the guilt of the person is presumed for the offences of taking a bribe, being a habitual offender or abetting an offence.
- The Bill amends this provision to only cover the offence of taking a bribe.

ARC Recommendation

- In 2007, the 2nd Administrative Reforms Commission (ARC) made certain recommendations related to the
 - **Offences related to corruption:**The following offences must be included in the Act:
 - Gross perversion of the Constitution amounting to willful violation of oath of office;
 - Abuse of authority by unduly favoring someone;
 - Obstruction of justice;
 - Squandering public money.
 - **Bribery:**The Act must provide for a special offence called ‘collusive bribery’, by the public servant and the beneficiary of the decision.
- The punishment should be double than that of other cases of bribery.

- **Prior sanction for prosecution:** Prior sanction should not be necessary for prosecuting a public servant who has been caught red handed, or in cases of possession of disproportionate assets.
- **Private sector institutions/NGOs**
 - Private sector providers of public utility services should be included in the Act.
 - NGOs who receive substantial funding from the government should also be covered.
- In 1999, the Law Commission of India recommended that a separate Bill related to forfeiture of property of corrupt public officials be introduced.

The UN Convention against Corruption

- In 2011, India ratified the United Nations Convention against Corruption, and agreed to bring its domestic laws in line with the Convention.
- According to UN Convention
 - **Bribery of foreign public officials:** Criminalizes giving a bribe to a foreign public servant to obtain or retain business.
 - **Bribery in the private sector:** Includes giving and taking a bribe by the private sector entity.
 - **Compensation for damage:** Those who have suffered damage as a result of an act of corruption have a right to obtain compensation against those responsible for that damage.

Way Forward

- While it is desirable for corruption cases to be concluded between two and four years from the date of filing the case, it usually gets very delayed.
- The new law mandates pre-certification by a “competent authority” for prosecuting government functionaries at all levels, in order to avoid misuse.
- As this immunity was earlier available only to officials of the level of Joint Secretary and above, this is likely to slow down prosecution.
- Nonetheless, as a maximum of 3 months’ time has been set for approval/denial of permission for prosecution, the government claims it won’t slow cases.

Drawbacks of SEBI’s Rule

In News: Securities and Exchange Board of India is planning to make new changes in the bond market.

Bond market Vs. Banks

- In the bank-based system, banks play a dominant role in mobilising savings, allocating resources among the various sectors of the economy and regions of a country, and providing risk management facilities.
- Developed countries such as Japan, Germany, France and Italy and developing countries such as Argentina, China, India and Pakistan follow Bank based system.
- In a market-based system, the intermediary role of banks is reduced to a great extent and the investors or the savers directly park their funds with the borrowers (corporates).
- Developed countries such as US, UK, Singapore and Korea and developing countries such as Brazil, Mexico and Turkey follow the market-based system.
- Economists have found that financial systems tend to become more market-based as the economy develops.

Concerns with Recent Decision

- **Stringent regulation** - Market regulator makes it mandatory for companies with over Rs. 100 crore debt and a credit rating of ‘AA and above’ to compulsorily raise 25 per cent of their debt from the bond market.
- The move seems to be a premature one, Instead of allowing the market to function on its own based on demand and supply, there seems to be an effort to arm-twist firms to go in for a particular type of financing.
- **Investor’s attitude** - Indian savers find it comfortable to lend the funds to banks and pass on the risk management to banks.
- For this transfer of risk management, they are willing to accept lower return on their funds, Thus forcing depositors to take the market risk will not work out.
- If the investors shun the equity or bond market, it is because of their risk aversion.
- **Structural issues** - Given the highly leveraged state of corporates and the banks’ huge NPA problem, it is not good idea expect corporates not to default on bonds on maturity or interest payment.
- Any default in interest payment by the company will make the bond price plummet in the market and there may not be buyers, which makes liquidity of the bond unreliable.

Way Forward

- Market participation has to mature on its own over a period and regulators can only provide conducive environment to facilitate that.
- The basic function of SEBI is to protect the interests of investors in securities market.
- Thus forced borrowing through bond market cannot be in the interest of the investors or corporates.

CBDT's Decision on Tax Appeals

In News: Central Board of Direct Taxes (CBDT) has reportedly announced a new scheme aimed at a speedier disposal of tax appeals.

Status of Tax Appeals in India

- Every tax appeal before the CBDT comes to the First Appellate Forum (FAF) before cases move on to the Income Tax Appellate Tribunals, the high courts and finally the Supreme Court of India.
- The number of appeals before the FAF has been rising and now total over 320,000.
- As of March 31, 2018 the amount involved is over 55 per cent of estimated collections for the current financial year.
- By its recent move CBDT aims to reduce litigation and enhance the credibility of tax administration in order to secure a fair system.
- CBDT's move is with regard to dealing with issues causing tax disputes, the latest move incentivises CIT(A)s to actually further enhance assessments.
- It aims to do so by adhering to stiff timelines for disposing of cases and by instilling a sense of accountability in the whole process.

Concerns with CBDT's move

- While all measures of CBDT are commendable, the method chosen by the government to achieve it is likely to be counter-productive.
- As part of the CBDT Action Plan, Commissioners of Income Tax (Appeals), or CIT (A), will be given additional credits of two units per order in case they pass what is called a "quality" order.
- Quality orders essentially include those that strengthen the assessment order of an assessing officer and levy penalties on such orders.
- But CIT(A) levy penalties when, under law, its proceedings are supposed to be independent of the assessment process.
- Incentivising CIT(A) to enhance assessment orders introduces a conflict of interest given that the CIT(A)'s quality order will be judged by his immediate supervisor, i.e. the chief commissioner.
- It also undermines its impartiality as he or she is prejudiced against the concerned taxpayer.
- Given that such credits might well be used in determining career growth, they will lead to decisions that will increase litigation further, instead of its stated objective of reducing it.

Way Forward

- Union government took over at a time when the notion of "tax terrorism" was gaining currency.
- Over the past decade, there has been a reversal in the trend of disposing of tax cases, more cases now move up the litigation chain to the higher judiciary.
- The recent directive will only worsen the situation, and tax authorities also pay only little attention to some fundamental reasons behind a rising mountain of litigation in the first place.

INTERNATIONAL AFFAIRS

India in US's STA-1 List - Import of Dual-use Tech

In news:

- After 1½ years of negotiations, the US has eased controls on high-technology dual-use exports to India.
- The US has granted India exemption under the Strategic Trade Authorisation-1 list.

Recent Move

- India was in STA-2 list (Strategic Trade Authorisation-2), along with 7 other countries.
- These include Albania, Hong Kong, Israel, Malta, Singapore, South Africa, and Taiwan.
- India has now been elevated to the STA-1 list of countries.

India-US defence ties

- India signed the civil nuclear deal with the United States in 2008. A key objective was to gain access to high technology.
- Notably, India had been denied access, especially from the 1970s through the 90s.
- Towards the end of Obama's president ship, the US recognised India as a "Major Defence Partner".
- It committed itself to sharing technology to the same level as its closest allies and partners.
- It also agreed to collaboration for defence co-production and co-development.

Cause of delay

- The US either has military alliances such as the NATO or bilateral defence treaties with other countries.
- Hence, the status of Major Defence Partner is unique to India. Indian and American negotiators had to draw up the framework of what the status would entail.
- Given this, the export of defence and dual-use technology by the US is mostly a "political determination".
- This is driven by two factors namely US national security and the recipient's regional stability.
- Dual-use exports refer to an item or technology that can be put to both military and civilian use.

Strategic Trade Authorisation

- In 2009, Obama announced a comprehensive review of the US export control system. As part of this came the concept of Strategic Trade Authorisation (STA).
- This is a move towards a licence-free or license exemption regime. Accordingly, two lists were created namely STA-1 and STA-2.
- STA-1 and STA-2 established a hierarchy among those the US was willing to certify as "good countries".
- STA-1 countries are America's most trusted allies. It has 36 countries including NATO allies and bilateral treaty allies like Japan, South Korea, and Australia.
- The US considers the non-proliferation controls of these countries the best in the world.
- These are also among those that are part of the four multilateral export control regimes namely Nuclear Suppliers' Group; Missile Technology Control Regime Australia Group and the Wassenaar Arrangement
- STA-1 countries have licence-free access to almost 90% of dual-use technology.
- They are also eligible to import items for reasons of national security, chemical or biological weapons, etc.
- This is irrespective of whether the technology or item impacts regional stability or American national security.
- **STA-2** Countries in the STA-2 list enjoy some form of licensing exemption.
- But they cannot access dual-use items/technology that may impact regional stability, or contribute to nuclear non-proliferation, etc.
- **Others** - A vast majority of countries remain outside both STA-1 and STA-2.
- They cannot access high technology from the US without specific licences.
- They have to apply for a licence for every item on the Commerce Control List (of dual-use items).

Significance

- China, Pakistan, and Russia are on neither list.
- Albania is a NATO member, but is still in STA-II, and Israel, a major US ally, is not in STA-1.
- Given these, India joining an elite group of allies of the US is a significant move.
- India is now part of STA-1, despite not being member of all four multilateral export control regimes.
- This is thus another testament to India's non-proliferation credentials.
- India can now access 90% of defence technology and equipment for dual-use supplied by US government and its defence industry.
- It is expected to lead to greater high-technology trade and commerce.
- For Indian high-tech industry, this could open up doors for both sales and manufacturing in India.
- Third countries can also set up manufacturing units, requiring import of dual-use equipment from the US, without the license process.

Dispute Settlement in WTO

Context

- The World Trade Organisation is now amidst a crisis for ensuring a legitimate dispute settlement mechanism.
- The changes in the global trade regime and the multilateral institutions necessitate a greater role for the developing world.

Role of WTO

- The new financial trade order with the coming of Bretton Woods institutions (World Bank and IMF) demanded a trade organisation at the international level.
- It became necessary for the regulation of the international monetary system.
- It was also needed to establish multilateral rules for the settlement of trade disputes.
- Adherence to the rules was expected to serve as an important domestic incentive for governments.
- It would allow them to resist protectionist demands and provide for greater legal certainty.
- The World Trade Organisation (WTO) was created primarily to address these demands.

US's Role Been

- The US's push for the creation of WTO was mainly to pursue its own commercial interests.
- The U.S. has never truly embraced the idea of a multilateral system in which its leadership could be contested.
- Evidently the US is isolating itself from NAFTA, TPP, NATO and UNESCO in the recent times.
- In the trade negotiations too, the U.S. put forward excessive demands that countries are unprepared to meet.
- So the current crisis with the WTO dispute settlement system largely follows this unequal power formula.

Crisis with WTO

- The nature of the trade disputes is now increasingly getting hyper technical.
- Despite this, the WTO currently faces a trade dispute settlement crisis.
- The U.S. has systematically blocked the appointment of new Appellate Body members (judges).
- This has impeded the work of the WTO appeal mechanism.
- It is under great stress with only four working members out of seven normally serving office.
- If no appointment is made, the mechanism would be destroyed by December 2019.
- It would be left with only one remaining member to tackle a massive number of disputes.
- But the Appellate Body requires a core of three members to decide a dispute.

Other Concerns

- It is to be noted that the WTO dispute settlement mechanism is not a world trade court.
- So logically, the process remains political and diplomatic.
- WTO members are thus concerned over the politicisation of the Appellate Body appointment and reappointment process.
- There is also a concern with the quasi-attribution of permanent Appellate Body seats to the U.S. and the European Union (EU).
- Besides, there is concern over the possibility of China finding its way to have a permanent seat.
- **Cases** - Some Appellate Body members continue to hear cases which have been assigned to them during their tenure.
- The U.S. has persistently attacked this practice.
- However, the blame lies on the U.S. itself, for delay in filling up of vacancies and reappointment of members.
- This is indicative of the fact that the US is deliberately pushing the WTO legal mechanism for deterioration.

China's Prospect

- Despite limitations ensured by US and EU, China has largely benefited from the rules-based WTO system.
- It might well be the new WTO leader in the coming future.
- China's growing assertiveness, in fact, may be the reason for the U.S.'s hard measures.
- Its emerging power and the impact of its commercial domination on other economies are evident.
- But how far will China's legitimacy be, among other trading members, remains largely uncertain.

Way Forward

- The world has changed and multilateral institutions now have to embed these changes.
- The current WTO crisis could be a battle to retain control over a Western-centric organisation.
- It is high time for emerging economies and the developing world to have a greater say.
- They should establish their role in shaping the much needed multilateralism and its institutions.

TO Appellate Body

- The Appellate Body of the WTO was established in 1995 with its seat in Geneva, Switzerland.
- It is a standing body of seven persons.
- It hears appeals from reports issued by panels in disputes brought by WTO Members.
- The Appellate Body can uphold, modify or reverse the legal findings and conclusions of a panel.
- The Appellate Body Reports, once adopted by the Dispute Settlement Body (DSB), must be accepted by the parties to the dispute.

Inter-American Court of Human Rights (IACHR)

In news: It has recently given its advisory opinion on the issue of institution of asylum and its recognition as a Human Right.

Key Fact

- The IACHR is an independent, multinational court that handles the human rights cases of people affected by the laws of countries that are members of the Organisation of American States (OAS).
- It has ruled that all nations have an obligation to ensure safe passage for asylum seekers to their final territory of asylum.
- This assumes significance in the light of asylum of Julian Assange, Editor-in-chief of Wiki Leaks, in Ecuadorian embassy in U.K.
- He has been granted political asylum and citizenship by Ecuador in 2012.
- But he is unable to come out of the embassy in U.K because of the arrest warrant issued by U.K court in the charges of sexual assault and rape allegations.
- In this scenario, the advisory opinion by IACHR gives him the moral victory.
- The ruling would mean that, U.K. has an obligation to allow safe passage for Mr.Assange to Ecuador, where he has been granted political asylum as well as citizenship.

Organisation of American States (OAS)

- OAS is the world's oldest regional organization, which came into being in 1948.
- OAS brings together all 35 independent states of the Americas.
- It constitutes the main political, juridical, and social governmental forum in the Hemisphere.
- In addition, it has granted permanent observer status to 69 states, as well as to the European Union (EU).
- The Organization's four main pillars are democracy, human rights, security, and development.



Members French Guiana is the only observer state in South America
Observers

DEFENCE/SECURITY AFFAIRS

SOCIAL AFFAIRS

Resolving Mob Violence

Context

- Mere anti-lynching laws are less likely to be enough to curtail the menace effectively.
- Battling the mob phenomenon needs conscious political campaigning against discriminatory and xenophobic attitudes.

Mob Lynching

- Mob Lynching means killing of someone by a mob for an alleged offence without following any principles of jurisprudence or due process of law.
- A lynching is a majority way of telling a minority population that the law cannot protect it.
- Lynching served the broad social purpose of maintaining superiority in economic, social, cultural and political sphere.

Recent Developments

- **SC Verdict** - The Supreme Court (SC) has expressed shock over the spree of mob violence incidents that have occurred in various regions.
- The SC observed that it is the responsibility of the States to prevent untoward incidents and issued certain guidelines to be implemented.
- Further, the court noted that what may have started out as isolated acts by fundamentalist right-wing groups has now become a widespread malaise.
- **Guidelines** - The preventive guidelines of the SC require every State to designate a senior police officer as the Nodal Officer in each district.
- This officer has to collect intelligence regarding the spread of hateful provocative ideas and fake news and also stop their dissemination.
- Additionally, governments have been directed to carry out publicity campaigns against mob vigilantism and violence through media channels.
- The guidelines have also made an effort to streamline and fast-track investigations into future incidences and to support the family of the victims.

Causes

- With modernity, there is growth of individualism and an erosion of associational life. Associations encourage us to appreciate others culture and moderate our aggressive instincts.
- Mob has no face. This impunity leads mob to take extreme steps.
- Weakening of civil society organizations and other organic institutional links.
- A culture of political mobilization that uses violence as a tool of politics.
- Indifferent attitude towards other cultures and religions.
- Indifferent attitude of Police leads people to take law in their own hands (e.g. Tamil Nadu Lynching)
- In 21% of the cases, the police filed cases against the victims/survivors. (India spend report)
- Rise in penetration of Social media and its usage to spread rumors and hatred (Bangalore Exodus of North east people)
- Growing Prevalence of Fake news and Hate News (Dadri Lynching). There are instances of organized hate campaigns as well.
- According to 'India spend' 52% of attacks in last 8 years is based on rumors.
- The silence of political class. They are ineffective to create deterrence through strong law.
- Ineffective and delayed justice (Assam Lynching of rape accused).
- High Unemployment rates leave millions of youth unengaged.

Impact State

- It is against the values upheld in constitution of India. Every individual have certain fundamental rights any violence would be curtailment of this right.
- No regard to law and order in society. This may lead to growth of feeling of sub-nationalism.
- Radical and extremists organizations such as ISIS etc. could take leverage of atmosphere created by such incidents

India ranked 137 out of 163 countries on global Peace Index. The index uses three broad themes

- The level of safety and security in society
- The extent of domestic and international conflict
- The degree of militarisation

Society

- This impacts solidarity of society and idea of Unity in diversity. This creates an atmosphere of majority v/s minority
- It could aggravate caste, class and communal hatred. This may increase the extent of domestic conflict and subsequent militarization.
- Such acts show loss of tolerance in the society and people are being swayed by emotions, prejudices etc.

Economy

- This impacts both foreign and domestic investment thereby adversely affecting sovereign ratings. Many International agencies warned India against mob lynching incidents.
- It directly hampers internal migration which in turn affects economy.
- Large resources deployed to tackle such menaces induce extra burden on state-exchequer.
- These incidents would lead to selective distribution of investment which may impact regional balance.

Steps taken so far

- Government Launched Ek Bharat Shreshtha Bharat for sustained and structured cultural connect between citizens of different regions
- Civil society Launched 'NOT IN MY NAME' campaign: to protest against the cow vigilantism.
- Civil society also launched National Campaign against Mob Lynching (NCAML). It is also known as 'Masuka', short for Manav Suraksha Kanon (law to protect humans).
- A draft of the proposed legislation is currently up on the Internet, awaiting suggestions from the public.

About NCAML draft Protection from Lynching Act, 2017

- It defines, the terms 'lynching', 'mob' and 'victim' of mob lynching.
- It makes lynching a non-bailable offence
- It criminalises dereliction of duty by a policeman
- It criminalises incitement on social media, and
- It stipulates that adequate compensation be paid, within a definite time frame, to victims and survivors.
- It guarantees a speedy trial and witness protection.

Varieties of Democracy Report - 2018

Context:

- University of Gothenburg (Sweden) has recently published the "Varieties of Democracy Report" (V-Dem) for 2018.
- The report provides the most sweeping global examination of democracy, and India has seen a downgrade in its overall status.

About the Study

- The study covers 178 countries, crunches a large number of indicators, and adds a deep historical perspective.
- It is carried out rigorously, with a global team of 3,000 researchers with deep knowledge of local political contexts.
- It's also backed by the European Union (EU) and funded by a multitude of different institutions and think tanks, ensuring a robust access to data.
- The methodology involves classifying nations on a combination of variables and then checking for changes in overall democratic status.
- Notably, the survey does a comparison over 2007-2017 on multiple indicators.

various categories for classification

- **Liberal Democracy** - This category is the ideal benchmark, and every citizen in such societies is guaranteed equal rights and full freedom of expression.
- Further, equitable access to the law, institutionalised justice system, freedom of association, participatory elections etc., are other important metrics here.
- Only 39 of the 178 nations that were studied had met these standards in 2017.

- **Electoral Democracy** - In this category, all citizens have the vote but certain categories of people suffer exclusion due to their socio-economic status.
- Further, lower standards (as compared to liberal democracies) apply here, when it comes to human rights, freedom of expression and association, etc.
- In 2017, the V-Dem reckons 56 countries qualified for this category.
- **Electoral Autocracy** - In this category of nations, all citizens have the vote but repression, censorship and institutionalised intimidation are very visible.
- According to the study, in this domain too, there were 56 nations in 2017.
- **Closed Autocracy** - While electoral Autocracy do have severe problems, they are still better off than countries that are classified as closed autocracies.
- In a closed autocracy, the political executive is totally free of being answerable to its people, and their rule is carried out with fear and intimidation.
- Notably, for residents of “Closed Autocracies”, not being subjected to political persecution is a common big dream that many of them chase.
- Worldwide, there were 27 such “closed autocracy nations” in 2017.

India's situation

- India saw a slide in its ranking over the years as the quality of democracy has noticeably declined over the past decade (especially after 2014).
- The study notes that infringements on media freedom and the civil society activities have spiked since the “Hindu-nationalist government” took office.
- Nonetheless, India retains a system of free & fair multi-party elections and thus, qualifies as an electoral democracy.
- But it has seen major erosion in indicators such as Freedom of Expression, Rule of Law and Freedom of Association.
- The future remains uncertain, as India could get better from here, or slip further down to a situation akin to the emergency era (1975-77).

Challenges with India

- **Media** - Censorship of the media and harassment of journalists can occur gradually through “inducements, intimidations, and co-optation”.
- These tactics would further lead naturally to increasing levels of self-censorship and fewer explicit criticisms of the government.
- The predictable result is a narrower range of political perspectives in the public sphere, as well as a general decline in the freedom of expression.
- **Other factors** - Only the “Voter's Registry” has improved over the past 10 years and other parameters have either stagnated, or deteriorated.
- This includes harassment of media, curtailment of NGOs and repression of cultural and academic expression, etc.
- Even in terms of electoral transparency, the study says that intimidation and violence have increased and that party agents harass and bribe voters.
- The murder and jailing of environmental and human rights activists and attempts to shut down alternate means of free expression have also increased.
- Further, rapidly worsening “Gini coefficient” (increasing economic inequality) is another worrying indicator for sustaining democracy.

ENVIRONMENTAL AFFAIRS

Challenges before Cleaning Ganga

In News: National Green Tribunal has summoned union government's NMCG for its delayed actions in Ganga-cleaning projects.

National Mission for Clean Ganga (NMCG)

- It is a registered trust that runs the ‘NamamiGange’ mission, India's most ambitious endeavour to clean the Ganga River.
- The NMCG has a Rs. 20,000-crore, centrally-funded, non-lapsable corpus and consists of nearly 288 projects.
- The NMCG's thrust is on roping in the private sector to set up sewage treatment plants and also maintain them.
- In return, the government offers to contribute 40% of the capital costs upfront and disburse the rest with a profit margin over 15 years subject to performance indicators being met.
- The mission also has projects to clean the Ghats, rid the river of biological contaminants and improve rural sanitation and afforestation.

NGT's Decision on Clean Ganga mission

- Recently the National Green Tribunal was hearing petitions around Ganga-cleaning projects, it pulled up the government for its tardy job.
- The NGT showed its concerns that the stretches between Haridwar and Unnao were “unfit for drinking and bathing” and that authorities should display “health warnings”.

Implementation Challenges

- Most of the Ganga is polluted and it is due to five States on the river's main stem Uttarakhand, Uttar Pradesh, Jharkhand, Bihar and West Bengal.
- Approximately 12,000 million litres a day (MLD) of sewage is generated in the Ganga basin, for which there is currently a treatment capacity of just 4,000 MLD.
- Industrial pollution from tanneries in Kanpur, distilleries, paper and sugar mills in the Kosi, Ramganga and Kali river catchments is a major contributor.
- So far, the State governments only have concentrated on superficially cleaning the river by using trash skimmers and improving crematoria-infrastructure.
- A financial audit also suggested that while Rs. 20,601 crore had been sanctioned for 193 projects, only Rs. 4,254 crore had actually been spent on their implementation.

Government's Further Plan

- Union Water Resources Ministry has promised that 80% of the river will be cleaned by May 2019.
- The Union Water Resources Ministry has been focussed on ensuring a transparent tendering and bidding process.
- Only this year have treatment plants at Haridwar and Varanasi begun to be constructed.
- In May 2014, there were 31 treatment plants with a capacity of 485 MLD. As of May 2018, 94 projects, with a treatment capacity of 1,928 MLD, were under way.

GM Regulations in India

Context

- Despite the ban on local production and import of foods having genetically modified (GM) content, GM food has widely penetrated the Indian markets.
- But this has led to no real health or environmental consequences, which only supports the assertion that GM food is safe.

Shocking Regulatory Lapses

- “Centre for Science and Environment” (CSE) study indicated that as much as 32% of the processed foods marketed in India carry GM ingredients.
- As GM imports are banned, importers have to currently make a declaration that their goods are free of GM components at the customs.
- Yet, nearly 80% of the marketed foods that tested GM-positive in the CSE study were imported in contravention of the ban.
- More significantly, some of the GM products falsely claimed on their labels to be GM-free, which is a clearly spiteful violation to deceive consumers.
- All this reflects poorly on the country's GM regulatory systems.

GM Crop Scenario in India

- Currently, BT cotton is the only approved GM crop for commercial cultivation in India and it accounts for 90% of the cotton acreage now.
- While no GM food crop has been permitted thus far, GM foods have already deeply penetrated into the Indian markets.
- Notably, Cottonseeds (of BT-cotton), which bear GM DNA, are routinely fed to cattle whose milk is part of regular human diet.
- In recent years, even cottonseed oil has begun to be used as a cooking medium individually or admixed with other edible oils.
- This oil, if not properly refined, can retain remnants of GM DNA.

Differing Opinions on GM

- The fundamental issue really is the impact that the genetically tweaked foods can have on health and environment.
- If the vociferous anti-GM lobby argues that “GM Food” can pose wide-ranging hazards but most scientists disagree on this.
- In fact, there has been no detectable incidence of health or environmental hazard due to GM crops in the past 2 decades (since GM trials began).
- Also, several scientific studies conducted in the countries where GM crops are extensively farmed and consumed have not found any adverse effect.

Way Forward

- Poor regulations in India have resulted in careless sowing of BT-Cotton and the extensive penetration of GM foods into the markets.
- Despite these serious lapses, hardly any harmful fallout has been observed until now, which is hence a vindication of safety of GM crops.
- The government should, therefore, take note of these facts and lift the ill-advised embargo on the approval of new GM seeds.
- The cutting-edge technology of genetic manipulation needs to be put to gainful use for the benefit of farmers, consumers and biotech-based industries.

Kaleshwaram Irrigation Project

In News: The Kaleshwaram lift irrigation project in Telangana has attracted considerable national attention.

About Kaleshwaram project

- Kaleshwaram is a town on Godavari right bank about 300 km downstream of major dam, SriramSagar project (SRSP).
- At Kaleshwaram, the major tributary Pranahita, which merges with Godavari, brings large quantity of water, the place is also known as Sangam and Dakshin Ganga.
- The project proposes to lift about 180 TMC (about 5 billion cubic meters) of water.
- It includes construction of barrages, high speed pumps for transport of water upstream for providing for irrigation.
- Besides, it involves constructions of network storage dams, series of tunnels, canals water passing through several stages of pumping and reverse flow into Godavari River.

Challenges with the Project

Feasibility concerns –

- Various civil society organisations involved in water management and resettlement of evictees have questioned the proposed benefits accruing to farmers, they argue that
 - The 180 TMC water is not enough for 26 lakh acres for any meaningful irrigation.
 - The crop yields have been grossly inflated almost 10 times as compared to the current levels for projecting highly favourable benefits/outcomes.
 - The complete omission of social and ecological costs in the report.

Financial concerns

- The estimated project cost is Rs.80,450 crore and the annual maintenance costs including interest payments will be around a Rs.13,923 crore.
- In short, this project is unlikely to generate benefits of more than Rs.4,000 crore while the State would spend Rs.13,000 crore every year.
- The Telangana government is going to spend four times more on the operation and maintenance costs than all the benefits that would accrue to farmers.
- current realities of costs of products and prices of the products at the market place.

Ecological and livelihood concerns

- The project will displace at least 30,000 people in 19 villages.
- Further, the project is going to affect the total land of around 100,000 acres (40,015 hectares).
- Considering all other costs, this project is going to be a major burden for Telangana people and farmers for generations to come.

Way Forward

- Instead of submitting the DPR to an unbiased independent assessment, the speed with which the State government is implementing the project raises serious questions.
- That it will lead to irreversible and massive economic, social and ecological damage is beyond doubt.
- The Kaleshwaram project needs an independent review of costs, benefits, and technical specifications.
- This needs to be done at the earliest and if it confirms that this project would generate the benefits and turnover for the farmers and solve the farming crisis in Telangana, then, it should be implemented.

Concerns with IMD's Prediction

In News: India Meteorological Department (IMD) has predicted a normal and well-distributed rainfall in the second half of the monsoon season.

Key Statistics

- Over 80 per cent of the country's total geographical area has already received normal or above normal rainfall.

- Part of the rain-deficient region of Bihar, Jharkhand and the Northeast, too, has received some welcome showers in the past few days.
- Though the pace of kharif sowing has so far been slower, the estimated 7.5 per cent lag in crop planting can be made up in the next few weeks since the sowing season is still not over.
- Besides, the total water stock in the country's 90-odd major reservoirs has already swelled to about 11 per cent above normal for this time of the year.

IMD Forecast

- Currently, the IMD uses predictors such as temperature difference between various oceans and land mass quantity of snow accumulated during winter and equatorial pressure gradients.
- The numbers for the particular year is determined based on the LPA.
- Long Period Average or LPA are averages of rainfall received over a 50-year period between 1951 and 200.
- IMD classified the predicted number in various category such as
 - Normal: If the predicted rainfall is between 96 per cent and 104 per cent of the LPA
 - Above Normal: between 104 per cent and 110 per cent of LPA
 - Excess: anything above 110 per cent of LPA.
 - Below normal: rainfall between 90 per cent and 96 per cent of LPA
 - Deficient anything less than that as.

Significance of IMD's Prediction

- In the last 17 years since 2001, the weather office's preliminary predictions have been on the mark on only a couple of occasions
- However the margin of error has gradually been narrowing, especially since 2010.
- This is despite perceptible advances in the IMD's short- and medium-range weather gauging capabilities, expansion of data-gathering infrastructure and availability of better-computing facilities.
- Recently IMD has predicted that second half of the monsoon August-September will have normal and well-distributed rainfall.
- The markets have, predictably, reacted positively to the optimistic monsoon outlook.

Issues with IMD's prediction

- The IMD's prediction rainfall seems to have largely quelled the disquiet caused by other weather watchers by projecting sub-par monsoon rainfall this year.
- The past accuracy record of the IMD's long-range monsoon forecasts, issued normally in April every year, does not inspire much confidence.
- The major reason for the wide disparity in the monsoon outlook of the IMD's is their perception of the likely adverse impact on the rainfall of some key monsoon-influencing parameters that are threatening to turn unhelpful.
- The local private weather forecaster, Skymet anticipates below-average rains this year on the assumption that oceanic parameters are at present unfavourable for the monsoon's progress.
- The IMD, on the other hand, has stuck to its original stand that the rainfall would be normal or close to that throughout the season.
- The sharpest contrast in the forecasts by Skymet and the IMD is in the rainfall projections for the current month of August.

Way Forward

- However, regardless of whether the IMD or Skymet proves correct, the chances of any major ill-effect of the monsoon on agriculture or the economy seem quite dim at this stage.
- It should help sustain water supply for crop irrigation and hydel power generation in the post-monsoon dry season as well.
- Though all these are reassuring factors, the proverbial uncertainties of weather cannot be brushed aside.
- Thus the ultimate outcome would depend on how the weather pans out between now and the harvesting of crops from October onwards.

Arsenic contamination in paddy

In News: According to recent study, arsenic contamination in paddy is rising from ground water in West Bengal.

- It reveals that rise in arsenic contamination of paddy plants due to concentration of arsenic accumulation depends on variety of paddy and its stage in crop cycle.
- Its concentration varies with rice variety and stage in crop cycle.

Key highlights

- The study was carried out on two commonly consumed rice varieties — Minikit and Jaya — and it were found that latter to be more resistant to arsenic.

- It shows processes and dependencies of arsenic trans-location in rice from contaminated irrigation water.
- It has found that arsenic contamination in paddy was higher than in previous studies.
- It shows that arsenic uptake in paddy plant reduces from root to grain and that its concentration is related to variety of rice cultivated.
- It was observed that highest concentration of arsenic was observed in initial or vegetative state in first 28 days.
- It reduced during reproductive stage (29-56 days) and again increased in ripening stage.
- The uptake of arsenic is faster in young roots in vegetative state than in older tissues with higher concentrations of iron in root soil in reproductive phase.
- It also raised concerns over disposal of contaminated rice straw which is used as animal fodder or burnt or sometimes left in field itself to serve as fertilizer.

Arsenic Poisoning

- Arsenic is a natural component in Earth's crust. It is widely distributed throughout environment in air, water and land.
- It is highly toxic in its inorganic form. Intake of soluble inorganic arsenic over long period can lead to chronic arsenic poisoning (arsenicosis), diabetes, cardiovascular diseases and cancer.
- In India, Arsenic pollution big problem in West Bengal and neighboring states.
- In West Bengal, there are 83 blocks in eight districts where groundwater is arsenic contaminated.
- Malda, Murshidabad and Nadia districts have higher levels of arsenic concentration

BIO/ HEALTH ISSUES

Addressing the concerns of Envenoming

In News: World Health Assembly has adopted a resolution to accelerate and coordinate global efforts to control snakebite 'Envenoming'.

concerns of Envenoming

- Envenoming is a life threatening disease that follows the bite of a venomous snake.
- Between 1.8 million and 2.7 million people are bitten worldwide every year, between 81,000 and 1,38,000 of them die, and four or five times that number are disabled, according to the WHO.
- In India some 50,000 die every year, however the WHO fears this estimate may be just 10% of the actual burden.
- In 2017-18, 1.96 lakh cases of snakebites were recorded, with West Bengal, Maharashtra and Tamil Nadu reporting the biggest numbers.

issues in addressing envenoming problem

- **Lack of Awareness** - In India about 300-odd species of snakes are found, out of which 52 are venomous, but all their poisons are different.
- India produces polyvalent ASV, which combines the venoms of India's four most common poisonous snake's cobra, common krait, Russell's viper, and saw-scaled viper.
- But more venom is wasted in the manufacture of such ASV, and more vials (quantity) are required to treat the patient.
- **Manufacturing Issues** - ASV manufacture requires a series of forest department permissions.
- Horses are needed for the test, for which a large space is necessary, thus Private companies do not find all this financially feasible.
- **Lack of guidelines** - Each manufacturer has its own protocol, which leads to the differing quality of ASV.
- Researchers find only locally produced ASVs are the most effective, since a snake's venom changes with terrain, diet and environment.
- There are various observations that the potency of ASV is reducing in the last few years, but India has lack of research to upgrade its ASVs.
- **Untrained doctors** - A monovalent ASV, made from the venom of one species, can treat the bite of only that species, it is more efficient than Polyvalent drugs.
- But the purpose of monovalent drugs is lost in India since doctors fail to identify the right species.
- In most cases, doctors do not identify the bite mark as it is small, and the victim is attacked while asleep

Way Forward

- Recently Maharashtra approved the setting up of a National Venom Research Centre.
- The state also asked the Union government to aid the public sector ASV manufacturer Haffkine Institute in its work on snake species and poisons.

- Apart from this in 2009 and 2016, snake bite protocols were drafted by the Union government, such training must cover all doctors.
- India currently manufactures only polyvalent ASV, it should research in the area of monovalent drugs and produce such drugs.
- It needs to train doctors to identify snakes by their bites before switching to the production of monovalent ASVs.
- Proper guidelines needs to ensure the quality of ASVs and MBBS courses should have a separate chapter on snakebites.

Concerns with Oxytocin Ban

Context

- The Union Health Ministry has recently decided to restrict the production and sale of oxytocin.
- The rationale of the decision is contested and the ban is expected to have severe public health consequences.

key reason

- The ban is primarily motivated by the misuse of the hormone in the dairy industry.
- Oxytocin stimulates lactation in cattle.
- Dairy farmers thus inject the drug indiscriminately to increase milk production.
- This has increased the unlicensed facilities that are manufacturing the drug for veterinary use.
- There is also a concern that oxytocin led to infertility in dairy animals.
- It has also been linked to mastitis, a painful inflammation of the udder (mammary gland).
- Another concern is the exposure of milk consumers to oxytocin drug through dairy products.

oxytocin crucial

- Nearly 45,000 Indian women die due to causes related to childbirth each year.
- Oxytocin, a synthetic version of a human hormone, is a life-saver for these women.
- It is used to induce labour in pregnant women and to stall postpartum bleeding.
- The World Health Organization recommends it as the drug of choice in postpartum haemorrhage.
- The ban thus seems to be ignoring this critical role of oxytocin in maternal health.

contentions

- **Validity** - There are some studies that add validity to the above concerns of ill-effects of oxytocin on cattle.
- However, the science behind these claims is unclear and is not properly established.
- The National Dairy Research Institute has said that there was no evidence that oxytocin led to infertility.
- Another research claims that oxytocin content in buffalo milk did not alter with injections.
- However, even if the ill-effects of oxytocin are real, a ban is not the right solution.
- **Shortage** - Manufacture of the drug only by a single public sector unit could lead to drug shortages and price hikes.
- The right approach would have been to strengthen regulation and crack down on illegal production.
- Monopolising production will only remove the low-price options from the market.

Natural Infrastructure for Water Problems

Context

- The small-scale bottom-up water conservation movements have only helped locally.
- There is need for non-invasive large-scale schemes to address India's huge water problems.

Looming threat

- Building artificial infrastructure eventually kills natural infrastructure.
- Forests, rivers, mountains, aquifers and soil are being lost at an alarming rate.
- Notably natural infrastructure is a result of ages of evolution and cannot be engineered in short span.
- India now is in the midst of a suicidal water crisis as urban and rural landscapes go thirsty.

Measures

- Over the years, various stakeholders have been working on bottom-up schemes.
- There have been efforts to revive and rejuvenate lakes, wetlands, streams and other small water bodies.
- These movements have brought about a significant change at the local level.

- But the scale of India's water problems is much larger than these local efforts.

Concerns

- **Demand** - Cities are now the centres of rising demand for water, food, energy and other resources.
- High densities of cities do not allow for water harvesting to fill the gap.
- Schemes like dams to service these large cities and the huge needs of agriculture have caused extreme ecological devastation.
- **Market** - Natural resources are living evolutionary resources that are constantly renewed by natural cycles.
- They provide perennial value as long as they are used with natural wisdom.
- But products and services derived from natural infrastructure have often led to terminal loss of the source itself.
- The global free market and the resultant scale of human intervention exceed the scale of the planet.
- So loss of forests, mountains, floodplains and rivers are in most cases long-term loss for short-term gain.

Possible sustainable measures

- **River floodplains** - Floodplains are formed over millions of years by the flooding of rivers.
- These are formed by deposition of sand on riverbanks and are exceptional aquifers.
- So any withdrawal of water is compensated by gravity flow from a large surrounding area.
- Some floodplains, such as those of Himalayan rivers, contain up to 20 times more water than the virgin flow in rivers in a year.
- This could potentially be conserved and used as a source of providing water to cities, and can be a self-sustaining aquifer.
- E.g. the Delhi Palla floodplain project on the Yamuna
- Piezometers and a control system have been installed.
- These help monitoring water levels and other parameters, to ensure sustainable withdrawal.
- Besides, it provides huge revenue to the Delhi Jal Board.
- Requirement - Preserving the floodplain in a pristine condition is essential for this scheme to work.
- Land on the floodplains can be leased from farmers in return for a fixed income from the water sold to cities.
- The farmers can be encouraged to grow orchards/food forests to secure the ecological balance of the river ecosystem.
- **Natural mineral water** - Forested hills sit on a treasure of underground aquifers.
- Rains falling on the forest seeps through the various layers of humus and cracked rock pathways.
- In the course, they pick-up nutrients and minerals and flows into underground mineral water aquifers.
- The natural mineral water could be a better alternative for the mineral water currently brought from faraway mountain springs.
- The huge pressure that this puts on the mountains could be avoided.
- Water in underground aquifers is comparable to several international natural spring mineral waters.
- With a proper scheme, a forest like AsolaBhatti in Delhi could be sustained as a mineral water sanctuary.
- Likewise Aravalli forested hills can provide mineral water to all major towns of Rajasthan.
- Quality natural mineral water can be provided from a local forest tract for 20 times less than the market price.

Way forward

- These non-invasive, large-scale 'conserve and use' projects should become part of the living scheme.
- These schemes can
 - provide perennial supply of water to large populations in cities and towns
 - engage the natural landscape
 - sustain ecological balance
 - have major economic and health benefits
- Unlike large-scale dams, these projects work with nature rather than against it.

Ebola Resurfaces

Context

- Ebola crisis in 2014 had a severe effect on multiple African governments.
- The disease has returned in parts of “Democratic Republic of Congo” (DRC) with new outbreaks getting reported recently.

current outbreak in Congo

- Recently, just days after World Health Organisation (WHO) reported that the Ebola crisis had ended in DRC, newer incidences were reported again.
- The current outbreak in Northern Province of Kivu appears to be unrelated to the previous occurrence about 2,500 km away at Equateur Province.
- While Ebola is a constant threat in DRC, the detection of incidences is said to be an indicator of a properly functional health surveillance system.
- Importantly, the response of the DRC government to the current episode was praised as prompt and skilful (having learnt from previous events).
- On its part, the WHO too released \$1 million from its Contingency Fund for Emergencies immediately after the outbreak was reported.
- Its multidisciplinary team began an active search for cases and people who had come in contact with those who were infected.
- Then, treatment facilities and mobile laboratories were set up and the community educated on safe practices.

Vaccine Development

- “VSV-EBOV” vaccine, which was developed recently by Canadian researchers, is now under testing, and holds considerable promise to curtail Ebola.
- Notably, pending comprehensive trial results, the vaccine has already been approved for compassionate use in case of emergencies.
- Currently, the first batch of more than 4,000 doses of vaccine was recently dispatched to DRC through a WHO monitored project chain.
- Health workers and vulnerable populations are being selectively administered the vaccine to curtail the spread of the disease.

Polio

- Recently, 28 children in the Democratic Republic of the Congo (DRC) were paralyzed by the circulating vaccine-derived polio virus Type 2 (cVDPV).
- WHO termed the health risk at national level to be very high and the risk of international spread to be high.
- Immunisation using Oral Polio Vaccination (OPV) reduced the outbreak caused by wild polio virus by 99.9% since 1988.
- OPV contains weakened but live polio virus, which can cause paralytic polio.
- The vaccine-virus is excreted by immunized children, it can move from one person to another.
- On the one hand, a vaccinated person protects unvaccinated people she comes in contact with by spreading immunity through faeces.
- But on the other, such circulation allows the virus to stick around and mutate to a more virulent form, raising the spectre of vaccine-derived poliovirus (VDPV).
- VDPV, like imported wild polio, can cause outbreaks in under-immunised population.
- It is for this reason that the eradication of polio worldwide requires OPV to be stopped and replaced with the Inactivated Polio Vaccine (IPV).
- IPV is an injectable form of polio vaccine administered alone or in combination with other vaccines including the OPV (oral polio vaccine).
- IPV does not cause VDPV but protects children equally well against polio.

West Nile Virus

- Kerala Health department has suspected a viral infection similar to West Nile in a woman from Kozhikode district.
- West Nile Virus (WNV), typically spread by mosquitoes, can cause neurological disease and death in people.
- It is a member of the flavivirus genus and belongs to the same family of Japanese encephalitis - Flaviviridae.
- Its transmission cycle, by nature, revolves between birds and mosquitoes. Humans, horses and other mammals can be infected.
- Mosquitoes become infected when they feed on infected birds, which circulate the virus in their blood for a few days.
- Human infection is most often the result of bites from infected mosquitoes.

- To date, no human-to-human transmission of WNV through casual contact has been documented.
- It may be transmitted through contact with other infected animals, their blood or other tissues.
- No vaccine is available for humans.
- It is commonly found in Africa, Europe, the Middle East, North America and West Asia.
- It was first isolated in a woman in the West Nile district of Uganda in 1937. In India, it was first noticed in 1956 and it had its presence in Kerala in 1973.

Scrub Typhus

- Scrub Typhus is an acute illness in humans caused by a bacterium. It is transmitted by the bite of infected mite larva present in the soil.
- Gorakhpur in U.P is treated as a hub of Acute Encephalitis Syndrome (AES).
- Number of patients affected by AES admitted in the Hospital has increased during Monsoon period.
- To find out the reason behind this, researchers has identified the role of scrub typhus.
- Almost, 65% of the AES patients got infected by Scrub Typhus.
- This finding is important, given that scrub typhus can be treated easily if detected early.
- The increase in infestation of rodents by mites during August-October explains why scrub typhus incidence peaks during monsoon.

Star Tortoise

In News: Directorate of Revenue Intelligence (DRI) has recently seized 1,125 star tortoises from that were being smuggled to Bangladesh.

- A star tortoise is one of the most expensive reptiles in the international pet market in countries in Asia, like Malaysia, Singapore, Bangladesh and Sri Lanka, as well as in Europe and America.
- Indian star tortoise is native to India (Andhra Pradesh, Karnataka, Orissa, Tamil Nadu), Pakistan and Sri Lanka.
- It naturally inhabits scrub forests, grasslands, and some coastal scrublands of arid and semi-arid regions.
- It has been included on Appendix II of the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES).
- It is placed under Schedule IV of the Wildlife (Protection) Act 1972.
- It is listed as "Vulnerable" in IUCN red list of threatened species.
- It is also prohibited for export under the Foreign Trade Policy.

Directorate of Revenue Intelligence

- The Directorate of Revenue Intelligence is the apex anti-smuggling agency of India.
- It is working under the Central Board of Indirect Taxes & Customs, Ministry of Finance, and Government of India.
- It is tasked with detecting and curbing,
 - Combating commercial frauds related to international trade and evasion of Customs duty.
 - Illicit international trade in wildlife and environmentally sensitive items,
 - Smuggling of contraband, including drug trafficking,
- DRI was previously 'C.R.I.B.' (Central Revenue Intelligence Bureau) which was made in 1953.

GI tag for Kadaknath chicken

In News:

- Kadaknath chicken meat from Jhabua district of Madhya Pradesh has received Geographical Indication (GI) tag from Chennai based Geographical Indication Registry and Intellectual Property India.
- The application for GI was made by GraminVikas Trust of KrishakBharati Cooperative (KRIBHCO) on behalf of tribal of Jhabua district who breed the variety.
- Significance
- GI tag will ensure that no one else can use name Kadaknath Chicken while selling any other black chicken.
- It will also enhance its commercial value that will translate into higher prices for producers mainly tribal districts of Jhabua.

Kadaknath Chicken

- Kadaknath or Kali Masi (flowl with black flash) is unique breed of chicken that is complete black colour.

- It is completely black with black plumage having greenish iridescence, black legs, beak, tongue, comb and wattles.
- Apart from its meat, its bones and most organs are also black. Its black color stems from deposition of melanin pigment.
- This breed of chicken is popular for its adaptability and flavorful good-tasting black meat, which is believed to have medicinal properties.
- It is native tribal districts of Jhabua, Alirajpur and parts of Dhar in Madhya Pradesh. It is produced mainly in Madhya Pradesh and Chhattisgarh states of India.
- Kadaknath chicken contains 25-27% of protein in comparison with other breeds of chickens that contain 18% protein. It is also known for its high iron content.
- It has fat and cholesterol content lower compared with other chicken breeds.
- Due to this special characteristics, Kadaknath chicken's chicks and eggs are sold at much higher rate than other varieties of chicken.
- This chicken breed is very popular among local tribal people mainly due to its adaptability to the local environment, disease resistance, meat quality, texture and flavor.

Geographical Indicators

- A GI product is primarily an agricultural, natural or a manufactured product (handicraft and industrial goods) originating from a definite geographical territory.
- It is a community right rather than individual or company.
- It is protected under Geographical indications of goods (registration and protection) act, 1999.
- GI for a product is valid for 10 years and it can be renewed for any time.
- It is managed by Cell for IPR promotion and Management (CIPAM) under the Ministry of Commerce and Industry.
- At the International level, GI is governed by WTO's Agreement on Trade Related Aspects of Intellectual Property Rights (TRIPS).
- Tamil Nadu is the first among the states in India with regard to the number of GI tags for its products, while Uttar Pradesh comes second.
- The first product in India to be accorded with GI tag was Darjeeling tea in the year 2004-05.
- Some of the recently accorded GIs are,
 - Hand-crafted stone sculptures of Mamallapuram;
 - Rasgulla of West Bengal;
 - Pochampallylkat of Telangana;
 - Gobindobhog Rice of West Bengal;
 - Etikoppaka Toys of Andhra Pradesh; and
 - Chakshesang Shawl of Nagaland.

Note: Ministry of Commerce and Industry has recently launched a logo and tagline for Geographical Indications (GI).

It is to increase awareness about intellectual property rights (IPRs) in the country.

TECHNOLOGICAL AFFAIRS

World's first thermal battery plant in Andhra Pradesh

In News:

- The world's first-ever thermal battery plant owned by Bharat Energy Storage Technology Private Limited (BEST) was inaugurated in Amravati, Andhra Pradesh.
- This plant aims to create new energy storage form that is expected to have commercial applications, while also maintain low carbon footprint and less dependent on external factors like weather.

Key Facts

- BEST is planning to create a battery capacity of 1000MW. This is expected to be upgraded to a 10GW capacity by 2025.
- The thermal battery is based on alternative sources of energy production, and its presence is expected to reduce dependence on fossil fuels.
- It provide energy solutions for electrical grids, transport and telecom services. This plant is based on technology patented in India by Dr. Patrick Glynn in 2016.

Thermal Battery Technology

- Thermal battery use thermal energy to operate i.e. energy created by temperature differences.
- The energy transfer in this battery helps to store heat when heat travels from one part of battery setup to other.
- For this transmission, thermal battery consists of two parts viz. cool zone (sink) and hot source (source.)

- Both these sides consist of compounds known as phase-changing materials (PCMs), which can change their state of matter on basis of physical and chemical reaction.
- When sink of thermal battery receives heat, it transforms physically or chemically, thereby storing energy, while source cools down.
- During operation, sink is cooled down, so it releases stored energy, while source heats up.
- Depending on nature of battery, system can derive heat from any source, which makes thermal battery very versatile.
- For power transmission, thermal batteries can function as long as there is heat source.

Different from Conventional battery technology

- Conventional battery technology work on basis of electrical energy and is based on system of charging and discharging cycles that are driven by electricity.
- For example Lithium-ion (Lion) battery, staple of many electronic devices, consists of electric charges being transferred from electrodes.
- Energy is derived from this battery, when lithium atoms turn into lithium ions (Li⁺), and get stored when this reaction reverses.

Benefits

- Thermal battery is hailed as perfect alternative to non-renewable energy sources. It is considered to be even better than solar energy.
- It will be energy source for power telecommunications services, electrical grids, electric vehicles (electric buses, on a single charge expected to run for up to 800kms).
- It has lesser heat sensitivity, and low carbon footprint these are better than Li-ion batteries and outperform solar panels, which have expensive maintenance, and high weather-dependent operation.
- Solar batteries cannot be charged or utilized to their optimum potential after sunset or even when the skies are densely clouded.
- Though thermal batteries are priced at par with widely used Lithium-ion batteries, but they have low carbon footprint and also last longer.

ISRO postpones launch of Chandrayaan-2 mission

In News:

- Indian Space Research Organization (ISRO) has postponed Chandrayaan-2, India's second mission to moon to January 2019.

Key Highlight

- This will be second time mission has been postponed. The ambitious mission was earlier planned to be launched in April 2018 and was later fixed for October 2019.
- With this delay, India may lose fourth position in the world for soft-landing on the moon to Israel as it too planning to launch moon mission in December 2018.

Chandrayaan 2 Mission

- Chandrayaan-2 is India's most challenging and India's second mission to Moon.
- It is advanced version of previous Chandrayaan-1 mission (launched in 2008) which only involved orbiting around moon.
- Chandrayaan-2 is much complicated mission as it involves an orbiter, lander and rover.
- The mission component has been completely developed indigenously by ISRO and consists of Orbiter, Lander and Rover configuration.
- In this mission, ISRO will for first time attempt to land rover on moon's south-pole.
- The mission involves soft-landing on lunar surface and rover that will walk and analysis content on moon's surface.
- Chandrayaan 2 will be launched on board of Geosynchronous Satellite Launch Vehicle Mk III (GSLV-F10).
- It will be ISRO's first inter-planetary mission to land rover on any celestial body.
- The spacecraft (orbiter) weighs around 3,290 kg and it will orbit around moon and perform objectives of remote sensing moon.
- Once GSLV-F10 put spacecraft in 170 km x 20,000 km elliptical orbit, orbiter will be maneuvered towards 100-km lunar orbit by firing thrusters and then lander housing the rover will separate from orbiter.
- The six wheeled rover will move on unexplored lunar surface and collect soil or rock samples for on-site chemical analysis to gather scientific information on lunar topography, mineralogy, elemental abundance, lunar exosphere and signatures of hydroxyl and water-ice.
- The data will be relayed to Earth through orbiter. The rover will move around landing site in semi-autonomous mode as decided by the ground commands.
- **Note:** The soft-landing on the lunar surface of the moon will be most complex part of Chandrayaan 2 mission.
- Only US, Russia and China have been able to soft-land spacecraft on lunar surface.

India's first Blockchain District

In News:

- Telangana State Information Technology, Electronics and Communication department (ITE&C) signed Memorandum of Understanding (MoU) with Tech Mahindra to launch India's first Blockchain district.
- The MoU was signed at International Block-chain Congress 2018 held in Hyderabad.

Blockchain district

- It will be center of excellence, incubator and process development for emerging technology with innovative infrastructure and facilities to foster growth of Indian block-chain start-ups and companies.
- Tech Mahindra as its founding member will provide platform and technology assistance to all incubators in it.
- It will also empower accelerators to develop and solve market problems across its global customer ecosystem.
- Telangana ITE&C Department will provide regulatory and policy support to enable and promote Block-chain growth both in India and globally.

Significance

- Block-chain district will be global talent hub which can help to unlock value of block-chain technology in democratizing data and solving big scale world problems.
- It is also huge step in reskilling and right skilling workforce of the future.
- It will provide an opportunity for block-chain ecosystem in India to collaborate and work towards building a block-chain district in Telangana and transforming India as the blockchain capital of the world.

Blockchain Technology

- Blockchain is decentralized incorruptible digital ledger for storing data across peer-to-peer network.
- It decentralizes information without it being copied. Information is held on block-chain through shared database which can be accessed on real-time basis.
- This database is not stored on physical servers but on cloud, which makes it easy to store unlimited data.

Advantages

- Block-chain technology is not controlled by any single entity and has no single point of failure.
- It is transparent and incorruptible. It is kind of self-auditing ecosystem of digital value and block-chain network automatically checks every transaction that happens in it.

Applications

- The most popular application of technology so far has been crypto currency.
- But it is not limited to, financial transactions and can be also used in smart contracts, supply chain management logistics, sharing economy, crowd funding, governance, file storage and date management and Internet of Things (IoT).

Green Propellants

- ISRO is developing green propellants for use in future rocket & satellite propulsion systems.
- It has made a beginning by developing an eco-friendly solid propellant to eliminate the emission of chlorinated exhaust products from rocket.
- The propellants are based on GlycidylAzide Polymer (GAP) as fuel and Ammonium Di-Nitramide (ADN) as oxidizer.
- ISRO is also carrying out various technology demonstration projects involving green propellant combinations such as Hydrogen Peroxide (H₂O₂), Kerosene, Liquid Oxygen (LOX), Liquid Methane etc.
- It has successfully developed ISROSENE, which is a rocket grade version of kerosene as an alternative to conventional hydrazine rocket fuel.
- It has already used Liquid oxygen and liquid hydrogen combination in cryogenic upper stage of GSLV MK-III.

MISCELLANEOUS

INSHORT

State Energy Efficiency Preparedness Index (SEEPI)

- The 1st edition of the SEEPI was recently released jointly by the Bureau of Energy Efficiency (BEE) and NITI Aayog.
- The index assessed state policies and programmes aimed at improving energy efficiency in five key sectors.
- The sectors are buildings, industries, municipalities, transportation, agriculture and electricity distribution.
- The criteria taken into account includes,
 - Sector-wise energy consumption,
 - Energy saving potential
 - States' influence in implementing energy efficiency
- It has classified states in to four categories - front runner, achiever, contender and aspirant, based upon their efforts towards energy efficiency.
- Kerala topped the list followed by Rajasthan and Andhra Pradesh. These states are categorized as front runners.
- Gujarat, Karnataka, Tamil Nadu and Haryana have been categorised in the second best category of 'achiever' states.

Agricultural Scientists' Recruitment Board (ASRB)

- Union Cabinet has recently approved the proposal of restructuring of ASRB.
- ASRB is an independent recruitment agency to various scientific positions in Indian Council for Agricultural Research (ICAR), the premier agency for agricultural research and education in the country.
- After the recent restructuring, the budget head ASRB would be delinked from ICAR and be attached with Department of Agricultural Research & Education (DARE).
- It will now be a 4-member body and have its own cadre of administrative staff.
- It will be done to ensure the autonomy and efficient functioning of the institutions.

Move Hack

- Move Hack is a global level hackathon launched by NITI Aayog, to crowd source solutions aimed at the future of mobility in India.
- It aims to bring about innovative, dynamic and scalable solutions to problems pertaining to mobility.
- It is open to individuals from all nationalities, making it a truly global hackathon.
- Move Summit 2018, which is going to be organised by NITI Aayog in New Delhi, will announce the winners of this hackathon.
- It is expected that it will provide solutions to mobility-related challenges and pave the way for developing interconnected global community.

Integrate to Innovate Programme

- The programme aims to provide opportunity for Indian energy startups to pilot their products with corporates.
- It will provide startups, a unique lab-to-market opportunity housed at the corporate premises.
- The corporates would offer startups access to technology, technical and commercial mentorship and access to potential customers through the corporate network of partners.
- The duration of the programme would be three months.
- It is developed by Invest India and energy sector companies.
- The selected startups will receive a cash prize grant of upto Rs. 5 Lakh per startup.
- Innovators from across various stages of the energy life-cycle - generation, transmission and distribution, storage and consumption and in multiple sectors such as households, farm, industry, infrastructure, building, utility and transport are included.

SAATHI Initiative

- Sustainable and Accelerated Adoption of efficient Textile technologies to Help Small Industries (SAATHI) is a joint initiative by Ministries of Power and Textiles.
- It aims to accelerate the adoption of energy efficient textile technologies in the powerloom sector and promote cost savings.
- Energy Efficiency Services Limited (EESL), a public sector unit under Ministry of power will help in implementing the initiative.
- EESL will replace old inefficient electric motors with energy efficient motors.

- It would procure energy efficient powerlooms and other kits in bulk and provide them to the small and medium powerloom units at no upfront cost.

Advanced Area Defence (AAD)

- DRDO has recently conducted the successful test of Ballistic missile interceptor - AAD from Abdul Kalam Island, Odisha.
- Ballistic Missile Defence (BMD) is a two tiered defence shield which aims to destroy enemy ballistic missiles.
- The BMD consists of two interceptor missiles, the Prithvi Defence Vehicle (PDV) and the Advanced Area Defence (AAD) missile.
- PDV/Pradyumna Ballistic Missile Interceptor is capable of destroying missiles at exo-atmospheric (high) altitudes of 50–80 km.
- PDV is a two stage supersonic missile fuelled by solid motor in 1st stage and liquid fuelled in 2nd stage.
- AAD/Ashvin Advanced Defense interceptor is capable of destroying missiles at endo-atmosphere (low) altitudes of 15-30 kilometers.
- AAD is a single-stage supersonic solid fuelled interceptor missile.
- BMD shield is expected to be achieved by 2022.

Rashtriya Uchchatar Shiksha Abhiyan (RUSA)

- It is a Centrally Sponsored Scheme launched by Ministry of Human Resource and Development, in 2013.
- Its aim was to increase enrolment in higher education by 30% by 2020.
- It also seeks to increase the spending on higher education by the State Governments by providing strategic funding to eligible State higher educational institutions.
- The funding would flow from the central ministry through the State/UT to the State Higher Education Councils before reaching the identified institutions.
- During its 1st phase, central assistance to States has been provided for creation of one Model Degree College each in 60 Educationally Backward Districts.
- Educationally Backward Districts are those districts where Gross Enrolment Ratio (GER) in higher education was less than the national average of 12.4% based on 2001 census data.
- During its 2nd phase, RUSA focuses on opening new Model Degree Colleges in 'Aspirational Districts', in unserved & underserved districts in North Eastern and Himalayan States.
- Aspirational Districts are identified by NITI Aayog on the basis of composite index.
- The parameters under the index includes,
 - Deprivation enumerated under Socio-Economic Caste Census,
 - Health & Nutrition, Education performance indicators
 - Basic Infrastructure.

Atal Bhujal Yojana

- It is a Central Sector Scheme of the Ministry of Water Resources, River Development and Ganga Rejuvenation.
- It aims to improve ground water management in priority areas in the country through community participation.
- The emphasis will be on recharge of ground water sources and efficient use of water by involving people at the local level.
- The priority areas identified under the scheme represents 25% of the total number of over-exploited, critical ground water blocks.
- Those states are Gujarat, Haryana, Karnataka, Madhya Pradesh, Maharashtra, Rajasthan and Uttar Pradesh.
- It is to be implemented over a period of five years from 2018-19 to 2022-23, with World Bank assistance.
- The funding pattern is 50:50 between Government of India and the World Bank.

Sports University

- The National Sports University Bill, 2018 was recently passed by Lok Sabha.
- The bill seeks to establish a National Sports University headquartered in Manipur.
- The university, first of its kind, aims to promote sports education in the areas of sports sciences, sports technology, sports management and sports coaching.
- It will undertake research on physical education, strengthen sports training programmes, and collaborate internationally in the field of physical education.
- As per the bill, key powers of the university includes,

- Prescribing courses of study and conducting training programmes,
- Granting degrees, diplomas, and certificates,
- Providing facilities through a distance education system, and
- Conferring autonomous status on a college or an institution.
- The central government will review and inspect the functioning of the University.
- It will maintain a fund which is contributed by the central, state governments, UGC, income from fees and others sources.
- The government has signed an agreement with two Australian Universities to make the sports university a world-class institution.

Purchasing Managers' Index - Service

- PMI is an indicator of the economic health and investor sentiments about the manufacturing sector (Manufacturing PMI) and services sector (Services PMI)
- Its purpose is to provide information about current business conditions to company decision makers, analysts and purchasing managers.
- For India, the PMI Data is published by Japanese firm Nikkei but compiled and constructed by Markit Economics.
- In a PMI survey, a standard questionnaire is administered to business entities.
- The respondents can either give a "Positive, Neutral or Negative" response and each response is marked as "1, 0.5 or 0" on the score card respectively.
- In adding up the response, a reading above 50 indicates economic expansion, while a reading below 50 points shows contraction of economic activities.
- According to the recent PMI survey, service sector business activity witnessed the strongest growth since October 2016, amid improved demand conditions.

North East Venture Fund

- The fund was set up by the North Eastern Development Finance Corporation Ltd. (NEDFi) under the Ministry of Development of North Eastern Region (DoNER).
- The capital commitment to the fund is Rs.100.00 crore.
- The initial contribution of Rs. 75 crore is from DoNER and NEDFi. The balance (Rs.25 crore) has been committed by Small Industries Development Bank of India (SIDBI).
- It is the first dedicated venture capital fund for the North Eastern Region.
- Its primary objective is to promote investments in enterprises on various sectors like food processing, healthcare, tourism etc.
- It will provide resources for entrepreneurs from the region to expand throughout the country.
- Investments from this fund will be monitored by NEDFi.

State Investment Potential Index

- National Council of Applied Economic Research (NCAER), Delhi based non-profit think tank on economics has launched this index in 2016.
- It ranks 20 states and 1 UT (Delhi) based on six parameters.
- They are land, labour, infrastructure, economic climate, governance and political stability and business perceptions.
- Delhi has topped followed by Tamil Nadu, Gujarat, Haryana and Maharashtra.
- Gujarat had topped both the previous editions of the ranking.
- Assam, Jharkhand and Bihar are ranked among the least favourable states for investment.

Portuguese man-of-wars

- Portuguese man-of-war is a jelly-like marine organism, commonly known as 'bluebottle' or 'floating terror'.
- It was recently spotted on the popular beach in North Goa.
- While most jellyfish stings are harmless to humans and cause only a mild irritation, species like the bluebottle are venomous and can cause harm on contact.
- Goa Tourism's beach safety agency has issued an advisory for tourists as well as residents to refrain from venturing into the sea.

IMPRINT India

- Impacting Research Innovation And Technology (IMPRINT) is the first of its kind, Pan IIT and IISC joint initiative supported by Ministry of HRD.
- It aims to develop a roadmap for research to solve major engineering and technology challenges in technology domains relevant to India.
- The focus will be in direct research in the premier institutions into areas of social relevance.

- There are 142 research projects in implementation stage under IMPRINT-1.
- The government has recently approved 122 new research projects under IMPRINT-2.
- The proposals for new research projects are open for higher education institutions including private institutions.
- The various areas covered under this research projects are Energy, Security, Healthcare, Advanced Materials, ICT and Security/Defence domains.

Relaxation in Cabotage Law

- Cabotage in shipping refers to the transport of goods or passengers between two ports within the same country by a foreign shipping operator.
- The shipping ministry has recently lifted the restrictions on foreign registered vessels on transportation of loaded or empty containers between Indian ports.
- Earlier, it was the prerogative of Indian registered shipping lines that paid taxes and were governed by Indian laws.
- It is expected that this move will lead to cargo growth in India.
- It will also improve the competitiveness of the Indian traders by reducing transshipment cost at a foreign port.
- For instance, Colombo port thrives on Indian cargo containers that passes through it and it is one of the major container transshipment hubs in the region.
- After the relaxation of rules, Colombo has cut the transshipment rates by 9.5 per cent, allowing foreign ships to operate on local routes.

Startup Academia Alliance Programme

- Startup India under Ministry of Commerce and Industry has recently launched the Startup Academia Alliance programme.
- It is a unique mentorship opportunity between academic scholars and startups working in similar domains.
- It aims to reduce the gap between scientific research and its industrial applications in order to increase the efficacy and impact of these technologies.
- The first phase of the programme was launched in partnership with Regional Centre for Biotechnology and TERI.

Exercise Maitree

- It is a joint military exercise between Indian Army and Royal Thai Army.
- It will emphasize in joint counter insurgency and counter terrorist operations in rural and urban scenario under UN mandate.
- It is going to be held in Thailand this year.

Visvesvaraya PhD Scheme

- The scheme is initiated by Ministry of Electronics and Information Technology.
- It is launched with an intent to enhance India's competitiveness in knowledge intensive sectors.
- Its objective is to enhance the number of PhDs in Electronics System Design & Manufacturing (ESDM) and IT/IT Enabled Services (IT/ITES) sectors in the country.
- The salient features of the scheme are
 - It provides 25% more fellowship amount than most of the other PhD Schemes.
 - Part-time PhD candidates get one time incentive on completion of the PhD.
 - Scheme also supports 200 Young Faculty Research Fellowships in the areas of ESDM and IT/ITES with the objective to retain and attract bright young faculty members in these sectors.

National Commission for Backward Classes

- The 123rd constitutional amendment bill to provide constitutional status to the National Commission for Backward Classes secured parliament's approval.
- The Present NCBC is a statutory body, created in 1993.
- Its power is limited only to recommend to the government inclusion or exclusion of a community in the central list of OBCs.
- Also, the power to hear complaints of the OBCs and protect their interests remained with the National Commission for Scheduled Castes.
- After this amendment, NCBC will be able to enforce the safeguards provided to the Socially and Educationally Backward Classes (SEBCs) and solve their grievances.
- The bill gives the proposed Commission the power to inquire into complaints of deprivation of rights and safeguards.

- It gives it the powers of a civil court trying a suit and allows it to summon anyone, require documents to be produced, and receive evidence on affidavit.
- It will be required to present annual reports to the President on working of the safeguards for backward classes.
- These reports will be tabled in Parliament, and in the state legislative assemblies of the concerned states.

Hypersonic Aircraft

- China has successfully tested its first wave rider hypersonic aircraft "Xingkong-2 or Stary Sky-2" that can carry nuclear warheads.
- It has the capability to penetrate any current generation anti-missile defence systems.
- Its range is 30 kms in altitude and it travels at Mach 5-5.6.

Biggest land survey exercise

- The State government of Maharashtra, along with the Survey of India, had initiated a project, which will survey about 1.20 lakh hectares using drones.
- If the current method "Electronic Total Stations (ETS) " are used, it will take 30 years to survey such a big area.
- ETS is a field instrument for surveying of land, which establishes maps and boundaries for landowners.
- Survey of India will procure the drones, survey the lands, process the images and then hand over the data to the Settlement Commissioner office of Maharashtra.

POLITY, GOVERNANCE AND PUBLIC POLICY

Deciding on Art 35-A

In News: The Supreme Court has recently adjourned the hearing on petitions relating to Article 35-A.

Background

- The Supreme Court is hearing petitions challenging the validity of Art 35A.
- The legitimacy of the Instrument of Accession, by which J&K united with India, is in question.
- The validity of the negotiations which led to the adoption of Article 370 is also questioned.
- [Article 370 underscores J&K's special legal status, and has actually given the Centre the power over that state.]
- The case has been adjourned as J&K administration and Centre cited local poll preparations.
- The Centre also said an interlocutor has been appointed and the talks are going on.

Art 35-A

- Article 35A allows the Jammu and Kashmir legislature to define the list of '**permanent residents**' of the state, who -
 1. are eligible to vote
 2. can work for the state government
 3. can own land, buy property
 4. can secure public employment and college admissions, etc.
- Only the J&K assembly can change the definition of PR through a law ratified by a two-thirds majority.
- It provides some special rights and guarantees to safeguard the unique identity of the people of J&K. Non-permanent residents are denied all these rights.
- This article is being challenged on the ground of **gender discrimination**. This is because a male resident will not lose the right of being a permanent resident even after marriage to a woman from outside.
- A woman from outside the state shall become a permanent resident on marrying a male permanent resident of the state.
- However, a daughter who is born state subject of J&K will lose the right of being a permanent resident on marrying an outsider.
- It discriminates against women who marry outside the State from applying for jobs or buying property.
- This is said to be **against the spirit of Article 14** of the Constitution which provides for equality before the law and the equal protection of the laws.

Significance of the Case

- Art 35A was added to the constitution through the Constitution (Application to Jammu and Kashmir) Order, 1954, a presidential order not yet ratified by the Parliament.

- It is being challenged that the provision was “unconstitutional” and approved without any debate in the parliament.
- The J&K government sees **Art 35A** as offering the **state a special position**.
- On the other hand, the Centre differs on the grounds that it discriminates against women and is calling for a larger debate.
- The issue is now getting a **political** tone leading to tensions between the state and the central government.
- There are also apprehensions that any adverse order against the provision could give the state's **separatists** a chance to stir up **violence in the state**.
- It is high time that the governments place the **rights and privileges of the people** of the state above political motives and deal it accordingly.

contention

- **Rights** - From a purely individual rights or economic integration perspective, the case for 35A is not clear-cut.
- There is a contention that any restrictions differentiating residents and non-residents are inherently discriminatory.
- But this argument would not only invalidate 35A with respect to Kashmir alone.
- Several other states including Mizoram, Nagaland and Himachal would also be affected by it.
- **Constitution** - Art 370 is the only mechanism that allows the Indian Union to legally exercise power in Kashmir.
- Abrogating that mechanism is not just abrogating a specific policy.
- It would amount to repudiation of an important part of the legal structure which India's claims rest upon.

Court's stance

- As a matter of law, the status of Art 35-A had been considered by the Supreme Court in the past.
- The Court had observed that the Indian state needs to honour the terms and conditions in different instruments of accession.
- Accordingly, the SC had noted that essentially, the laws governing J&K are part of a political settlement.
- So it is up to the political process to modify the terms of the settlement, and not that of the judiciary.

Way Forward

- The challenge in leaving it to political process is that the application of this principle could be deeply politicised.
- So the Supreme Court can instead uphold the validity of 35A through its judgement.
- Nevertheless, it should also ensure to not completely leave it to the mercy of the J&K assembly when it comes to discrimination issues.

DNA Technology Regulation Bill - 2018

Context:

- The DNA Technology (Use and Application) Regulation Bill, 2018 has been introduced in the Parliament recently.
- While it intends to create a national DNA database for solving crimes, there are multiple flaws in the bill that need rectification.

Key features of the bill

- “Home Ministry” recently circulated a set of guidelines on how to search crime scenes and collect, store and transport DNA samples.
- But considering the lack of expertise within our police departments and the carefree attitude for procedural compliances, there are imminent risks.
- This Bill provide certain procedure to be followed while handling with DNA and it will also establish some regulating bodies such as:
- **Use of DNA Data:** Under the Bill, DNA testing is allowed only in respect of matters listed in the schedule to the Bill (such as, for offences under the Indian Penal Code, 1860, for paternity suits, or to identify abandoned children).
- **Accreditation** - As many errors occur before samples get to the laboratory, there is a requirement quality assurance in the bill.
- Consideration should be given to an independent forensic science regulator, who should oversee the certification for preventing contamination.

- **Permission for use of DNA Data:** While preparing a DNA profile, bodily substances of persons may be collected by the investigating authorities. Authorities are required to obtain consent for collection in certain situations.
- **DNA Data Bank:** The Bill provides for the establishment of a National DNA Data Bank and regional DNA Data Banks, for every state, or two or more states.
- The National Data Bank will store DNA profiles received from DNA laboratories and receive DNA data from the regional Banks.
- **Regulator** - The Bill's proposed "DNA Regulatory Board" is too powerful and seems insufficiently transparent or accountable.
- Hence, these needs to be fixed and an independent ethics board should be set up to rule on aspects of privacy and other moral concerns.
- **Safeguards** - The Bill allows for involuntary collection of DNA samples from suspects of criminal cases with certain restrictions.
- Further, if it is only a case of minor offence, then a magistrate order is required before DNA samples are collected.
- Also, the Bill does have provisions for the destruction of DNA samples and removal of innocent people's DNA profiles from the database.
- However, these provisions are inadequate as, the removal of innocent people's records has not been stated to be automatic.

Concerns with the bill

- Although DNA can be an important tool here, it is important that there are safeguards to protect human rights and prevent miscarriages of justice.
- Using DNA effectively during criminal investigations requires proper crime scene examination, and trained and reliable policing.
- Further, a trusted chain of custody of samples, reliable analysis, and proper use of expert evidence in court are also vital for DNA based investigations.
- Without these, a DNA database will exacerbate problems in criminal investigations due to "false matches or misinterpretation or planting of evidence, and diverting resources".

Cost Effectiveness

- It has been budgeted to allocate a onetime Rs. 20 crore for setting up the database and Rs. 5 crore for its annual maintenance, but this is a pittance.
- Estimates have it that it would cost a lot more to keep the database live and operational and a prudent cost analysis hasn't been done yet.
- Further, other international experiences show that the success of a DNA database is driven primarily by the number of crime scene documented.
- But the proposed bill seems to want to create a database that is intensive on the number of DNA profiles of individuals rather than crime scenes.
- Notably, creating large databases is often not a cost-effective way to solve more crimes, and limited resources must be targeted effectively.

DNA Barcoding

- Scientists from Delhi University (DU) and the Wildlife Institute of India has collected genetic data of frogs and analysed it using DNA barcoding.
- The researchers found that the ornate narrow-mouthed frog, thought to be widely-distributed in Asia, is seen only in peninsular India and Sri Lanka.
- The study reveals that the ornate narrow-mouthed frog is present only in Tamil Nadu, Kerala, Karnataka, Maharashtra and Andhra Pradesh.
- The study would enable IUCN to review the conservation status of this group of frogs across South Asia at the earliest opportunity.

Social Security and Criminal Laws

In News:

- The Delhi High Court has recently struck down some provisions of the Bombay Prevention of Begging Act.
- It is imperative, in this context, to understand the colonial perceptions behind the coming in of such laws.

Criminal Tribes Act

- In 1871, the colonial regime passed the Criminal Tribes Act. This was based upon the racist British belief that many groups and communities are being criminal by birth, nature, and occupation.
- The Act unleashed a reign of terror, with systems of surveillance, police reporting, separation of families, detention camps, and forced labour.

- More than six decades after independence, India repealed the Act.
- But sadly, the “denotified tribes” continue to suffer from stigma and systemic disadvantage.
- Criminal Tribes Act is one among a range of colonial laws that dehumanised communities.
- The colonial administrators were particularly concerned about nomadic communities.
- It's because, by virtue of their movements and lifestyle, it was difficult to track, surveil, control, and tax them.
- So the Criminal Tribes Act and other such laws attempted to destroy these patterns of life.
- They were used to coerce these communities into settlements and subject them to forced labour.

Bombay Prevention of Begging Act.

- There is no any central Act in India on beggary. Hence many states and Union Territories have used the Bombay Prevention of Beggary Act, 1959 as the basis for their own laws.
- The objective was to keep the streets of then Bombay clear of the destitute, leprosy patients or the mentally ill.
- The Act, essentially, criminalises begging. It gives police the power to arrest individuals without a warrant.
- It gives magistrates the power to commit them to a “certified institution” (a detention centre).
- Detention could be up to 3 years on the commission of the first “offence”, and up to 10 years upon the second “offence”.
- Their privacy and dignity is ignored by compelling them to allow themselves to be fingerprinted.
- It authorises the detention of people “dependant” upon the “beggar” (read as family) and separation of children over the age of 5.
- Certified institutions have absolute power over detainees.
- This includes the power of punishment, and the power to exact “manual work”.
- Disobeying the rules of the institution can land an individual in jail.
- There were concerns that the Act was violating the fundamental rights of the citizen.
- The Delhi HC order is the first in the country to strike down provisions of the 1959 Act.

Concerns with the Act

- The Act has continued to exist in as many as 20 States and two Union Territories.
- The definition refers to "singing, dancing, fortune telling, performing or offering any article for sale" for receiving alms.
- The vague definitions give unchecked power to the police to harass citizens.
- The Begging Act was used just before the 2010 Commonwealth Games.
- The Delhi government took measures to take beggars off the street as their presence would embarrass the nation before foreigners.
- Such operations are also a regular part of preparing for national events, such as Independence Day and Republic Day.
- It seems to be targeting groups and communities whose nomadic patterns of life do not fit within mainstream stereotypes.
- It reflects the desire to erase public spaces of people who look or act differently.
- It conveys that the constitutional guarantees of pluralism and inclusiveness are not available to these people.

Court's order and observations

- The Delhi High Court's judgment marks a crucial step forward in dismantling a vicious legacy of colonialism.
- It comes as recognition of the fact that our Constitution is a transformative one.
- It seeks to undo legacies of injustice and lift up all individuals and communities to the plane of equal citizenship.
- Among the 25 provisions struck down are those:
 - permitting the arrest, without a warrant, any person found begging
 - taking the person to court
 - conducting a summary inquiry
 - detaining the person for up to 10 years
- The court has not struck down provisions that do not treat beggary per se as an offence.
- It has also not struck down a Section that deals with penalty for employing or causing persons to beg.
- This addresses forced begging or “begging rackets”, which are used to justify retaining the Act.

- Activists advocating repeal of the Act, however, say that these can be dealt with existing provisions in the Indian Penal Code.
- **Observations** - The Bench held that the Begging Act violated Article 14 and Article 21 of the Constitution.
- The government argued that it did not intend to criminalise “involuntary” begging.
- Court, however, noted that the definition of begging under the Act made no such distinction and therefore entirely arbitrary.
- It also held that under Art 21, it was the State’s responsibility to provide the basic necessities for survival to all its citizens.
- It stressed that poverty was the result of the state’s inability or unwillingness to discharge these obligations.
- Therefore, the state could not criminalise the most visible and public manifestation of its own failures.

Alternatives

- **Bill** - The Centre made an attempt at repealing the Act through the Persons in Distress (Protection, Care and Rehabilitation) Model Bill, 2016.
- It had provisions including doing away with the Begging Act and some provisions also allowed detention.
- It also proposes rehabilitation centres for the destitute in each district.
- But the discussion on the Bill was halted in 2016.
- **Bihar model** - Bihar government has the MukhyamantriBhikshavritiNivaranYojana in place.
- Under this, instead of detaining persons under the Act, open homes were set up.
- Through this, community outreach for destitute persons was put in place.
- Now, rehabilitation centres have been set up, with facilities for treatment, family reintegration and vocational training.

Way forward

- A court can strike down an unconstitutional law, but it cannot reform society.
- Poverty is a systemic and structural problem of the society.
- So it is the task of the legislatures and the government to replace contentious laws as the Begging Act.
- Measures focusing on rehabilitation and integration of the most vulnerable and marginalised members should be the way forward.

Lateral Entry into the Civil Services

Context:

- Recently, the government has proposed lateral entry into the civil services.
- While there are multiple concerns, the idea is neither completely new nor an anathema not should be discarded.

Current status of the proposed program

- **Actions** - The central government recently sent out a notification seeking applications to fill in 10 government posts at the “Joint Secretary” level.
- This caused anxiety among the bureaucratic ranks, and a retired bureaucrat even filed a writ against it in the Supreme Court.
- While the bureaucracy clearly feels that its turf is being violated, the response from applicants has been overwhelming.
- **Perceptions** - Some consider this as the beginning of the end of “neutral and impartial” civil services as loyalists are likely to be inducted into the services.
- This might also lead to “privatisation of the IAS” as private business houses might succeed in planting their people to influence government policies.
- But a considerable number of people also think that this is a bold decision to bring in fresh talent, and that it should be given a fair trial.

Argument in support

- Higher bureaucracy in the secretariat often has to examine proposals received from specialised departments/corporations.
- Further, consultations with other ministries/departments are to be made in order to present a report to the concerned minister for his final decision.
- Thus, a Joint Secretary to the government has the crucial function of giving implementable shape to abstract policy ideas.
- This is a complex consultative process requiring experience and expertise for which detailed procedures have been formulated.
- This complexity is what forms the nucleus of the debate on lateral entry.

- The proponents of lateral entry argue that domain specialists as against generalist career bureaucrats fit the bill better.

Argument in oppose

- An IAS officer, after years of experience at the field level, does indeed become an expert in public systems on his own right.
- Further, merely being an expert doctor doesn't equip one enough to advice on how health policy of the nation should be formulated.
- **Alternatives** – Rather than lateral entry, it has been suggested to try short term courses for IAS officers to better their domain knowledge during service.
- Graded training programs could be designed according to governance demands, and the personal interests and aptitude of existing bureaucrats.
- Ideas have also been advanced for IAS officers to gain work experience and knowledge in diverse domains, which are worth considering.
- **Introspection** - The bureaucracy needs to introspect on why some officers have become subservient to the political classes despite their stature.
- Notably, this trend continues even after retirement, as multiple lucrative post retirement options have opened up high profile government officials.

Present government machinery

- Specialists like engineers, doctors, agricultural scientists, lawyers have always had a substantial say in the decision-making and implementation.
- Besides, Secretaries to the Departments of Atomic Energy, Science & Technology, Scientific and Industrial Research, Health Research, and Agricultural Research have always been scientists of eminence.
- Similarly, in departments like the Railways, Posts, etc., all senior positions are manned by Indian Railway or Postal Service officers.
- Therefore, there is nothing very original in the new initiative other than the fact that it has been proposed for a Joint Secretary level entry.

WayForward

- As the number of such lateral entrants increases with time, there is a likelihood of the larger bureaucracy becoming politically biased.
- This fear could have been allayed if the government considers letting the Union Public Service Commission (UPSC) handle the recruitment process.
- The government should merely define the job requirements explicitly and the UPSC should look for talent that isn't available within the system.
- The lateral entry scheme, if implemented properly, may foster more competitive spirit, and break the complacency of the higher civil servants.

SC Verdict on BCCI Reforms

In News:Supreme Court has approved a new draft constitution for the Board of Control for Cricket in India (BCCI), making few alterations to Lodha Committee recommendations.

Highlights of the Verdict

- **Representation** - Lodha panel's call for "one state, one vote" was to ensure representation for every state in the BCCI.
- It had also asked for only one association from each state to be considered a full member and have voting rights.
- The Supreme Court has rejected this recommendation.
- The court disagreed that cricket could prosper only if the BCCI was represented by every State and Union Territory.
- The court noted that territoriality as a basis of exclusion would be problematic.
- As, this would ignore cricketing culture in some state, the history and contributions by such associations to cricket's prosperity.
- Instead, the court restored full BCCI memberships to three associations in Gujarat and Maharashtra each.
- **Cooling-off period** - Lodha panel report makes officer-bearers either at state or BCCI level not eligible to contest for a succeeding election.
- They would have to serve a three-year cooling period following each term.
- The BCCI objected to this stating office-bearers needed a form of continuity to apply the knowledge and experience.
- This is essential to strengthen the administration of the game as well as to strengthen the BCCI's role in the ICC.
- The Court has found a middle ground, balancing the two views.

- It allows all office-bearers to serve two consecutive terms (six years) before they serve a necessary cooling-off period.
- Nevertheless, it sticks to the maximum cumulative term of nine years.
- These include terms at both state and BCCI level, and/or a combination of both.
- Notably, all the present office-bearers have served 9 or more years.
- **Membership** - SC agreed with BCCI's view in giving full membership status for Services Sports Control Board, Railways and Association of Universities.
- There is a concern that the ruling power has control over these institutional votes.
- So Lodha panel had recommended stripping them of full membership to end government influence on BCCI's functioning.
- BCCI however argued against this saying that the Railways had employed more cricketers than any other institution.
- **Apex council** - The court upheld the panel's recommendation of an "apex council" to professionally manage the BCCI.
- The council would consist of a Chief Executive Officer, Chief Financial Officer and other officers.
- These must be recruited on a transparent and professional basis.
- It will, for the first time, have well-rounded representation, including players and women cricketers.
- The new structure will allow employed professionals to execute the decisions made by the Apex Council, making the BCCI functioning more professional.
- **Selectors** - The court modified the number of selectors from the current three to five.
- It observed that a "broad-based selection committee" was required to tap the talent pool spread across the country.
- **Besides**, SC retained the Lodha panel suggestion of barring government ministers or servants from holding cricket office.

BCCI

- The Board of Control for Cricket in India (BCCI) is the national governing body for cricket in India.
- The board was formed in December 1928 as a society, registered under the Tamil Nadu Societies Registration Act.
- It is a consortium of state cricket associations and the state associations select their representatives who in turn elect the BCCI officials.
- BCCI covertly manages its annual revenue of Rs.2,000crore. About half of the revenue is earned by way of broadcast fees of Rs.43 crore per match.
- Rest is from the International Cricket Council's fund, gate fees, and miscellaneous sponsorships.
- It don't receive funds from the Government of India.

Mudgal Committee's findings

- The Supreme Court appointed a special committee under Mukul Mudgal to investigate irregularities in the IPL and BCCI following the spot-fixing scandal.
- In November 2014, the Committee found IPL COO, Sundar Raman, CSK Team Principal Guruswami Meiyappan and Rajasthan Royals owner Raj Kundra guilty of betting.
- The report found BCCI Chief N Srinivasan guilty of not acting against the accused despite knowing their violations

Lodha Committee's recommendations

- In January 2015, the SC appointed a committee headed by Justice (Retd) RM Lodha to determine punishments for those named in the Mudgal Committee report and to recommend reforms for cricket in India particularly suggesting amendments to the processes followed by BCCI.
- The Lodha Committee report banned the owners of CSK and RR for life, from taking part in any BCCI related cricket activities in India.
- The CSK and the RR franchises have been barred in the IPL for 2 years.
- **Eligibility** - As regards the office bearers of BCCI – president, VP, secretary, joint secretary and treasurer – certain eligibility criteria has been fixed. i.e
 1. He must be an Indian,
 2. not be above the age of 70,
 3. not be a minister or government servant, and
 4. Who has not held office in the BCCI for a cumulative period for nine years.
- **Tenure** - Each office bearer will have a tenure of three years and no office bearer can hold the office for more than three terms. No office-bearer can hold two terms consecutively.

- Bringing BCCI under of the purview of RTI Act.
- It legalized betting.
- The panel felt that the move would help curb corruption in the game and recommended that except for players and officials, people should be allowed to place bets on registered sites.
- Further, each state is to have only one official cricket association registered with the BCCI.
- IPL and BCCI are to have separate governing bodies.
- Three authorities, an ombudsman for internal disputes, an ethics officer and an electoral officer are to be appointed to oversee BCCI activities.
- The Lodha committee stated that politicians and government officials may not hold posts in the BCCI.

NCBC Bill

In News: The Lok Sabha unanimously passed the Bill for constitutional status to the National Commission for Backward Classes (NCBC).

NCBC

- National Commission for Backward Classes (NCBC) is a body set up under the National Commission for Backward Classes Act, 1993.
- It has the power to examine complaints regarding inclusion or exclusion of groups within the list of backward classes, and advise the central government in this regard.
- The central and state governments will be required to consult with the NCBC on all major policy matters affecting the socially and educationally backward classes.

NCBC bill

- The Constitution (123rd Amendment) Bill, 2017 was passed in Lok Sabha, seeks to grant the National Commission on Backward Classes (NCBC) constitutional status.
- This at par with the National Commission for Scheduled Castes (NCSC) and the National Commission for Scheduled Tribes.
- Currently, under the Constitution the NCSC has the power to look into complaints and welfare measures with regard to Scheduled Castes, backward classes and Anglo-Indians.
- The Bill seeks to remove the power of the NCSC to examine matters related to backward classes.

Significance of this bill

- The Bill seeks to establish the NCBC under the Constitution, and provide it the authority to examine complaints and welfare measures regarding socially and educationally backward classes.
- The Constitution Amendment Bill states that the President may specify the socially and educationally backward classes in the various states and union territories.
- He may do this in consultation with the Governor of the concerned state, however a law of Parliament will be required if the list of backward classes is to be amended.
- The NCBC will comprise of five members appointed by the President, their tenure and conditions of service will also be decided by the President through rules.
- The duties of the NCBC will include:
 1. Investigating and monitoring how safeguards provided to the backward classes under the Constitution and other laws are being implemented.
 2. Inquiring into specific complaints regarding violation of rights.
 3. Advising and making recommendations on socio-economic development of such classes.
- Under the Constitution Amendment Bill, the NCBC will have the powers of a civil court while investigating or inquiring into any complaints.
- These powers include - Summoning people and examining them on oath, requiring production of any document or public record and receiving evidence.

Brief history of national commissions in India

- The national commissions were formed with the objective to oversee the implementation of human rights and civil liberties.
- The exercise began in January 1978 with the establishment of a central Minorities Commission, followed by a joint Scheduled Castes and Scheduled Tribes Commission.
- The Minorities Commission was eventually rechristened as the National Commission for Minorities (NCM) and placed under an Act of Parliament.
- National Commission for Women Act was passed and it was set up in January 1992, In quick succession, government decided to set up a National Human Rights Commission (NHRC).
- In 2004 Two national commissions one for minority educational institutions and protection of child rights was setup

- Union government has conferred constitutional status on the National Backward Classes Commission.

Concerns with the national commissions

- The composition and appointment mechanism for various national commissions widely differ.
- While the NHRC is headed by a former Chief Justice of India and has two members each from amongst judges and human rights experts, all appointed by a high level statutory committee.
- The Chairman and members of the National Commission on Minorities and National Commission for Women are appointed by the government in its unrestricted discretion.
- While aspirants for the chair and membership of NCM should only be persons of “eminence, ability and integrity”, the NCW chair is simply to be one “committed to the cause of women”.

Implications

- The record of successive governments in adhering to the prescribed touchstones of national commissions is disappointing.
- Under the noses of these supposedly autonomous national bodies, the situation of citizens’ human rights and civil liberties has been moving from bad to worse.
- All these institutions are maintained with an exorbitant budget and put a hole on the state exchequer and ultimately an unwarranted burden on taxpayers.

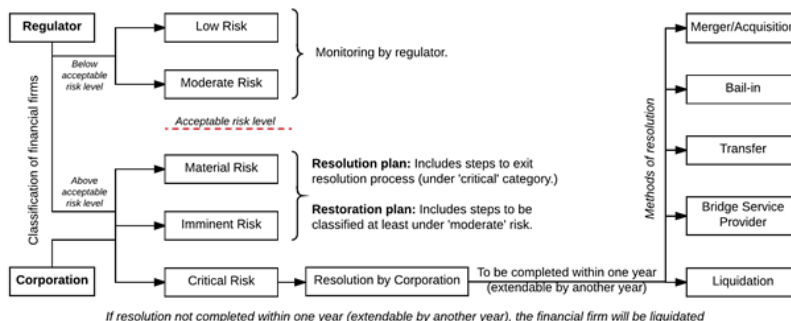
ECONOMIC AFFAIRS

FRDI Bill Withdrawal

In News: The Centre has recently withdrawn the Financial Resolution and Deposit Insurance Bill, 2017. However, there are lot many issues in relation with this, that remain unaddressed.

Highlights of the bill

- The Bill seeks to create a consolidated framework for the resolution of financial firms.
- It repeals the Deposit Insurance and Credit Guarantee Corporation Act, 1962 and amends 12 other laws.
- **Resolution Corporation** - The central government will establish a Resolution Corporation.
- The Corporation will have a Chairperson and its members will include representatives from the Finance Ministry, RBI, and SEBI, among others.
- The Corporation will-
 1. Provide deposit insurance to banks
 2. Classify service providers based on their risk, and
 3. Undertake resolution of service providers in case of failure.
- It may also investigate the activities of service providers, or undertake search and seizure operations if provisions of the Bill are being contravened.
- **Risk based classification** - The Corporation, in consultation with the respective regulators specify criteria for classifying service providers based on their risk of failure.



- A service provider categorised under the ‘imminent’ or ‘critical’ category will submit a restoration plan to the regulator, and a resolution plan to the Corporation. These plans will contain information, including: (i) details of assets and liabilities, (ii) steps to improve risk based categorisation, and (ii) information necessary for resolution of the service provider.
- **Administration** - The Corporation will take over the management of the service provider from the date when it is classified as ‘critical’.
- **Resolution** - The resolution of a service provider classified under the ‘critical’ category can be done by using
 1. Transfer of its assets and liabilities to another person,
 2. Merger or acquisition, and
 3. Creating a bridge financial,

4. Bail-in and
 5. Liquidation
- **Time limit** - The service provider will automatically be liquidated if its resolution is not completed within the maximum time period of two years.
 - **Liquidation and distribution of assets** - The Corporation will require the approval of the National Company Law Tribunal to liquidate the assets of a service provider.
 - **Offences** - The Bill specifies penalties for offences such as concealment of property, and destruction or falsification of evidence.

Opposition For

- The “bail-in” clause is one of the major provisions that had triggered opposition to the Bill.
- Banks, by the very nature of their business, are essentially dependent on the funds lent to them by depositors.
- This serves as the pool of lendable resources from which they provide credit to borrowers.
- The Bill essentially disturbs this crucial aspect.
- The bill makes a depositor apprehend of risking her hard-earned savings placed in a bank.
- The depositor is forced to partake in the pain of financial losses if the bank is forced into resolution on account of distress.

Rationale for withdrawal

- The government did make efforts to reassure the public, explaining the rationale for the Bill.
- It also tried convincing the public on the built-in “safeguards” relating to the bail-in provision.
- However, it failed to make any progress.
- So resolving the issues require a comprehensive examination and reconsideration of the Bill.
- Therefore the government deemed it “appropriate” that the Bill be withdrawn.

Concerns

- A bank failure can pose risk to the overall financial stability. So it does need specialised considerations to cope with large financial corporations on the verge of breaking down.
- But the existing frameworks have shortfalls in resolving bankruptcy scenarios among financial entities.
- The withdrawal of the FRDI Bill is thus not a solution; policymakers should reappraise the existing mechanisms.
- The progress of Insolvency and Bankruptcy Code in addressing debt resolution in the banking sector must be evaluated.
- It must also look at ways to strengthen the Deposit Insurance and Credit Guarantee Corporation.
- Holistic measures to prevent further erosion of public faith in the banking system are essential.

Diluting Capital Adequacy Norms

Context:

- Union government will reportedly hold discussions with RBI in an attempt to persuade it to dilute the capital requirements for Indian banks.
- While this is to ease the financial burden on the government with regard to recapitalisation, the move is imprudent.

Capital Adequacy

- The Capital Adequacy Ratio (CAR) is a measure of a bank's available capital expressed as a percentage of a bank's risk-weighted credit exposures.
- The Capital Adequacy Ratio, also known as capital-to-risk weighted assets ratio (CRAR), is used to protect depositors and promote the stability and efficiency of financial systems around the world.
- It measures two types of capital:
 - **Tier one capital:** This can absorb losses without a bank being required to cease trading.
 - Ratio of common stock and reserves of a bank divided by its risk-weighted assets (expressed in percentage) is called Common Equity Tier - I (CET-I).
 - Tier two capital: which can absorb losses in the event of a winding-up and so provides a lesser degree of protection to depositors.

$$\text{CAR} = \frac{\text{Tier One Capital} + \text{Tier Two Capital}}{\text{Risk Weighted Assets}}$$

Government Approach

- Currently, Indian banks are required to hold at least 5.5% of such capital in reserve, which the government is seeking to reduce.

- As RBI is the regulator in the financial sector and "CET-I" is its independent prerogative, the government will have persuade the RBI board to this end.
- Notably, the international Basel-III standards are less stringent, and require banks to keep only 4.5% in hand.

Cause for this Steps

- Bad loans within banks (particularly PSU banks) have ballooned in recent times – which have increased bank's "capital adequacy needs".
- Notably, six public banks are close to breaching RBI's capital adequacy mandate of "5.5% for CET-I and another 2.5% for capital conservation buffer".
- Significantly, Punjab National Bank (PNB), which is the country's second-largest public sector lender, is also among those 6 banks.
- Considering this, the government is staring at the possibility of paying huge sums from its budget to aid failing banks meet their capital needs.
- In this context, the government is already under pressure due to its budgetary obligations and is seeking to ease the demands from the banking sector.

Analysis

- This would be an imprudent course that is based either on a lack of knowledge of the Indian banking sector or a lack of care.
- There is a very good reason why Indian capital adequacy ratios are higher than those recommended by the international Basel-III norms.
- This is because the health of the banking sector in India requires greater attention, given the problems of regulation.
- Notably, Indian banking is prone to judgemental errors in capital adequacy, misclassification of asset quality, and wrong application of standards.
- Such problems are common with developing countries and in fact, many countries have set even higher capital adequacy ratios than India.

Way Forward

- The basic logic of the Basel-III requirements is for greater capital to be built up at times of growth and is run down at times of weakness.
- It is not for the regulations themselves to be altered at precisely the time when they are needed to preserve the health of the banking sector.
- The government's bank recapitalisation plan to secure the health of the Indian banking system cannot be secured by reducing the required cost.
- Just because the budgetary package is falling short in terms of size does not mean that other essential regulatory requirements should be diluted.

India's Import Statistics

Context:

- India's import dependence has been on the upswing on multiple domains.
- As this a risk, India needs to tweak policies to reduce import dependence in certain domains and build export capabilities in some others.

India's import profile

- India follows an open trade policy where most products can be imported without any licence on payment of duty.
- Imports (particularly import of capital goods) make the Indian economy efficient and vibrant, but this comes along with risks.
- Substandard imports can affect the health of the people while subsidised imports harm the domestic industry.
- Further, over-reliance on a country for any product could compromise the economic and national security of the country.
- Considering all this, some countries follow an active product level import regulation policy, which could be emulated by Indian too. For this, it is prudent to analyse India's import profile closely.
- India imported goods/services worth \$465 billion in the last financial year (FY18), and almost 95% of these can be classified into 5 major categories.

Group 1: (Oil, Gold, Coal and Diamond)

- **Crude** - This group accounts for \$206 billion or almost 45% of all imports.
- In FY18, crude oil worth \$87.3 billion and petrochemicals valued at \$27.3 billion were imported into India, which is a whopping 85% of our crude needs.

- Notably, in the 1980s, India met 85% of its crude oil needs mainly from ONGC's Bombay High offshore oil-field.
- In this context, a renewed focus on exploration in India and buying of oil-fields abroad will help in reducing this massive external dependence.
- **Diamond** - India is the largest diamond polishing hub in the world, and imports, polishes and exports a large volume of diamonds.
- In FY18, India imported diamonds of value \$35 billion and exported diamonds worth \$25 billion and the remaining was consumed locally.
- In this context, it is to be noted that China is luring Indian traders to set operations there, which is a risk that Indian policy makers need to be aware of.
- A quick punishment mechanism for defaulters and a hassle-free export-import environment for honest traders are needed to retain market share in this area.
- **Gold** - With an import worth over \$37 billion in FY18, India is the second largest consumer of gold after China.
- While some of this was exported as jewellery, earning \$13 billion, gold worth a whopping \$21.6 billion was consumed locally.
- Innovative gold schemes to monetise the stagnant gold resources and also to reduce demand for gold need to be piloted to reduce this stress.
- **Coal** - India imported \$23 billion worth of coal in FY18, which is surprising considering we have reserves for meeting our needs for the next 100 years.
- Coal imports have increased largely because of demand from new power plants which are designed to use only high grade imported coal.
- Low quality of Indian coal (with high ash content of 30-40%), inability of Coal India Ltd to increase production are key reasons for surge in imports.
- Further, transport issues and poor development of technologies to increase the calorific value of local coal also make imported coal attractive.
- An early resolution of these issues will reduce imports substantially.

Group 2: (machinery, electronics and telecom)

- This group accounts for \$106 billion or 23% of India's imports.
- Machinery and auto components accounted for \$50 billion, electronics products \$34 billion, and telecom products \$22 billion.
- **Machineries** - Major machineries imported into India are - Factory machinery, parts needed to service domestic aeroplanes, auto components, IC engines, refrigeration and construction machinery, excavators, cranes, machine tools, hand tools, pumps, electrical transformers, etc.
- Indian firms can meet most of our industrial and defence requirements, but the capacities of even top firms remain un-utilised.
- This is mainly because Indian firms lose out on account of subsidised imports from China in domestic tenders, which needs to be checked.
- **Electronics & Telecom** - Major electronics products imported into India are mobile phones, computers, ICs, TVs, refrigerators, washing machines, solar cells, parts to create telecom network, and hospital equipment.
- India imports most of these products from China, which dominates the world market by a large margin.
- India has to ensure a quick export-import clearance system to promote domestic manufacturers to become part of the global value chain (GVC).
- Also, we must create mega component hubs through special economic zones, from where components needed by domestic firms may be imported in bulk.

Group 3: (Chemicals, Pharmacy and Plastics)

- This group accounts for \$60 billion or almost 13% of India's imports.
- Agro chemicals, paints and cosmetics account for \$33 billion, plastics and rubber products \$22 billion, and fertilisers and bulk drugs, \$5 billion each.
- We dependent on China for import of Active Pharmacy Ingredients (APIs) and Key Starting Materials (KSMs), which are largely overpriced.
- Realising its monopoly position, China has increased bulk drug prices by 1,200% in the past two years, which has inflated import bills multi-fold.
- India's bulk drug industry was way ahead of China's in the 1990s but fell back due to certain policy measures and predatory pricing by China.
- We must revive the API industry by addressing these shortcomings, to ensure our country's health security.

Group 4: (Steel, Metals and Minerals)

- In FY18, this group accounted for \$33 billion of our imports.
- India must watch out for dumping from countries such as China, Korea, and Japan have excess capacities, as their exports to the US and the EU would now be restricted because of tariff hikes.
- Also, India could consider sourcing the technology to domestically produce specialty steel used in automobiles and electrical equipment.

Group 5: (Agriculture)

- Agriculture sector's share in total imports stood at \$23 billion in FY18.
- While vegetable oil being the most valued item, at \$12 billion, it was followed by pulses (\$2.9 billion), and fruits, cashew and spices (\$4.3 billion).
- Imports of vegetable oil can be brought down by highlighting the health risk associated with the use of palm and many other imported oils.
- Promotional for replacing these with healthier traditional mustard, groundnut, coconut and sesame oils can be taken out.

Way Forward

- While we need to mull over managing our imports, we shouldn't end up formulating policies for protecting inefficient local industry.
- Further, we need to add globally competitive domestic capacities in select product groups with an eye on exports subsequently.
- Enhancing our export standing will help in making up for our excessive imports in certain domains that can't be manufactured domestically.

NiryatMitra

- It is a mobile app launched by the Ministry of Commerce and Industry.
- It provides wide range of information required to undertake international trade.
- The information includes policy provisions for export and import, applicable GST rate, available export incentives, tariff, preferential tariff.
- ITC (HS) code refers to Indian Trade Clarification (ITC) and is based on Harmonized System (HS) of Coding.
- It was adopted in India for import-export operations.
- This app works internally to map the ITC HS code of other countries with that of India and provides all the required data without the users bothering about the HS code of any country.

Plight of Internal Migrants

Context:

- The plight of "inter-State migrant labourers" is not very different from that of refugees who lack citizenship rights.
- While the latter is been widely debated, the former has slipped focus altogether.

Internal migrants in India

- Lack of citizenship is indeed a big blow to people's lives, as it deprives them of belongingness and some critical rights bestowed by the state.
- But, even with valid citizenship, a person uprooted from his domestic setting (district or state) might actually lose out many of his citizenry entitlements.
- Notably, India's 14 crore "rural-to-urban migrant workers" face a constant sense of anxiety with little control over their special or temporal existence.
- A large chunk of migrant labourer "shelters and workplaces" are deemed illegal within Indian cities and they are condemned to the margins.

Role of state in the lives of migrants

- While the state largely appears to be a dormant player, in reality, state is actually a negative influence on their lives in most cases.
- It is proactive in allowing the absorption of cheap labour into cities, to serve the bulging demand of the urban middle class.
- Sometimes these labourers are exploited, required to work below subsistence levels, and reside in subhuman conditions.
- Further, while state's bureaucratic machinery consciously allows migrants to settle in certain zones, the same area is then perceived as encroachment.
- The onus of documenting the workers to provide them with public utilities lies on the state, but it consciously works to derecognise them.
- Further, it conveniently brackets them as "illegal", which in turn, results in them getting labelling them as "criminals" by law enforcement agencies.

- These actions are clearly to exclude them from the larger democratic stream in order to not dilute the funding and public goods for locals.

attitude of our city planners

- “Smart Cities Mission” of 2015 proposed an investment allocation of Rs. 2,039 billion to convert 99 Indian cities into smart cities.
- While a mere 8% of the intended projects have been completed so far, forced eviction of slum dwellers have already been recorded in many cities.
- Interestingly, many smart city proposals identify slums as a “threat” to the city plan outlook, and totally fail to account for migrant labour in the schemes.
- All this is because, politically, inter-State migrants do not matter at all as their votes do not count in the destination city.
- Nonetheless, it is desirable for democratic governments to ensure equality, dignity, and provide minimum social security to all people within its territory.

IMF’s Projection on India

In News: International Monetary Fund (IMF) has posited India as the world’s growth engine for the next 30 years.

Findings of IMF

- IMF has projected a medium-term growth rate of 7.75 per cent on the back of macro-financial and structural policies to help boost inclusive growth.
- The GST and the insolvency code are rightly expected to go a long way in lifting India’s productivity.
- This will also lead to an uptick in investment activity to 32.2 per cent of GDP in 2018-19 and 2019-20, against 30.6 per cent in 2017-18.
- IMF has projected a 13.2 per cent increase in exports this year and 10.1 per cent the next.
- The Fund-Bank combine tends to view India as a counterpoint to China as a market reformer and a country with credible democratic institutions.

Growth trend

- Agricultural growth may at best be equal to what it was last year - 3.4%.
- The services sector may perform better because public expenditure will be maintained at a high level.
- The Index of Industrial Production (IIP) for the first quarter show substantial improvement.
- After several quarters of low growth, there was a strong pick-up in GDP in the last quarter of 2017-18.
- If this momentum is maintained, the growth rate (2018-19) will certainly be above 7%.
- International financial institutions have forecast a growth rate of 7.3%.
- The Reserve Bank of India (RBI) expects it to be 7.4%.
- Given these, it is essential to pay attention to the concerns that can come in the way of faster growth.

Factors to be addressed

- **External environment** - The external environment is far from reassuring favourable growth.
- Trade wars have already started and can get worse.
- Recent tariffs decisions by US, China and many others, including India, confirm this.
- Besides these, there are country-specific sanctions such as those against Iran.
- These have a direct impact on crude oil output and prices.
- **Deficit** - India benefited from the fall in crude prices earlier but this position has reversed.
- As a net importer, India’s balance of payments can get affected if crude prices rise again.
- India’s current account deficit (CAD) was as low as 0.6% of GDP in 2016-17.
- It rose to 1.9% of GDP in 2017-18, mainly because of crude price rise.
- India’s trade deficit has always remained high.
- In 2016-17, the merchandise trade deficit was 4.8% and rose to 6% of GDP the next year.
- **Banking system** - RBI released its latest financial stability report highlighting a high level of NPAs.
- The gross non-performing asset (NPA) ratio of scheduled commercial banks rose to 11.6% (March 2018).
- The ratio for public sector banks was 15.6%.
- The high NPA level has a negative impact on the provision of new credit.
- In fact, credit to the industrial sector has slowed down considerably.
- **Fiscal position** - So far in the current year, the Centre’s fiscal position has been within limits.

- The fiscal deficit position has shown improvement over the last year's corresponding period.
- There are two aspects of the fiscal position to be paid attention to.
- One relates to GST, as GST revenues are currently running behind budgetary projections.
- It is also not clear how much of the refunds are outstanding.
- Revenues may pick up in the second half but any shortfall can put fiscal position under stress.
- The second concern relates to the impact of the proposed MSPs for some agricultural commodities.
- The concerns with MSP hike in the absence of a healthy procurement system remains.
- Payments could be a serious burden to government's fiscal position if market prices fall steeply.
- This apart, there are administrative problems involved in implementing the scheme.

Macroeconomic concerns of India

- The current account deficit (CAD), or the savings-investment gap, is estimated at 2.6 per cent this fiscal and 2.2 per cent in the next.
- The rising oil prices and strong demand for imports offset by a slight increase in remittances.
- Whether a rising CAD can create situations of volatility on the external account is a moot point.
- It is not clear on what basis the IMF is banking on an improvement in investment, which has dipped from 34.2 per cent of GDP in 2014-15 to 30.6 per cent now.
- There isn't convincing evidence of any surge in demand in agriculture, industry and services.
- Apart from this an area of acute concern is India's poor socio-economic indicators, affecting both labour productivity and technological up gradation.

Measures needs to be taken

- IMF suggests that public dis savings should be curtailed to curb the CAD.
- In this situation, the reliance on FDI and portfolio flows cannot be underestimated.
- A projected headline inflation of 5.2 per cent in 2018-19 is way above the Reserve Bank's comfort level, with the IMF hoping for a prudent fiscal policy to keep it in check.
- Reducing trade documentation requirements, lowering tariffs and generally improving governance may avoid choking of growth.
- Despite supply-side reforms, which have pushed India up several notches in the 'ease of doing business index', investment needs a demand stimulus.

Panel Report on Fair Market Conduct

In News: Expert panel report of SEBI on fair market conduct has been released.

About the report

- The Securities Exchange Board of India (SEBI) has been anointed with sweeping powers to haul up offenders.
- But this has clearly failed to have a deterrent effect on the conduct of market players, with scams, frauds and accounting manipulations cropping up all too frequently at India Inc.
- In this regard SEBI-appointed expert panel on fair market conduct chaired by TK Viswanathan, the committee has released its report.

Key highlights

- The report has reviewed key securities market laws in light of recent cases and contemporary practices, to suggest changes that can make them watertight.
- The committee seeks to empower SEBI to act directly against a listed company, its directors and auditors where its books of accounts are falsified.
- Rather than rely on provisions of the Companies Act, the committee has sensibly recommended that the SEBI Act be amended to allow SEBI to prosecute entities manipulating accounts.
- The definition of fraudulent trades under the PFUTP rules has been widened to include front-running, orchestrated trades, circular trading and benchmark fixing.
- Recognising that staffing constraints at SEBI often lead to long delays in enforcement actions, the committee suggests a special fast-track process for cases involving marquee names.
- Whistle-blowers play a key role in alerting regulators to malpractice and the report recommends that SEBI, rather than the Central Government, be empowered to grant immunity to whistle-blowers.

way Forward

- The report recommendation of SEBI has proved a far more proactive regulator than the Ministry of Corporate Affairs.

- Few recommendations of the report could result in regulatory overreach, such as the suggestion to characterise trading by market players in excess of their 'verifiable financial resources' as fraud, the other is granting SEBI powers to intercept calls.
- Overall though most of the committee's recommendations are worth taking forward and, if implemented, can significantly raise the bar on the conduct of market players.
- But the sheer number of gaps flagged in this report also highlights the need for an ongoing review and updates to securities market laws at more frequent intervals.

INTERNATIONAL AFFAIRS

Responding to Yemen Civil War

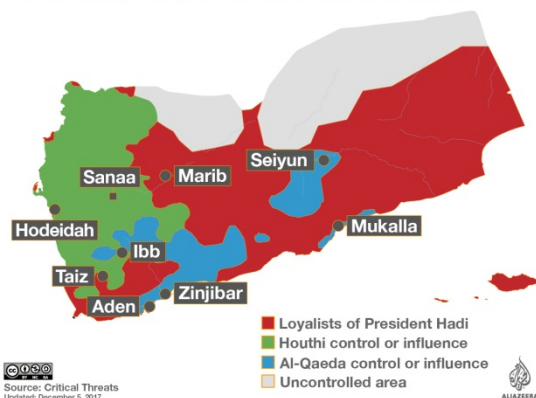
Context:

- A recent attack on a bus in a crowded market in southern Yemen has killed at least 45 people, most of them children.
- The rising toll on civilian lives calls for serious measures to address the Yemen civil war.

Background

- The Yemeni Civil War is an on-going conflict that began in 2015. It is the tussle between two factions claiming to constitute the Yemeni government.
- One is Yemen's Shia Houthi rebels, loyal to the former President. They are in clashes with forces loyal to the current government.
- The Houthi forces captured huge swathes of territory, significantly the Yemen capital Sana'a.
- Al-Qaeda in the Arabian Peninsula (AQAP) and the Islamic State of Iraq and the Levant (ISIL) are also involved in the conflict.
- Saudi Arabia led military intervention in Yemen began over 3 years ago. A coalition led by Saudi Arabia launched military operations by using airstrikes.
- This is to restore the Yemeni government which is overthrown by Houthi. The Saudi-led coalition is backed by the U.S.

Yemen: Who controls what



implications

- There is absence of a functional government in the country and the rebels are fighting the Saudi invasion.
- The attacks have targeted public infrastructure, killed thousands of civilians, and displaced many more.
- The recent attack comes in the line of atrocities as part of the Saudi's military intervention.
- Ever since the air strikes, the civilian toll had been particularly rising.
- UN reports that from March 2015 to March 2017, around 16,000 people have been killed in Yemen, including 10,000 civilians.
- Saudi Arabia's use of excessive force has plunged Yemen among the poorest in West Asia.
- The military intervention had even led to a blockade, affecting food and aid supplies.
- More than eight million people are threatened by acute hunger.
- The health-care system has collapsed and people have been cut off from regular access to clean water.
- In recent years, the country has had an unprecedented cholera outbreak that killed over 2,000 people.

Saudi's response

- The United Nations has called it the world's most severe humanitarian crisis.

- But Saudi Arabia has paid little attention to growing international criticism.
- Worryingly, it has not come under any serious international pressure to halt its catastrophic campaign.
- It even said the recent bus attack was “a legitimate military action”.
- It only accused the rebels of using children as human shields.
- The Saudis say the Houthi rebels are backed by Iran, its regional rival.
- It also claims that its campaign has been on behalf of the internationally recognised government of Yemen.
- But ironically, Yemeni President Abdrabbuh Mansour Hadi is nowhere to be seen.
- He is reported to be under house arrest in Riyadh, the Saudi capital.

way forward

- The military campaign has been a failure from a strategic point of view as well.
- Even after more than 3 years of attacks, the rebels still have their areas of influence, including Sana'a.
- It is high time the international community paid serious attention to Yemen's humanitarian crisis.
- The Crown Prince Mohammed bin Salman, the de facto ruler of Saudi Arabia should stop the war.
- He should push for a negotiated settlement between the Yemeni government and the rebels.

China's Convergence with Indo-Pak Peace

Context: China has been actively pursuing India's participation in its BRI project. In this context, if things go smoothly, the opening up of Indo-Pak cross border trade is also likely as a consequence.

BRI influencing Indo-Pak dynamics

- India has always seen China as an irritant in Indo-Pak relationship.
- But currently a number of factors might be at work in the north western region, to usher in a more positive “Indo-China-Pakistan” axis.
- **Context** - Beijing is seeking to extend “China-Pakistan Economic Corridor” (CPEC) projects to India, in order to make it more remunerative for all.
- Significantly, CPEC is part of Chinese President Xi Jinping's ambitious and expansive “Belt and Road Initiative” (BRI).
- Other countries in the region “Afghanistan, Iran, and the Central Asian Republics” have already responded very positively to the BRI.
- **Problem** - Delhi has voiced against CPEC as a matter of policy as it passes through Gilgit-Baltistan (PoK), which is a territory claimed by India.
- Further, India's long standing view that projects under BRI are economically unsustainable is another major impediment for any compromise.

How can these issues be addressed?

- Beijing led diplomacy to improve Indo-Pak ties may aid in addressing India's political concerns with CPEC.
- If China portrayed genuine neutrality on the Kashmir question, it could make it a lot easier for Delhi to become part of CPEC.
- The differences on economics of the BRI project can easily be overcome by negotiating terms on specific projects alone on a case by case basis.
- Further, despite strategic and historical reasons, Pakistan too has a lot to gain by admitting India into its infrastructural mesh.

benefits for Pakistan

- Pakistan is currently undergoing a period of extreme macro-economic stress and is on the verge of seeking foreign loans to support its budgets.
- The incoming PM Imran Khan has stated that instead of borrowing international, he wants to revive the economy through indigenous means.
- Letting India export its goods to Afghanistan and Central Asia through Pakistan's territory is of the ways to boost Pakistan's economy.
- Apart from helping Pakistan earn a handsome transit fee, it will also open up more business opportunity for truckers and other industries in Pakistan.
- Pakistan had been refusing to facilitate such trade with India for long, but the current situation seems conducive for opening up.

wayForward

- Any such sub-regional economic integration will involve cross the Indo-Pak border (or Radcliff line) that divided the erstwhile Punjab on both sides.

- Notably, Punjab was historically at the heart of trans-regional trade routes, but with partition in 1947, it has in effect become a complete dead end.
- Over the last two decades, multiple governments had been making efforts to overcome the border to facilitate trade but with little success.
- With China emerging as a major player in the region, there is indeed an enhanced thrust towards enhancing cross border businesses.

CPEC

- “China-Pakistan Economic Corridor” (CPEC) is a series of infrastructure projects that are being planned in Pakistan.
- The projects are predominantly funded by Chinese loan and is primarily to establish connectivity between China’s rural northwest and the Arabian Sea.
- Further, CPEC is just one arm of China’s larger program called “Belt and Road Initiative” (BRI) that seeks to build multiple infrastructure and connectivity projects worldwide.
- Notably, BRI has been criticised for its top-down approach and its economic imprudence which might trap host nations in debt.

DEFENCE/SECURITY AFFAIRS

Blocking Mobile Apps

In News: The Department of Telecom (DoT) is evaluating the possibility of blocking some mobile applications during emergencies.

DoT's move

- The DoT has written to telecom service providers (TSPs) and internet service providers (ISPs).
- It noted that issues had been raised by Ministry of Electronics and IT, and Law Enforcement Agencies for blocking.
- TSPs/ISPs were thus asked to explore possible ways to block mobile applications.
- This would be as per the provisions of the IT Act, 2000.
- It includes Instagram, Facebook, WhatsApp, Telegram and such other mobile applications.

Need

- The reasons are, reportedly, to stop child abuse/pornography and to curb the spread of fake news.
- It comes as a move to deal with emergencies, especially when national security and public order are under threat.
- The growing incidence of lynchings across the country invariably based on some fake news is the immediate reason.
- The move aims at blocking the applications in an emergency, rather than blocking access to the Internet as a whole.
- However, MeitY has informed DoT that blocking such apps during emergency situations was difficult.
- This is because they work through multiple IP addresses and on different protocols, and hence the request for other possible ways.

Concerns

- **Cause** - Violence triggered by spread of fake news is not purely a law and order issue.
- It is indicative of the social malaise of intolerance and prejudice in the society.
- So using blunt instruments of state censorship such as blocking applications would miss the real problem.
- **Rights** - Any such ban would violate the fundamental right of free speech.
- It would further dent India’s image as a modern society that values and protects democratic principles.
- It would, in fact, penalise majority of the users and withhold services for most genuine consumers.
- Also, it would ignore the efforts of the industry to self-regulate and make such social media platforms less prone to being misused.
- **Loss** - According to estimates, internet shutdowns cost the Indian economy over \$3 billion between 2012 and 2017.
- Some of the recent examples are the bans in Jammu & Kashmir and Rajasthan.
- The better option thus would be for the government to work with the companies concerned instead of banning the apps.

Fingerprint, Face Recognition data in CCTNS

In News: Home Affairs Ministry is planning to link fingerprint, face recognition data to the Crime and Criminal Tracking Network System (CCTNS).

CCTNS

- **Aim** - CCTNS aims at creating a comprehensive and integrated system for effective policing through e-Governance.
- It is envisaged as a countrywide integrated database on crime incidents and criminals.
- It aims to connect all police stations, with their crime and criminal data, with a central database.
- It was conceived as a response to the Mumbai attacks of 2008 and approved in 2009.
- **Implementation** - The system is already in operation in many states but with a limited coverage.
- The first phase of CCTNS is nearing completion.
- 14,500 of 15,500 police stations across the country have been connected.
- Only Bihar, for various administrative reasons, is lagging behind.

Current proposal

- As part of Phase II of CCTNS, MHA is planning to scale up fingerprint collection from all police stations and link it to CCTNS.
- It also plans to connect the Railway Protection Force's stations and their data, apart from the revenue police stations of Uttarakhand.
- The proposal has provisions for integrating face recognition system and iris scans as well with the CCTNS.
- Integration of these data will boost police department's crime investigation capabilities.
- It will also help civilian verification when needed.
- Also, lakhs of motor vehicle offences, registered by the transport department, has no central database.
- Now, this too would be connected to the CCTNS.
- This would help in ascertaining the history of criminal offences that a vehicle is involved in.

Need

- The Central Finger Print Bureau (CFPB) now stores the fingerprint database.
- It currently uses Automated Fingerprint Identification System (AFIS), also called FACTS, for matching fingerprints.
- However, this technology is an outdate one when compared to Federal Bureau of Investigation's technology (FBI of the US).
- Also, while FBI has over 4 crore fingerprints in its database, the CFPB currently has a database of just over 10 lakh fingerprints.
- Hence, scaling up data collection is an essential prerequisite for better criminal investigations.

Government moves to establish surveillance

- **Home Ministry** - The ministry recently stated its intention to create a centralised nationwide database of fingerprints of criminals.
- This is part of the proposed "Crime and Criminal Tracking Network System" (CCTNS), which also plans to include face recognition capability.
- There are also reports of the ministry seeking access to the Unique Identification Authority of India (UIDAI) biometric database.
- **SEBI** - Securities and Exchange Board of India (SEBI) had set up a panel to review the regulatory powers of it and recommend improvements.
- The panel recently recommended that SEBI be given powers to wiretap and record phone calls in order to enhance its ability to monitor insider trading.
- **Cyber Space** - The Netra (Network Traffic Analysis) system for internet monitoring has been operational for several years.
- But its exact capabilities are unknown since it is shielded from the Right to Information Act owing to security implications.
- Further, the government had also mooted creating a social media monitoring hub in order to enable "360-degree monitoring" of the social media activity.
- This was put on hold only after the Supreme Court (SC) observed that it would be akin to "creating a surveillance state".

Revenue police stations of Uttarakhand

- Uttarakhand is known for a unique police system.
- Although regular police is established, in some hill areas, jurisdiction of the police is yet to be

extended.

- So the civil officials of the Revenue Department have powers and functions of Police.
- They perform functions of police like arrest of offenders and investigation.

Way Forward

- As the years roll by since technological advances are likely to make surveillance systems even more invasive and efficient.
- But technical solutions are also being evolved to better rationalise our ability to share data online like the MIT's "Social Linked Data (Solid)" project.
- However, the mere existence of technology will not prevent the government from coercively collecting data, and laws are needed for curbing them.
- While the state needs to create such capabilities for legitimate reasons, each case of surveillance must be justified by high profile requests.
- Moreover, the right to forget regulations need to be strengthened so that citizens can ask for data to be deleted from government databases.

Next Generation Offshore Patrol Vessels

In News: The Defence Acquisition Council (DAC) has accorded approval for the procurement of 6 Next Generation Offshore Patrol vessels (NGOPVs) for the Indian Navy.

Key Facts

- It will be indigenously designed and manufactured.
- It will be fitted with state-of-the-art sensor suite with increased endurance.
- It will strengthen maritime security by its maritime interdiction operations, search & seizure operations, surveillance missions, anti-piracy missions, anti-poaching and humanitarian assistance and disaster relief.

Defence Acquisition Council

- It was constituted in 2001 to ensure expeditious procurement of the approved requirements of the Armed Forces in prescribed time frame by optimally utilizing the allocated budgetary resources.
- DAC is headed by Union Defence Ministry.
- It will give policy guidelines to acquisitions, based on long-term procurement plans.
- It will also clear all acquisitions, including imported equipment and those produced indigenously or under a foreign licence.
- It will preside over 3 wings,
 - **Defence Procurement Board** which will deal with purchases
 - **Defence Production Board** which will supervise procurement from indigenous sources, such as ordnance factories and equipment manufactured under a foreign licence
 - **Defence Research and Development Board**

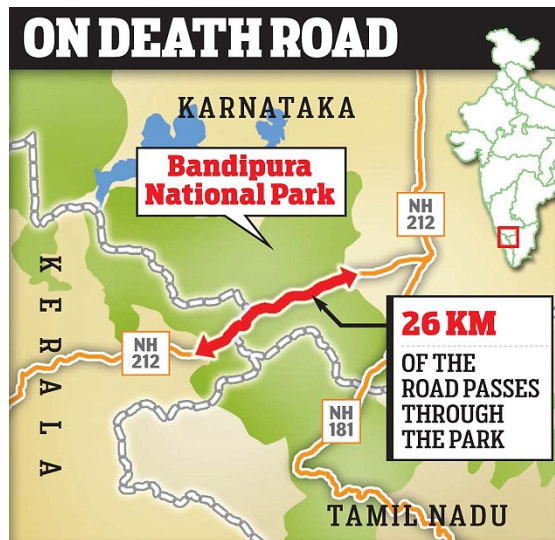
ENVIRONMENTAL AFFAIRS

Restriction on Highways - Bandipur Tiger Reserve

In News: The Centre has asked Karnataka the consent to allow night traffic on the highway passing through Bandipur Tiger Reserve.

current restriction

- The National Highway (NH) 212 cuts through the Bandipur Tiger Reserve.
- Speeding vehicles on the highway were taking a toll on the reserve's animals. This included tigers, elephants and several other endangered species.
- Karnataka High Court thus, in 2010, banned traffic between 9 pm and 6 am through the highway.
- Road kills have dropped by nearly six times after it was imposed.
- Neighbouring Tamil Nadu has imposed a similar measure in the Mudumalai Wildlife Sanctuary.



contention

- The Kerala government has contested the restriction, in the Supreme Court.
- It said it was an inconvenience to those travelling from Wayanad (Kerala) to Karnataka and also hampering the state's economic development.
- However, the Karnataka High Court order does offer a middle path.
- It suggests an alternate road to the standards of NH 212 to take care of Kerala's concerns.
- The National Tiger Conservation Authority has also spoken in favour of such a solution.
- This is an ongoing case in the Supreme Court.

Centre's proposal

- Before the arrival of SC judgement, the Centre now tries to relax this ban.
- The Centre has asked the Karnataka government to give consent to open the road 24×7 with certain mitigation measures.
- The proposal included elevating the road over four 1-km stretches to provide wildlife passageways below.
- It also proposes to fence the entire highway passing through the reserve with 8-foot-high steel wire barriers.
- **Rationale** - The argument for not going for a new alternative road is that it would be 30 km longer and pass through hilly terrain.
- It thus increases travel time, fuel consumption, and pollution.
- Also, it is argued that as traffic endangers wildlife even during the day, fencing and passageways are a better idea.

larger concerns

- **Plan** - Underpasses are unlikely to suffice in dense wildlife-rich forests where too many animals compete for space.
- For territorial animals, just four openings in a 24-km stretch may not suffice.
- They may have to use a passageway in their neighbour's territory to move between two halves of its territory (split by the highway).
- This may endanger them through the resultant habitat and prey loss.
- **Threat** - Roads, railway lines and irrigation canals become barriers that hinder wildlife movement.
- This is especially worse at night when bright headlights blind even swift species like cats.
- This, in turn, contributes to habitat loss, fragmenting wildlife populations and restricting their gene flow.
- **Global examples** - Roads have destroyed tropical rainforests in South America, Asia and Africa too.
- Though under severe pressure, the Amazon rainforests still hold over 1 million sq km of no-go zones.
- In North America and Europe, where road network is extensive and wildlife density lower, wildlife passageways are more common.
- Such features are seen in Malaysia and Kenya as well, and in South Africa, night traffic is prohibited.

policy in this regard

- National Board for Wildlife (NBWL) is the apex advisory body to the central government on all wildlife-related matters.
- In 2013, the NBWL objected to any new roads through protected forests.
- It was however open to the widening of existing roads only if alternative alignments were not available.
- It nevertheless mandated adequate mitigation measures irrespective of the cost.
- The government accepted this as the policy in 2014.
- Recently, the NBWL made it mandatory for every road/rail project proposal to include a wildlife passage plan.
- This has to be as per guidelines framed by Wildlife Institute of India.
- However, passageways have their own limitations in dense forests.

Way Forward

- Based on Karnataka's response to the Centre's request, an earlier appointed committee will finalise and submit its report before the Court.
- It is to be assessed if the 30km alternative road is an unaffordable economic burden or a minor concession necessary.

Heavy Rains in Kerala

In News:

- Southwest monsoon has caused a series of floods and landslides in several districts of Kerala.
- One of the five shutters of the Cheruthoni dam on Idukki reservoir was opened as waters rose close to the maximum storage level.

Idukki Dam

- Idukki is one of the largest arch dams in Asia that was commissioned in 1975.
- The Idukkilake sprawls across Kerala's lifeline Periyar river.
- It was created by the arch dam of Idukki, and the smaller Cheruthoni and Kulamavu dams.
- The Idukki arch dam has no shutters.
- The Cheruthoni dam has been opened only twice (1981 and 1992), both during the northeast monsoon.
- The recent one is the third time and after a gap of 26 years.
- Notably, this is the first time that the dam was opened due to rains from southwest monsoon.



Southwest monsoon in Kerala

- Kerala as a whole has received 15% excess rain and Idukki district got 41% excess until the first week of August.
- Persistent rain since the onset of the monsoon has left Idukki and other reservoirs downstream overflowing.
- The dam was opened to ease the pressure of water on the Idukkihydel reservoir.
- Also, for the first time, shutters of 22 dams including Idamalayar were opened due to heavy rains.

changing climate scenario

- Kerala's unusually heavy monsoon this year is in contrast to the long-period trend of rainfall.
- According to an analysis of data on the monsoon between 1954 and 2003, overall this part of the country had become drier in summer.
- Nevertheless, there is an emerging frequency of destructive flash floods in rare events as this.
- This trend is only expected to become stronger in the coming period.

Way forward

- With its efficient primary health care network, Kerala can take all measures to avoid epidemics.
- However, the evolving climate pattern points to the need for governments to strengthen their resilience planning.
- It should begin with a programme to relocate people away from hazard zones along the rivers.

- But finding suitable land is a challenge in a populous, forested State as that of Kerala.

Operation 'Madad'

- The operation 'Madad' has been launched by the Southern naval command at Kochi.
- It is for assisting the state administration of Kerala and undertaking disaster relief operations due to the unprecedented flooding experienced in many parts.
- Flooding in many parts is due to incessant rainfall and release of excess water from Idukki and other dams.
- INHS Sanjivani has been deployed for rendering medical assistance.

Climate Change: Our Shared Future

Context: weather patterns are becoming more common these days. Sadly, international efforts are falling short of strong outcomes due to failures to take up coordinated action.

recent climatic trends

- **Weird Weather** - In recent months, 140 wildfires raged across California and 80 people were killed in similar wildfires in Greece.
- Europe has been sizzling under heat waves and unseasonal dust storms have killed over 500 in India.
- Torrential rains in Japan and other such extreme rain events are devastating crops and homes across vast parts of the world.
- All of these weather events are far beyond normal variability (or stationarity), and is indicative of a new era of the unprecedented.
- What we know for certain is that this intensity, variability and ferocity of weird weather will only get worse from here.
- **Climatic Impact** - The connection with weird weather and climate change is also being seen through studies called attribution.
- The "World Weather Attribution Network" estimates that climate change has more than "doubled the likelihood of the European heat wave".
- It has also tripled the likelihood of drought in Cape Town — the South African city that narrowly missed Day Zero, when it would run out of water.

Statistical Scenario

- Intergovernmental Panel on Climate Change (IPCC) will soon release its 1.5°C report on the impacts of the world reaching that level of temperature rise.
- Notably, there has already been a little over 1°C rise now in comparison to the pre-industrial period, which has already generated adverse effects.
- Any further increase is hence only likely to aggravate this trend, which is already creating immense losses of lives and properties.
- While the western world is largely embracing cleaner technologies, India and China continue to depend on coal as a vital resource.
- With the massive volumes of coal that India uses, it is likely to increasingly get targeted at international forums for being irresponsible.
- Although, India has been a very small emitter in the historical and per capita measures, it will nonetheless be pressured on climatic forums.

Way Ahead

- **India's Case** - Even if not for retarding climate change, pollution levels in our cities itself is reason enough for us to adopt clean energy source.
- In this context, we need to close old and polluting thermal plants and new emission standards must be implemented as early as possible.
- Pet coke has already been banned, including its import from the US and massive renewable energy projects and natural gas projects are taking over.
- **Worldwide** - The problem also is that the world is still not anywhere close to giving up its fossil addiction, and renewable energy uptake has been marginal.
- In recent years, the demand for coal is rising and investment in oil and gas is up and all of the climate change solutions are fighting to even survive.
- Considering our vulnerability, strong and coordinated action is needed to be taken by all countries with equitable "burden sharing".

Khangchendzonga in WNBR

In News: The Khangchendzonga Biosphere Reserve in Sikkim has been included in the UNESCO designated World Network of Biosphere Reserves (WNBR).

Key Highlights

- The decision was taken at the 30th Session of International Coordinating Council (ICC) of Man and Biosphere (MAB) Programme of UNESCO held at Palembang, Indonesia.
- It has become the 11th Biosphere Reserve from India to be included in WNBR.
- The core zone of Khangchendzonga National Park was designated a World Heritage Site in 2016 under the 'mixed' category.
- The biosphere reserve is one of the highest ecosystems in the world, reaching elevations of 1, 220 metres above sea-level.

World Network of Biosphere Reserves

- The World Network of Biosphere Reserves of the MAB Programme consists of a dynamic and interactive network of sites of excellence.
- It fosters the harmonious integration of people and nature for sustainable development through participatory dialogue; knowledge sharing; poverty reduction and human well-being improvements etc.
- Thus contributing to the Millenium Development Goals.
- Accordingly, the WNBR is one of the main international tools to develop and implement sustainable development approaches in a wide array of contexts.
- Composed of 686 biosphere reserves in 122 countries, including 20 trans boundary sites, the WNBR of the MAB Programme promotes North-South and South-South collaboration.

State	List Of Biosphere Reserves
Himachal Pradesh	Cold Desert
Uttrakhand	Nanda Devi*
Sikkim	Khangchendzonga*
Arunachal Pradesh	Dehang-Debang
Assam	Manas
Assam	Dibru-Saikhowa
Meghalaya	Nokrek*
Madhya Pradesh	Panna
Madhya Pradesh	Pachmarhi*
Madhya Pradesh-Chattisgarh	Achanakmar-Amarkantak*
Gujarat	Kachehh
Odisha	Similipal*
West Bengal	Sundarban*
Andhra Pradesh	Seshachalam
Karnataka-Tamil Nadu-Kerala	Agasthyamala*
Tamil Nadu-Kerala	Nilgiri*
Tamil Nadu	Gulf of Mannar*
Andaman&Nicobar Island	Great Nicobar*

* Highlighted ones are included in World Network of Biosphere Reserves

Biosphere Reserves

- Biosphere Reserve is an international designation by UNESCO for representative parts of natural and cultural landscapes extending over large area of terrestrial or coastal/ marine ecosystems or a combination thereof.
- They are living examples of how human beings and nature can co-exist while respecting each other's needs.
- India is a signatory to the landscape approach supported by UNESCO's Man and Biosphere (MAB) programme.
- Biosphere Reserve Programme is being implemented by Government of India since 1986.
- The financial assistance under the programme is given in 90:10 ratio to the North Eastern Region States and 3 Himalayan states and in the ratio of 60:40 to other states.
- The State Government prepares the Management Action Plan which is approved and monitored by Central MAB Committee.

BIO/ HEALTH ISSUES

Deworming drive twice a year

In News: Ministry of Health and Family Welfare (MoHFW) conducts deworming drive twice a year.

Deworming

- Deworming is a process to kill worms commonly tape, round and hook worm, that infest bodies of children below 18 years of age.

- As per the guidelines, children aged below two years are given 200 gm of Albendazole tablet, a drug to treat parasitic worm infestation, and school-going children are administered 400 mg tablets.
- The Albendazole tablet paralyses the muscles of these worms; the worm loses its grip of intestinal tract and is flushed out of the human body.
- A worm takes six months to mature and start sucking; therefore the exercise is carried out biannually.
- Deworming has no serious side effects, but it can cause nausea and vomiting if a child has worms.
- The medicine disrupts the worm which leads to uneasiness in the stomach.

Significance of deworming

- Parasitic worms and their larvae are generally found in contaminated food and water.
- In slums children walk bare feet and they frequently contract worms.
- The worm first enters the blood circulation system and its larvae land up in the larynx, from where it finally reaches the gastrointestinal tract.
- The hook, round and tapeworm grow by sucking blood from its host in this case the human body.
- Loss of blood leads to a drop in haemoglobin level and causes anaemia, thus deworming kills these worms and helps prevent anaemia.
- The National Family Health Survey-3 data suggests anaemia is widely prevalent in all age groups.
- Its prevalence is 56 per cent among adolescent girls (aged 15-19) and 70 per cent among children below five years.

other initiatives of government

- Under the National Iron Plus Initiative Union Health Ministry is providing weekly dose of iron and folic acid tablets to children aged 1-18 years.
- This is to prevent iron deficiency and chances of anaemia.
- Various municipal schools in India conduct this drive by giving a weekly dose of 100 mg iron and 500 mg folic acid to adolescents (10-19 years), dosage varies for different age groups.

Medical Education for Disabled

In News: Delhi High Court has ordered the formation of a committee of experts, to examine if students with hearing impairment and dyslexia can pursue MBBS/BDS courses.

About court's order

- The order came after two cases of students with the said disabilities were denied admission to medical colleges.
- The court's order has opened up a debate on two important aspects.
- One is the actual inability of those who are physically challenged to perform a task.
- The other is whether those with specific physical and mental disabilities should be allowed to become doctors.
- It is also to do with social attitude towards those with physical and mental disabilities.

Concerns in perceptions

- The claim of inability of those who suffer from physical disabilities is not a well established one.
- There are ample examples from various fields (including medicine) where such people have excelled.
- So clearly, it is not their disability that impedes special people.
- It is rather the inability of society to provide opportunities for accessibility, and acceptance for them.
- Moreover, technological progress has opened new spheres of care, functionality and hence, inclusiveness.
- So evidently, the inability of those with disabilities is nothing more than a non-inclusive thought process.

Global Scenario

- In the United States, more than 20% of Americans live with a disability.
- But only 2% of practising physicians have disabilities.
- Despite the tiny numbers, they have associations of physicians with disabilities.
- They fight for the rights of their members.
- Also, they conduct studies to evaluate the functionality and patient attitudes towards doctors with disabilities.
- Most of these associations work within the purview of the Americans with Disability Act.

- There is thus a presence of a strong and effective statute in the US.
- It provides the associations the scope to look into issues with the medical curricula.
- They ensure that disabled-friendly curriculum is adopted throughout the country.

Indian Scenario

- In India, despite efforts by governments and activists, disability continues to be a social taboo.
- Doctors with disabilities are a minuscule part of any population.
- In the absence of scientific studies, this figure remains unknown in India.
- India does not have any association or organisation to work for the cause of doctors with disabilities.
- Even the recently formulated Right of Persons with Disabilities Act, 2016, has not dealt on the subject in detail.

Way Forward

- Doctors, if not the first, are surely the most important contact point for the diseased and the disabled.
- A person with disabilities will be more understanding towards a patient in a similar situation.
- Thus, there is a need to modify our medical curricula.
- It has to be more willing to include students with physical and mental disabilities.
- Technical standards and counselling competencies of medical education institutes have to be redefined.
- This is to better define the needs of medical students with disabilities.

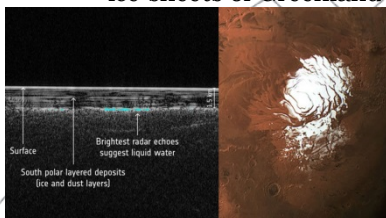
TECHNOLOGICAL AFFAIRS

Liquid Water Lake in Mars

In News: Scientists have recently discovered liquid water 'lake' in Mars. This is expected to facilitate a better understanding on the likely presence of life on Mars.

About recent finding

- **Mission** - An 11-member Italian team of researchers surveyed the Planum Australe region, or the southern polar plains of Mars.
- They used the Mars Advanced Radar for Subsurface and Ionosphere Sounding (MARSIS) instrument.
- This is low-frequency radar on board the European Space Agency's Mars Express Orbiter.
- The instrument beams radar pulses down to the planet's surface and measures how the waves reflect back to the spacecraft.
- This would give information on the kind of materials, even below the surface.
- **Findings** - The team had discovered a lake stretching for 20-km.
- It is found 1.5 km under the southern polar ice cap of Mars.
- Despite temperatures at about -68° C, the water remains in a liquid form.
- The radar profile of the lake closely matches those of sub glacial lakes on Earth, beneath the ice sheets of Greenland and Antarctica.



Formation of liquid

- Atmospheric pressure on the Martian surface is almost a hundred times less than on Earth.
- This ensures that water would not be in liquid form, but rather, as ice or vapour.
- So the presence of water is much beneath the surface.
- The liquid form could be due to the heavy presence of sodium, magnesium and calcium salts.
- This may reduce the temperature and help it retain liquid form.
- This, along with the immense pressure of the ice from above, lowers the freezing point.

significanc

- The majority of modern Mars is dry and barren.
- But plenty of evidence has been found that the Red Planet used to be a much wetter place.

- However, any liquid water was believed to be transitional, in short-lived pools or flowing down hillsides in the Martian summer.
- So the discovery of a large, stable, stagnant lake on Mars is significant.
- It offers new potential targets for future missions and places, to search for signs of past or present microbial life.
- However, the sheer saltiness of the spot raises doubts to this belief.

World Biofuel Day

In News: Pro-Active and Responsive facilitation by Interactive, Virtuous and Environmental Single-window Hub was recently launched by the Prime Minister of India.

World Biofuel Day

- World Biofuel Day is observed every year on August 10. Its aim is to create awareness about the importance of non-fossil fuels as an alternative to conventional fossil fuels.
- It is being observed by the Ministry of Petroleum & Natural Gas for the last three years.
- Since 2014, the Government of India has taken a number of initiatives to increase blending of biofuels.
- The major interventions include,
 - Administrative price mechanism for ethanol,
 - Simplifying the procurement procedures of Oil Marketing Companies.
 - Ethanol blending in petrol (from 38 crore litres in the ethanol supply year 2013-14 to 141 crore litres in 2017-18),
 - Setting up of 2nd generation Bio-refineries to augment ethanol supply.
 - National Policy on Biofuels-2018 with the objective of reaching 20% ethanol-blending and 5% biodiesel-blending by the year 2030.
 - The policy expands the scope of feedstock for ethanol production and has provided for incentives for production of advanced biofuels.
 - Reduction of GST rates on ethanol for blending in fuel from 18% to 5%.

PARIVESH

- It is a Single-Window Integrated Environmental Management System, launched on the occasion of World Biofuel Day.
- It has been designed, developed and hosted by the Ministry of Environment, Forest and Climate Change (MOEFCC), with technical support from National Informatics Centre, (NIC).
- It has been rolled out for online submission, monitoring and management of proposals seeking various types of environment clearances from Central, State and district-level authorities.
- It enables project proponents, citizens to view, track and interact with scrutiny officers, generates online mail alerts to state functionaries in case of delays beyond stipulated time for processing of applications.

MISCELLANEOUS

Irish Way for Kashmir

Context:

- Northern Ireland witnessed some of the messiest violence in the 20th Century.
- With sustained peace having been restored for over 2 decades now, the Irish case presents a good model for Kashmir's future.

history of conflict in Ireland

- **Independence** - Ireland as a whole was a British colony from the Tudor conquest in the 17th century till the 1922 Anglo-Irish Treaty.
- Under the treaty, the island of Ireland was divided into two territories namely "Republic of Ireland and Northern Ireland".
- While former became an independent nation, the later was to remain an autonomous region within the U.K.
- Underlying this divide was a clear demographic divide between the English colonisers and the Gaelic Natives (people of the Irish lineage).
- English settlers were predominantly Protestants and were concentrated in Northern Ireland and the natives were predominantly Catholics.
- **Tensions** - Within the Northern Ireland, Catholics of Irish dissent, were a big minority and accounted for about 40% of the population.
- Due to various forms of political polarisation in the society, demographic tensions were ranging in the Northern Ireland in the 1980s.
- Violent riots and clashes between the government forces and dissenters were common in those years, resulting in numerous deaths.

- The dissenters were called Irish nationalists and argued for integration of the “Northern Ireland” with the “Republic of Ireland”.
- Contrarily, pro-government forces were called unionists who wanted to remain within the U.K. administration.

tensions resolved

- Eventually, sectarian politicians in Northern Ireland adopted the “greater autonomy” card over complete secession to negotiate with the U.K. authorities.
- Finally, the “Good Friday Agreement” was reached in 1998 and while Northern Ireland remains a part of U.K. still, peace was restored, which still holds good.
- Key to the peace process was the emergence of honest but clever brokers who understood the contradictions of the difficult process.
- This crafty diplomacy piloted by British PM Tony Blair’s government went alongside strong grievances redressing mechanisms of the affected citizenry.

Kashmir VS. Northern Ireland’s

- **Similarities** - Kashmiri conflict, like Northern Ireland’s, is also rooted in ethno-religious context and both have seen numerous violent episodes.
- In Kashmir’s case, “Kashmiri Pundits” (Hindus) are pitted against “Islamic Extremists”, much like the Catholic - Protestant divide in Northern Ireland.
- Further, it was during strongly rooted cultural right wing regimes that sectarian tensions got fuelled more in these regions.
- Much like the nationalists in Ireland, the Hurriyat leadership in India has been towing a secessionist line all along.
- **Future** - While Northern Ireland saw the emergence of witty negotiators who were trusted by both sides, Kashmiri conflict awaits them.
- But an international negotiator is likely to be an anathema to any Indian government for the fear of internationalising the issue.
- In this context, there is a need for the emergence of a local hand that is trusted by all including the hardliner Hurriyat leadership.
- While the Hurriyat demand is currently “independent Kashmir”, talks might help in mellowing down the tenor to something like greater autonomy.

wayForward

- A close look at separatist movements shows that the problem is lesser about territorial control and more about a fight for self-respect.
- Interlocutors and diplomats piloting settlements should go into this aspect in detail if they are to address the roots of the problem.
- In Kashmir’s case, both Muslims and Hindus has been emotionally brutalised due to years of political polarisation and suppression.
- Pakistan might want to play spoiler in any Indian effort to address the Kashmir issue, and only a strongly committed diplomacy can overcome this.
- While the masses in Northern Ireland continue to display polarised loyalties, violence has disappeared and expressions have taken softer conducive modes.

North Karnataka’s Sectarian Call

Context:

- Thirteen districts of north Karnataka recently raised a fresh cry for a separate State as the recent state budget was largely in favour of southern states.
- Notably, north Karnataka is underdeveloped by a big degree in comparison to the southern districts.

state of divide within Karnataka

- North Karnataka region (Bombay-Karnataka) is considerably backward due to the historic neglect in the pre-independence era.
- Further, apathy for the north after unification of Karnataka is said to have exacerbated this regional divide.
- This divide is exemplified in the contrast between the ways in which projects on the rivers Cauvery and Krishna are handled.
- People of north Karnataka have always argued that Krishna River never gets the attention that the Cauvery in south Karnataka does.
- In recent times, the delay in solving the long-pending inter-State Mahadayi river row has been cited as another pointer to the apathy towards north.

government initiatives

- The Constitution was amended to give special status to the Hyderabad Karnataka region under Article 371(J), to facilitate its faster development.
- In 2000, the S.M. Krishna-led Congress government constituted a high-powered committee (under Nanjundappa) for redress of regional imbalances.
- The committee, in its report in 2003, listed 39 taluks as the “most backward” of which most of them were from the North Karnataka.
- The committee recommended a special developmental plan of Rs. 16,000 crores across 8 years, for the backward regions to bridge the development gap.
- Further, the committee pleaded for an optimal 60:40 ratio in favour of the northern region as a basis for additional resource allocation.
- However, despite acknowledging the implementation of these recommendations, successive governments have not implemented them fully.

context within North Karnataka

- Northern Karnataka is constituted of two main regions namely – Hyderabad Karnataka and Bombay Karnataka.
- Among these, developmental lag is more severe in Hyderabad Karnataka, which was under the Hyderabad Nizams until 1947.
- Notably, two of the districts of the region – “Bidar and Kalaburagi”, were identified as the poorest districts in the country by 2005 NSSO survey.
- However, the Hyderabad-Karnataka grouping has discouraged employees from other regions to work there, and many government positions lie vacant.
- Development projects, particularly related to infrastructure and irrigation, often find lower or little allocation in comparison to other regions.

wayForward

- Lack of political will is often cited as the biggest reason for backwardness, though the region has sent five Chief Ministers so far.
- But some researchers point out that this regional imbalance is the product of plans, because plan makers have concentrated on overall development.
- Notably, in the holistic context, the focus is on the overall GDP and job growth rather than the equitable optimum growth of all regions.
- In this context, the report of the Nanjundappa committee in 2000 needs to be revived and taken forward with conviction.

INSHORT

Ease of Living Index

- It is an initiative of the Ministry of Housing and Urban Affairs (MoHUA) to help cities assess their liveability vis-à-vis global and national benchmarks.
- It ranks 111 cities based on four pillars namely Institutional, Social, Economic and Physical.
- It is based on Ease of Living assessment standards which are closely linked to the Sustainable Development Goals (SDGs).
- It encourage cities to move towards an ‘outcome-based’ approach to urban planning and management.
- It is going to be launched as part of Swachh Bharat Mission (Urban) and SwachhSurvekshan 2019.
- Three cities in Maharashtra - Pune, Navi Mumbai and Greater Mumbai topped the first Ease of Living Index.
- The national capital, New Delhi, is ranked 65 among 111 cities, while Chennai is in 14th place. Kolkata did not participate in the survey.
- The other cities in the top ten include Tirupati, Chandigarh, Thane, Raipur, Indore, Vijayawada and Bhopal.
- The three cities at the bottom of the rankings are Rampur, Kohima and Patna.

SwachhManch

- It is a web-based platform which aims to bring together every stakeholder contributing to the Swachh Bharat Mission under a common platform.
- It will allow stakeholders to create/invite/participate in volunteering opportunities around neighborhoods.
- It will enable uploads of pictorial evidence of citizens and organizations participating in the initiatives as acknowledgement of their efforts and contributions to the cause of ‘swachhata’.

- It will also be integrated with the existing Swachhata App to act as a citizens' grievance redressal platform.
- It is going to be launched as part of SwachhSurvekshan 2019.

Maize Pest

- An invasive agricultural pest Fall Armyworm (*Spodoptera frugiperda*) was discovered in Karnataka by the Indian Council for Agricultural Research.
- It is a major maize pest in North America and it arrived in Africa in 2016.
- It has spread to Central and Western Africa in 2016 and has proved very hard to control.
- It prefers Maize, but can feed on 80 species of plants, including rice, sorghum, millet, sugarcane and cotton.
- The recent attack in Karnataka is the first report of the pest in Asia. Andhra Pradesh and Tamil Nadu are at immediate risk.
- India's tropical climate could allow the pest to thrive.
- It can be controlled with insecticides, through natural enemies or by inter-cropping.

Unnat Bharat Programme 2.0

- The Government has recently launched the phase-2 of Unnat Bharat Abhiyan.
- It is the flagship programme of Ministry of Human Resource and Development.
- It aims to link the Higher Education Institutions with atleast (5) villages, to enable the institutions contribute to the economic and social betterment of these village communities using their knowledge base.
- The institutions will provide the knowledge and technology support to improve the livelihoods in rural areas.
- It will also help in upgrading the capabilities of both the public and private sectors.
- Both technical and non-technical institutions have been invited to build systems in villages as per their strengths.
- Each selected institute would adopt a cluster of villages / panchayats and gradually expand the outreach over a period of time.
- IIT Delhi has been designated to function as the National Coordinating Institute for this program.

Global Innovation Index - 2018

- The 2018 edition of the index was recently launched in New Delhi.
- The event was organized by the Confederation of Indian Industry (CII) along with the World Intellectual Property Organization (WIPO) and Department of Industrial Policy and Promotion (DIPP).
- The index developed jointly by Cornell University, the Paris-based business school Insead and WIPO in Geneva.
- The top rankers of 2018 are Switzerland, Netherlands and Sweden.
- India's rank has been improved from 60 in 2017 to 57 in 2018.
- India also ranked 1st in ICT service exports category and 4th in labour productivity growth.
- The GII indicators are grouped into innovation inputs and outputs.
- Innovation inputs capture the efforts made by the country to boost innovation.
- Innovation outputs measure the results of these efforts in terms of scientific publications, patents, trademarks, production, exports and other outputs.
- India is 2nd among middle-income economies (after China) in the indicators that capture the quality of the innovation inputs and outputs.
- NITI Aayog has decided to join hands with CII to develop a Roadmap for Top 10 Rank in GII.

Deputy Chairman - Rajya Sabha

- Harivansh Narayan Singh was elected as the Deputy Chairman of the Rajya Sabha recently.
- **Article 89** of the constitution has the provision about the method of the election of Deputy chairman of Rajya Sabha.
- The Deputy Chairman is elected from amongst the Rajya Sabha members.
- The chairman of Rajya Sabha (Vice President of India) presides over the session of election of Dy. Chairman.
- He/She presides over the proceedings of the Rajya Sabha in the absence of the Chairman of the Rajya Sabha.
- He/She will perform the functions of Rajya Sabha Chairman in case of a vacancy or when the Vice-President is discharging the functions of the President.
- There is also a panel of six Vice-Chairmen, which is constituted every year.

- A Vice-Chairman presides over the meeting of the Rajya Sabha in the absence of the Chairman or the Deputy Chairman.

Radio Galaxy Spotted

- Radio galaxies are colossal galaxies with a **super massive black hole** in their centre that actively accretes gas and dust from its surroundings. They are very rare objects in the universe.
- Most distant radio galaxy ever known, located at a distance of 12 billion light-years was discovered by Indian Telescope.
- It was found using the Giant Metrewave Radio Telescope (GMRT) in Pune, operated by the National Centre for Radio Astrophysics.
- The distance to this galaxy was determined using the Gemini North telescope in Hawaii and the Large Binocular Telescope in Arizona.
- This discovery is important for understanding of the formation and evolution of galaxies.

'One District One Product' Summit

- The President of India has recently inaugurated 'One District One Product' Summit in Lucknow, Uttar Pradesh.
- 'One District One Product' is a scheme developed by U.P state government to popularise products produced by MSME sector.
- Under the scheme, the government has set a goal of providing employment to 25 lakh people in 5 years through the financial assistance of Rs. 25,000 crores.
- It aims to improve the economic progress of MSME artisans by improving the skills of local people and increasing the reach of products.

Investors' Conference for the Holistic Development of Islands

- NITI Aayog, together with the Ministry of Home Affairs and the UT Administrations of Andaman & Nicobar and Lakshadweep hosted the conference.
- Island Development Agency (IDA), an apex body, under the chairmanship of Union Home Minister, was constituted in June 2017.
- NITI Aayog has been mandated to steer the Holistic Development of Islands program, along with the respective UT administration/ State Governments.
- Under the said program in the first phase 10 Islands in Andaman & Nicobar and Lakshadweep have been taken up for holistic development.
- The IDA has listed 11 anchor tourism projects and several other infrastructure projects such as Ro-Ro ferry services, desalination plants, digital connectivity, green energy in the first phase of holistic development of these islands.

FCTC Conference

- Framework Convention on Tobacco Control (FCTC) Conference of Parties is being organised by the World Health Organisation (WHO) at Geneva in October.
- The conference is expected to discuss steps to bring down tobacco consumption and cultivation.
- Article 17 and 18 of FCTC deal with suitable alternatives to tobacco cultivation.
- Federation of All-India Farmer Associations requested the Union Commerce Ministry to seek the inclusion of tobacco farmers' representatives in the conference.

More Assembly Seats for Sikkim

- Home Ministry has proposed to Union Cabinet to increase the number of assembly seats for sikkim from 32 to 40.
- If approved, it will be the first expansion of the Assembly since Sikkim merged with India in 1975.
- The seats are being increased to accommodate the Limboo and Tamang communities, notified as Scheduled Tribes in January 2003.
- A petition was already moved in the Supreme Court that Limboos and Tamangs were not adequately represented in the Assembly.
- SC has directed the Home Ministry in 2016 to take action regarding this.
- By the Delimitation Act, 2002, the number of seats in an Assembly can be readjusted only on the basis of the first census after 2026.
- The Second Schedule to the Representation of People Act, 1950 and Section 5A of the Representation of People Act, 1951 have been amended to change the Assembly strength.

RCEP

- The government has set up a four-member group of ministers (GoM) to advise prime minister Narendra Modi on whether to continue with or withdraw from the 16-member Regional Comprehensive Economic Partnership (RCEP) negotiations.

- RCEP is a proposed free trade agreement (FTA) between the ten member states of the ASEAN and the six states with which ASEAN has existing free trade agreements.
- Australia, China, India, Japan, South Korea and New Zealand.
- Brunei, Cambodia, Indonesia, Laos, Malaysia, Myanmar, Philippines, Singapore, Thailand, Vietnam are ASEAN members.
- RCEP is viewed as an alternative to the TransPacific Partnership (TPP), a proposed trade agreement which includes several Asian and American nations but excludes China and India.
- The arrangement is also open to any other external economic partners, such as nations in Central Asia and remaining nations in South Asia and Oceania.
- RCEP will cover trade in goods, trade in services, investment, economic and technical co-operation, intellectual property, competition, dispute settlement and other issues.

FDI in education institutions

- The Government has allowed Foreign Direct Investment (FDI) upto 100% under automatic route in the educational institutions.
- Consolidated FDI Policy of 2017 has accorded this limit but subject to applicable laws, rules/regulations/security conditions.
- UGC and All India Council for Technical Education (AICTE) have issued regulations/guidelines on collaboration between Indian and Foreign Universities.
- It is with a view to increase synergy between Indian and foreign academic institutions and to improve curriculum and educational content.
- As per these regulations, Indian Universities and Colleges having the highest grade of accreditation/threshold accreditation, can apply online to the UGC for starting twinning arrangement with Foreign Educational Institutions (FEI) having the prescribed quality.

Parker Solar Probe

- NASA's Parker Solar Probe is the mankind's first mission to 'touch' the Sun.
- Parker Solar probe will perform the closest-ever observations of the Sun's outer atmosphere, called the corona.
- Corona is a region of the Sun only seen from Earth when the Moon blocks out the Sun's bright face during total solar eclipses.
- This probe will take a seven-year long journey to unlock the mysteries of Sun's fiery outer atmosphere and its effects on space weather.

SSLV

- A small Indian satellite launch vehicle has been developed by ISRO, it costs looks set to revolutionise the global satellite launch industry.
- The Small Satellite Launch Vehicle (SSLV) will be an on-demand rocket for small satellites weighing about 500-700 kg, it will act as a quick response space vehicle.
- It will be autonomous and highly intelligent, versatile and capable of adapting to different launch situations and requirements.

PEGylated Streptokinase

- CSIR has developed a Novel Biological Entity (NBE), new Clot buster, PEGylated Streptokinase.
- Novel Biological Entity (NBE) is a thrombolytic protein for ischemic stroke.
- PEGylated Streptokinase would reduce the probability of haemorrhage over current treatment regimens of thrombolytic drugs for acute stroke.
- This technology is all set to revolutionize the treatment of ischemic strokes.

Ischemic Stroke

- Deprived of oxygen and other nutrients, the brain suffers damage as a result of the stroke.
- Ischemic stroke is a condition caused by a dysfunction in the supply of blood to the brain.
- Ischemic stroke can be divided into two main types:
 1. Thrombotic stroke - It occurs when diseased or damaged cerebral arteries become blocked by the formation of a blood clot within the brain.
 2. Embolic strokes - It is caused by a blood clot or plaque debris that develops elsewhere in the body and then travels to one of the blood vessels in the brain through the bloodstream.

Lab for Conservation of Species

- The Laboratory for the Conservation of Endangered Species (LaCONES) is India's only facility for conservation of endangered species.
- It is a dedicated facility of CSIR's Centre for Cellular and Molecular Biology (CCMB) in Hyderabad.
- It was set up in 2007 with the support of Department of Biotechnology, Central Zoo Authority, Council of Scientific and Industrial Research (CSIR) and Govt. of Andhra Pradesh.

- It uses modern biotechnologies for conservation of endangered wildlife.
- It supports both in-situ habitat preservation and Ex-situ conservation through captive breeding in controlled environment to restock original wild populations.
- It is the only laboratory in India that has developed methods for collection and cryopreservation of semen and oocytes from wildlife and successfully reproducing endangered blackbuck, spotted deer and Nicobar pigeons.
- It has established Genetic Resource Bank for Indian wildlife and collected genetic resources from 23 species of Indian wild animals.

SwadeshDarshan Scheme

- It is one of the flagship scheme of Ministry of Tourism for development of thematic circuits in the country in a planned and prioritised manner.
- It is a central sector scheme.
- The following thematic circuits have been identified, for development namely North-East India Circuit, Buddhist Circuit, Himalayan Circuit, Coastal Circuit, Krishna Circuit, Desert Circuit, Tirtankar circuit, Tribal Circuit, Eco Circuit, Wildlife Circuit, Rural Circuit, Spiritual Circuit, Sufi circuit, Ramayana Circuit and Heritage Circuit.
- The first project under the Scheme and North-East India Circuit is going to be inaugurated in Manipur.
- The project covers two sites i.e. Kangla Fort and Khongjom.
- The completion of the projects sanctioned under the scheme would result in increased tourist inflow thereby creating employment opportunities for the local community.
- It is different from "PRASAD" scheme of Ministry of Tourism.
- National Mission on Pilgrimage Rejuvenation and Spiritual Augmentation Drive (PRASAD) focus on development and beautification of the identified pilgrimage destinations.

Kangla and Khongjom

- Kangla Fort is one of the most important historic and archaeological site of Manipur located in the heart of the Imphal city.
- It served as the seat of Manipur's power till 1891.
- Under the project, restoration and rejuvenation of old Govindajee Temple in Kangla has been carried out.
- Khongjom is the place where the last war of resistance of Anglo Manipur War of 1891 was fought.
- Under the project a Pedestrian bridge and rejuvenation of Kombirei Lake has been carried out.

POLITY, GOVERNANCE AND PUBLIC POLICY

PRA (Amendment) Bill, 2017 - Proxy Voting

In News: Lok Sabha recently passed the Representation of the People (Amendment) Bill, 2017, to allow NRIs to use proxies to cast votes on their behalf.

Background

- A 12-member committee was set up in 2014 to study mainly three options for voting by NRIs (non-resident Indians).
- These include voting by post, voting at an Indian mission abroad and online voting. The committee ruled out online polling as this could compromise "secrecy of voting".
- It also ruled out voting at Indian missions abroad as they do not have the resources to organise polling.
- In 2015, the panel finally recommended that NRIs be given the "additional alternative options of e-postal ballot and proxy voting".
- This is apart from the option of casting their vote in person.
- E-postal ballot is a ballot paper that is sent to the voter electronically and returned to the returning officer by post.
- The Law Ministry accepted the recommendation on proxy voting and the Cabinet passed the proposal to amend the law.

Aim of the Bill

- The Representation of the People (Amendment) Bill, 2017 proposes to amend the Registration of Electors Rules, 1960.
- It stipulates the physical presence of the overseas electors in the respective polling station. This is a limitation for overseas electors in exercising their franchise.
- Notably, India's diaspora population, being 16 million, is the largest in the world. But the registration of NRI voters has been relatively lower than this.

- The Bill thus aims at extending the facility of proxy voting to Indian voters living abroad.

Proxy Voting

- Voting in an Indian election can be done in three ways - in person, by post or through a proxy.
- Under proxy voting, a registered elector can delegate his/her voting power to a representative.
- This was introduced in 2003 for Lok Sabha and Assemblies elections, but on a limited scale.
- Only a "classified service voter" is allowed to nominate a proxy to cast vote on his/her behalf.
- The definition includes members of the armed forces, BSF, CRPF, CISF, General Engineering Reserve Force and Border Road Organisation.
- A classified service voter can also vote by postal ballot.

Method of Proxy Voting

- Once passed by both houses, Election Commission will amend the Conduct of Election Rules, 1961.
- This will lay down the procedure by which NRIs could nominate their proxies. Currently, the classified service voters' proxy has to be a registered voter in the same constituency.
- The proxy is appointed through Form 13F, signed by the voter and the appointed proxy.
- This is done before a first class magistrate or notary or the commanding officer of the service voter.
- The form has to be submitted to the returning officer of the seat before the nomination of candidates closes.
- The proxy will continue to represent the service voter for all polls until the service or the appointment is revoked.

Global Practices

- **UK** - A British citizen living abroad can either travel back to vote in person or vote by post. He/she can also nominate a proxy but this is subject to eligibility rules.
- This accounts the expatriate's period of stay abroad and the period for which the voter was registered in the UK.
- Those who were minors at the time of leaving the country can also vote. But this is only as long as their parent or guardian was registered to vote in the UK.
- **US** - Expatriates can vote for federal office candidates in primary and general elections. This is, notably, irrespective of how long they have been living abroad.
- Once registered, an overseas American voter will receive a ballot paper by email, fax, or download, depending on the US state. This has to be returned the same way as received.

Electors in India

- There are Following three categories of electors in India: -
- **General electors:** Every Indian citizen who has attained the age of 18 years on 1st January of the year is eligible to be registered as a voter in the polling area of the constituency where he is ordinarily resident.
- **Oversees (NRI) Electors:** An overseas elector is a person who is a citizen of India and who has not acquired citizenship of any other country.
- According to the provisions of Section 20A of the Representation of People Act, 1950, an NRI settled in foreign land can become an elector in electoral roll in India.
- **Service voter:** According to the provisions of sub - section (8) of Section 20 of Representation of People Act, 1950, service qualification means -
 - Being a member of the armed Forces of the Union ;
 - Being a member of an Armed Police Force of a State, and serving outside that state;
 - Being a person who is employed under the Government of India, in a post outside India.

Representation of People Act

- The 1950 Act provides for allocation of seats and delimitation of constituencies for elections, qualifications of voters, and preparation of electoral rolls.
- The 1950 Act permits the registration of persons in electoral rolls that are ordinarily resident in a constituency.
- These persons include service qualification their wives. This Bill replaces the term 'wife' with 'spouse'.
- The 1951 Act provides for the conduct of elections and offences and disputes related to elections.
- The 1951 Act permits an overseas voter to vote only in person. An overseas voter is a citizen of India who is absent from his place of ordinary residence in India.

Amendments to the Anti-Corruption Law

Context:

- The government got the amendments to the Prevention of Corruption Act, 1988 passed in both the houses of the parliament.
- In this context, criminalizing bribe-giving and time-bound trial is among the measures that will have immense positive implications.

About the Bill

- **Bribe Giving** - While Bribe taking is a recognized crime, bribe giving isn't a crime under current law, which is a loophole.
- Introduction of this provision is in fulfilment of India's commitment under the UN Convention Against Corruption (UNCAC) ratified in 2011.
- Notably, it is currently difficult to penalize commercial organizations involved in corruption, when the supply side of corruption is not criminalized.
- If the current amendments are passed, the commercial organization shall be punished with fine, if any person associated with them bribes officials.
- **Gains** - A public servant can currently be held guilty even if actions haven't resulted in any personal benefits but have caused undue loss to the government.
- This clause is the most used one by CBI in booking cases against officials.
- This had generated a fear psychosis and was slowing down policy decisions.
- The amendment bill proposes to drop this provision to facilitate confidence among officials to take honest decisions without fear of prosecution.
- **Checks** - The new bill has diluted the power of investigating agencies to prosecute public servants, by mandating prior approval from higher ups.
- While this is a dilution, it has been deliberately introduced in favour of public servants in order to avoid undue harassment.
- Hence, no police officer can directly conduct any inquiry in future, against a serving or retired public servant regarding the official duties.
- Nonetheless, the approval-granting authority has to grant or reject the request within 3 months, and this can be challenged in court as well.
- Rightly, this provision has not been made applicable for cases involving arrest of the public servant caught red handed for taking a bribe.
- **Hearing Out** - While now, officials face a plenty of cases filed by the public against them, the new bill proposes to safeguard them from this harassment.
- It seeks to commission a mandatory hearing from the accused official before proceeding to start an investigation into the alleged complaint.
- **Confiscations** - Unfortunately, existing anti-corruption legislation does not have inherent provisions to seize properties of those guilty of corruption.
- In the new bill, a provision has been introduced for confiscation of money or property procured by illegal means, if the accused is pronounced guilty.

Challenges

- **Specifics** - Some believe that these changes would give officials a free hand to cheat the public through the strong protections that are being built into it for them.
- Further, criminalization of bribe-giving could result in undue victimization of the public despite the clauses for protecting those coerced to give bribes.
- **General** - One of the hurdles connected with conviction of public servants is that trial of cases in a court of law takes many years for their conclusion.
- As there are a significant number of corruption cases pending for conclusion of trial, the new bill has sought daily hearing for anti-corruption cases.
- The bill also seeks to set a 4 year time limit for ending the hearing of the entire corruption case in order to convict/acquit a public servant in a short time.
- Further, as corruption has become systemic, wholesome systemic changes are needed to ensure that corruption is effectively curbed.

'Parliamentarianism' of Somnath Chatterjee

Context: Somnath Chatterjee who formerly held the office of Speaker in 14th Lok Sabha passed away recently. The contributions made by him to the parliamentary practices in Indian democracy are worth remembering.

Noteworthy contributions

Telecast - His tenure was replete with people-centric parliamentary innovations.

- He wanted to extend the visitors' gallery of Parliament to every household in the country.
- It began with the live telecast of the "zero hour" proceedings.

- He personally monitored the evolution of the Lok Sabha television channel.
- It is the world's first 24×7 TV channel to be owned and operated by Parliament.
- Its purpose is to inform people of the goings-on in Parliament on a real time basis.

Knowledge - He opened up the rich Parliament Library to researchers and media persons.

- A new museum and children's corner in the Parliament Library building was created.
- A parliamentary fora on diverse subjects was set up and a lecture series was introduced.
- This was to equip the members with knowledge on emerging trends.
- The institution of parliamentary research fellowships, Hiren Mukherjee Memorial Lecture were some of the many initiatives under his leadership.

Legislature - The dearest to Chatterjee was the principle of accountability.

- Also, the constitutionally-guaranteed supremacy of the legislature in its own sphere.
- His noteworthy bold steps in parliament in this regard include -
- enhancing the number of Standing Committees for improved oversight
- directions for the compulsory presentation of action taken on Standing Committee reports
- admission of probably the highest number of calling attention notices
- his insistence on short discussions and adjournment motions

Parliamentary diplomacy - This is another innovation that took shape under his leadership.

- Visits by Indian parliamentary delegations abroad were encouraged.
- This was done in alignment with the country's foreign policy orientation and significantly benefitted India.
- E.g. India's election to the position of Chairman of the Executive Committee of Commonwealth Parliamentary Association.

Judiciary - He held the judiciary in the highest esteem.

- He did question the constitutional validity of judicial orders regarding the conduct of the floor test in the hung Jharkhand legislature.
- However, his advice to the people who mattered was to honour the order of the Supreme Court.
- He emphasised the dignity of all institutions, including the judiciary.

Decisions - He has disposed of, a record number of Tenth Schedule (anti-defection) matters in the shortest possible time, in a fair and judicious manner.

- Not one of his many quasi-judicial pronouncements was ever challenged.
- The orders passed by him have set benchmarks in the adjudication of anti-defection matters.
- The events and achievements, and the debates generated during his period shall guide leaders in all institutions.
- It is undeniable that Somnath Chatterjee has been one of India's brightest and the most outstanding parliamentarians.

Amendment of Collection of Statistics Act

In News: Union government has amended the Collection of Statistics Act, 2008.

About the Collection of Statistics Act

- The Collection of Statistics Act, 2008, was enacted to facilitate the collection of statistics on economic, demographic, social, scientific and environmental aspects, among others.
- The Act had originally extended to the whole of India, except Jammu and Kashmir.
- The Jammu and Kashmir State Legislature enacted the Jammu and Kashmir Collection of Statistics Act, 2010, which extends to the whole of Jammu and Kashmir and is almost a replica of the Central legislation.
- The original Act of 2008 had restricted the data collected to be used only for statistical purposes.

Extension of Jurisdiction

- The 2008 Act is not applicable to Jammu and Kashmir.
- The Bill seeks to extend its jurisdiction Jammu and Kashmir for the collection of statistics pertaining to subjects under the Union or the Concurrent list of the Constitution as applicable to Jammu and Kashmir.
- These subjects include citizenship, education, banking, labour and forests.

Nodal officer

- The Bill provides for the appointment of a nodal officer by the central or state government.
- The nodal officer will coordinate and supervise statistical activities under the government by whom he is appointed.
- Further, the powers and duties of the nodal officer can be determined by the central government.

Use of Information

- The 2008 Act provides that the information collected under it can only be used for statistical purposes. The Bill removes this provision.
- It allows the central government to determine the manner in which such information collected will be used, for statistical purposes.

Significance

- The amendment will strengthen the data collection mechanism in Jammu and Kashmir.
- The Collection of Statistics Act, 2008, and the Jammu and Kashmir Collection of Statistics Act, 2010, were not applicable to statistical subjects falling in the Union List, as applicable to Jammu and Kashmir under the Constitution (Application to Jammu and Kashmir) Order, 1954.
- Moreover, the concurrent jurisdiction to be exercised by the Centre in Jammu and Kashmir has also not been provided for in the Collection of Statistics Act, 2008, the amendment statute fills the vacuum.

National Disaster Response Fund

In News: The Union government has declared the Kerala floods a “calamity of severe nature”.

Calamity of severe nature

- According to the National Disaster Management Policy, the State governments have to provide disaster relief from their respective State Disaster Response Funds (SDRFs).
- In case of “calamity of severe nature”, will additional assistance be provided from the National Disaster Response Fund (NDRF).
- There is, however, no provision in the law or rules for the government to designate a disaster as a “national calamity”.

Funding NDRF

- The National Disaster Response Fund (NDRF) was constituted under Section 46 of the Disaster Management Act, 2005.
- It supplements SDRF of a State, in case of a disaster of severe nature, provided adequate funds are not available in SDRF.
- The National Disaster Response Fund is financed through a National Calamity Contingent Duty levied on pan masala, chewing tobacco and cigarettes, and with budgetary provisions as and when needed.
- A provision exists to encourage any person or institution to make a contribution to the NDRF. However, this source of funding has not been tapped so far, according to the government.
- The 14th Finance Commission recommended changes to this structure once the cess was discontinued or subsumed within the Goods and Services Tax.
- However, the government, instead, decided to continue with the National Calamity Contingent Duty even in the GST regime.

State Disaster Response Fund

- The State Disaster Response Fund (SDRF) was constituted under Section 48 (1) (a) of the Disaster Management Act, 2005.
- It is the primary fund available with State Governments for responses to notified disasters.
- The Central Government contributes 75% of SDRF allocation for general category States/UTs and 90% for special category States/UTs (NE and Hill States).
- The annual Central contribution is released in two equal instalments as per the recommendation of the Finance Commission.
- SDRF shall be used only for meeting the expenditure for providing immediate relief to the victims.
- **Disaster (s) covered under SDRF:** Cyclone, drought, earthquake, fire, flood, tsunami, hailstorm, landslide, avalanche, cloudburst, pest attack, frost and cold waves.

national disaster

- The central government has examined proposals in the past to define a national disaster.
- However, there is no provision, executive or legal, to declare a natural calamity as a national calamity.
- Hence there is no fixed criterion to define any calamity as a national calamity.
- In this regard, the 10th Finance Commission (1995-2000) examined a proposal.
- The proposal was to term a disaster “a national calamity of rarest severity” if it affects one-third of the state's population.
- The panel did not define a “calamity of rare severity”.
- But it stated that a calamity of rare severity would necessarily have to be adjudged on a case-to-case basis.
- It would have to take into account:
 - the intensity and magnitude of the calamity

- the level of assistance needed
- the capacity of the state to tackle the problem
- the alternatives and flexibility available within the plans to provide relief, etc
- Accordingly, 2013 Uttarakhand flood and 2014 Cyclone Hudhud in Andhra Pradesh were classified as calamities of “severe nature”.

benefits of such a declaration

- On declaration as a calamity of “rare severity”/”severe nature”, support to the state government is provided at the national level.
- The Centre also considers additional assistance from the National Disaster Response Fund.
- A Calamity Relief Fund (CRF) is set up, with the corpus shared 3:1 between Centre and state.
- When CRF resources are inadequate, additional assistance is considered from the National Calamity Contingency Fund (NCCF).
- NCCF is funded 100% by the Centre.
- Relief in repayment of loans or grant of fresh loans to the affected persons on concessional terms are also considered.

Local Disaster:

- A State Government may use up to 10 percent of the funds available under the SDRF for providing immediate relief to the victims of natural disasters.
- It considers ‘disasters’ within the local context in the State and which are not included in the notified list of disasters of the Ministry of Home Affairs.
- Subject to the condition that the State Government has listed the State specific natural disasters and notified clear and transparent norms and guidelines for such disasters with the approval of the State Authority, i.e., the State Executive Authority (SEC).

National Disaster Relief Force

- NDRF is India’s elite disaster mitigation combat force established under The Disaster Management Act, 2005.
- It was established in 2006 and is headquartered in New Delhi. It functions under Union Ministry of Home Affairs.
- It is mandated to undertake special disaster response, relief, rescue operations and combat roles independently in the case of an event of any disaster (natural or man-made), accident or emergency.
- It also assists local authorities in launching a quick rescue and response operation to save life and property.
- The Disaster Management Act has statutory provisions for constitution of National Disaster Response Force (NDRF) for the purpose of specialized response to natural and man-made disasters.
- At present, NDRF has strength of 12 Battalions with each Battalion consisting of 1149 personnel.
- The practice of “proactive availability” of this Force to the States and that of “pre-positioning”, in a threatening disaster situations have immensely helped minimise damage, caused due to natural calamities in the country.

No NOTA for Rajya Sabha Election

In News: The Supreme Court on Tuesday scrapped the use of ‘None of the Above’ (NOTA) option in the coming Rajya Sabha elections.

Background

- The Election Commission had earlier released a notification that provides MLAs the NOTA (None of the above) option for elections to the three Rajya Sabha seats from Gujarat.
- The notification led to concerns being raised by major political parties.
- Against this notification a petition was filed in 2017 by to do away with the ‘NOTA’ option in Rajya Sabha elections.
- The petition was filed in connection with the Rajya Sabha election in which Congress leader Ahmed Patel was contesting.

Concerns raised by the Political Parties

- The political parties are concerned that MLAs could defy the **party whip** and invalidate their votes by opting for NOTA.
- The parties also argued that since there is open ballot for the voting in Rajya Sabha election, there is not much point in introducing NOTA.
- The political parties also questioned the authority of the EC to introduce this measure without a Constitutional amendment.

RS Elections

- According to **Article 80(4) of the Constitution**, the representatives of each State in the Rajya Sabha shall be elected by the elected members of the Legislative Assembly of the State in

accordance with the system of proportional representation by means of a single transferable vote.

- A candidate has to get a required number of votes calculated through a formula to get elected to Rajya Sabha.
- The total numbers of votes (MLAs) are divided by the number of seats going to the polls from the State, adding one vote to the number.
- In Rajya Sabha polls, the MLAs have to show their ballot paper to an authorised party agent before putting it in ballot box.
- If a member from a party exercises the NOTA option, then the total number of votes cast will go down.
- The impact of the decision of MLAs to exercise the NOTA option in elections to the Rajya Sabha will be the same as that of an abstention.
- **In Kuldip Nayar v. Union of India (2006)**, the Supreme Court has held that open ballot votes in Rajya Sabha elections against the whip will not lead to disqualification as per the Tenth Schedule (Anti-defection Law).
- But the party will be free to take disciplinary action including expulsion. The defiant voter can continue to be an MLA and his vote can also not be invalidated for defying party directions.

NOTA

- The Supreme Court in **PUCL v. Union of India**, 2013 directed the use of NOTA in the context of direct elections to the Lok Sabha and the respective State Assemblies.
- The judgment delineated that in a direct election the voters must be given an option to choose "None of the above" to express their dissatisfaction with all the candidates/ political parties on the ballot.

SC Directives

- NOTA may look attractive but its practical application defeats the fairness ingrained in an indirect election.
- More so where the elector's vote has value and the value of the vote is transferrable". Supreme Court held that the NOTA option is meant only for universal adult suffrage and direct elections.
- It cannot be used in polls held by the system of proportional representation by means of the single transferable vote as done in the Rajya Sabha.
- Supreme Court also observed that NOTA will destroy the concept of value of a vote and representation and encourage defection that shall open the doors for corruption which is a malignant disorder.

Govt. Support to Petition

- Attorney General K.K. Venugopal had completely lent the government's support to the PIL.
- Govt. argued that NOTA in indirect elections, would lead to horse-trading, corruption and use of extra constitutional methods to defeat a party candidate.
- Petitioner argued that The ECI cannot sanction the use of NOTA by way of mere circulars.
- Because a circular cannot overriding the provisions of Article 80(4) and Representation of People Act, 1951 and the Conduct of Election Rules, 1961.

EC Argument

- ECI, countered that a person, along with a right to vote, had the right not to vote.
- Justifying its decision, the EC told the court that the 2013 order did not make any distinction between direct and indirect elections.

Single Transferable Vote

- The single transferable vote (STV) is a voting system designed to achieve proportional representation through ranked voting in multi-seat organizations or constituencies (voting districts).
- Under STV, an elector (voter) has a single vote that is initially allocated to their most preferred candidate.
- Votes are totalled and a quota (the number of votes required to win a seat) derived.
- If their candidate achieves quota, he/she is elected and surplus vote is transferred to other candidates in proportion to the voters' stated preferences.
- If more candidates than seats remain, the bottom candidate is eliminated with his/her votes being transferred to other candidates as determined by the voters' stated preferences.
- These elections and eliminations, and vote transfers if applicable, continue until there are only as many candidates as there are unfilled seats.
- The specific method of transferring votes varies in different systems.

Whip

- Every political party, whether ruling or Opposition has its own whip in the Parliament. He is appointed by the political party to serve as an assistant floor leader.
- He is charged with the responsibility of ensuring the attendance of his party members in large

numbers and securing their support in favour of or against a particular issue.

- He regulates and monitors their behaviour in the Parliament. The members are supposed to follow the directives given by the whip. Otherwise, disciplinary action can be taken.
- The office of 'whip' is mentioned neither in the Constitution of India nor in the Rules of the House nor in a Parliamentary Statute. It is based on the conventions of the parliamentary government.

ECONOMIC AFFAIRS

Back Series GDP Data

In News:

- The report on back series GDP data by an expert committee set up by National Statistical Commission (NSC) was released recently.
- It has led to debates on the validity of the figures, and the MoSPI has termed the estimates 'unofficial'.

About the Report

- Back series calculations are done to link a new series of national accounts with an old series. This gives a better comparison of growth over the years.
- The NSC had constituted a Committee on Real Sector Statistics under the Chairmanship of SudiptoMundle in 2017.
- The objective was improvement and modernisation of the real sector database.
- The committee has worked out a back series for economic growth from 1994-95.

Complications

- The report compared growth rates between old series (2004-05) and new series based on 2011-12 prices.
- E.g. As per the old series (2004-05), the expansion in the GDP at constant prices was 9.57% during 2006-07. As per the new series (2011-12), the growth number stands revised at 10.08%.
- The committee has thus adjusted the GDP figures from 2005-06 to 2014-15.
- This was based on the new base period adopted in 2015 (from 2004-05 to 2011-12).
- Notably, the series was for the new form of calculation of gross domestic product (GDP) and gross value added (GVA).
- GVA gives a picture of the state of economic activity from the producers' side or supply side.
- On the other hand, GDP gives the picture from the consumers' side or demand perspective.
- The back series calculation has been complicated because of the change in methodology.
- As, some of the data used under the new methodology is not available for earlier years.
- These recommendations of the NSC Committee will be examined by MoSPI and other experts.
- The appropriate methodology to be adopted for generating the back series estimates will then be decided.
- The data would be released officially later by the MoSPI.

Key Highlights

- The GDP growth, calculated at market prices, touched double digits twice - in 2007-08 and in 2010-11.
- The overall trend follows a spurt in growth during the boom of the mid-2000s.
- It is followed by a sharp deceleration in 2008-09, the year of the global financial crisis.
- GDP growth at factor cost went down from 9.3% in 2007-08 to 6.7% in the crisis year.
- However, there was a quick recovery, with unprecedented increase in public spending and subsidies in that year.
- The stimulus helped the economy reach boom-level heights in the first years of the second UPA government.
- But a combination of over-extension, high oil prices and administrative paralysis following the anti-corruption movement caused a swift fall.
- The country went down to 5.4% growth in 2012-13 but recovery then began in 2013-14.
- It was benefitted from the current government's cautious approach to macroeconomic stability.
- Also, rapidly improving global growth and a sharp fall in oil prices helped.

Implication

- The broad structural trends in the Indian economy have not been changed by these figures.

- The average growth rate under the current NDA does not reach the levels achieved under either the first or second terms of the UPA.
- The back series reveals again that much of the expansion in the 2000s was driven by government action.
- This is the period when GDP growth is higher than GVA growth.
- (Both measures need not match because of the difference in treatment of net taxes)
- This means that subsidies are increasing more than indirect taxes.
- Worryingly, there was no major upward momentum since the broad recovery that began in 2012-13.
- This is despite the fact that global growth has largely recovered, in the past few quarters in particular.

resultant challenge

- **MCA-21** - It is an e-governance initiative of the Ministry of Company Affairs (MCA) that was launched in 2006.
- It allows firms to electronically file their financial results and advance filing of corporate accounts to calculate national accounts.
- The CSO, as usual, used the establishment-based datasets.
- These are Index of Industrial Production (IIP) and Annual Survey of Industries (ASI).
- But apart from this, it started to use the enterprise-level corporate database of MCA-21.
- **Data** - With the above change, for years preceding 2011-12, the CSO faced issues for evaluating GDP with the new base year.
- This was due to the lack of availability of the MCA-21 database.
- Hence the back series calculation proved to be a “major statistical challenge”.

Difference in GDP, GVA Imply

- As per the new methodology, CSO calculates GDP by adding product taxes to the GVA at basic prices, and removing subsidies.
- $[GDP = GVA \text{ at basic prices} + \text{Product taxes} - \text{subsidies on products}]$
- GDP, which incorporates indirect tax collections net of subsidies, should normally be higher than GVA.
- But if net indirect tax collections grow slower than subsidies, GVA could be higher than GDP.
- The new series shows that on at least 12 occasions out of 18 until 2011-12, GVA was higher than GDP.
- This is possibly because fertiliser subsidy was scaled up significantly from 2005-06 following poor agricultural growth.

Way Forward

- The macroeconomic stability must be examined more closely as recent gains are now at risk.
- At \$18 billion, the trade deficit was at a 62-month high in July, 2018.
- It is argued that the full-year current account deficit will be at least 2.8% of GDP.
- This is riskier given the fact that global capital is turning unfavourable for emerging markets.
- The government will thus have to examine ways to reach the heights of GDP growth scaled by its predecessor.
- This should, however, be done without further destabilisation of the macro-economy.

National Statistical Commission

- The Government of India through a resolution dated 1st June, 2005 set up the National Statistical Commission (NSC).
- The setting up of the NSC followed the decision of the Cabinet to accept the recommendations of the Rangarajan Commission, which reviewed the Indian Statistical System in 2001.
- The NSC was constituted with a mandate to evolve policies, priorities and standards in statistical matters.
- The NSC has four Members besides a Chairperson, each having specialization and experience in specified statistical fields.
- The Chief Statistician of India, the post created specifically as the Head of the National Statistical Office is the Secretary of the Commission.
- He is also the Secretary to the Government of India in the Ministry of Statistics and Programme Implementation.
- Commission is an advisory body. The CEO of the NITI Aayog is one of the ex-officio Member in the Commission.

TK Viswanathan Committee on Fair Market Conduct

Context:

- The SEBI-appointed TK Viswanathan committee on fair market conduct recently released its report.
- Granting more powers to Securities and Exchange Board of India (SEBI) has given way to many concerns.

About the committee

- The regulation of securities markets has evolved, since the setting up of the SEBI.
- However it is still a work in progress as mischievous practices continue to exist.
- The committee was aimed at addressing the illegal practices and ensuring fair conduct among investors.

Key recommendations

- **Malpractices** - The committee said Benami trading should also be deemed fraudulent if it leads to manipulation.
- Also, SEBI may consider any trading by players beyond their known 'financial resources' as fraud.
- The committee has suggested changes to existing regulations to better prosecute malpractices as these.
- It said the scope of regulations on fraud should not just cover intermediaries.
- It should also cover employees and agents of these intermediaries who often escape after indulging in fraudulent activity.
- It is also suggested that SEBI be given the power to grant immunity to whistle-blowers who help uncover illegal activities.
- **Insider trading** - It is a practice wherein investment decisions are made by having access to otherwise non-public information.
- Among a number of recommendations on insider trading, is the creation of two separate codes of conduct.
- One would set minimum standards on dealing with insider information by listed companies.
- The other would set standards for market intermediaries and others who are handling price-sensitive information.
- **Information** - Companies should maintain details of
 - immediate relatives of designated persons who might deal with sensitive information
 - people with whom the designated person might share a material financial relationship or who share the same address for a year
- Such information may be maintained by the company in a searchable electronic format.
- It may also be shared with the SEBI when sought on a case-to-case basis.
- **Calls** - Currently, SEBI has the power to only ask for call records including numbers and durations.
- The committee has recommended direct power for SEBI to tap telephones and other electronic communication devices.
- This is to check insider trading and other frauds.
- However, proper checks and balances over this power are to be ensured by necessary amendment in the relevant laws.
- **Front entities** - Front entities are that which lent their names or trading accounts to others.
- The committee has recommended the inclusion of a new sub-section within the SEBI Act, 1992 in this regard.
- This would specifically prohibit devices, schemes or artifices employed for manipulating the books of accounts or financial statements of a listed company.

Benefits

- A strong regulator serves as a good deterrent to fraudulent practices in the market.
- Greater executive powers can help the regulator take swifter action against offenders.
- They do not, instead, have to rely on government bodies such as the Ministry of Corporate Affairs.
- This could also free SEBI from various manifestations of political influence.
- As SEBI can better understand the complex nuances that financial market fraud entails, it may be better placed to enforce the law.

Contentions

- **Calls** - Powers such as tapping phone calls are already vested in the police and investigating agencies. E.g. CBI
- So it might be extreme and tyrannical if extended to financial regulators as well.

- This gains significance in the backdrop of the increasing importance for privacy in recent times.
- **Frauds** - SEBI is set to be granted the power to act directly against “perpetrators of financial statements fraud”.
- In essence, this means SEBI can act not only against listed entities under its extant powers.
- Rather, it could also act against those who aid or abet financial fraud, including the accountants and auditors.
- Too much of deterrence could possibly discourage and drive away the genuine investors.

Resolving Power Sector NPAs

In News: The Allahabad High Court hears petition by power companies against RBI's February 12 circular.

About the circular

- It requires banks to finalise a resolution plan in case of a default on large accounts of Rs 2,000 crore and above within 180 days.
- Failing this would result in insolvency proceedings being invoked against the defaulter.
- This would be as per the Insolvency and Bankruptcy Code (IBC) provisions.

Ongoing case

- By RBI's circular, the unresolved accounts would undergo IBC process by the end of August, 2018.
- However, the power sector producers sought relief from the court.
- Power sector is one of the most financially stressed ones.
- It has potential non-performing assets (NPAs) of Rs 2.6 trillion.
- Hence, the Centre called for regulatory relief for the power sector.
- It also sought an extension of the deadline for the sector.
- The issue has thus led to a stand-off between the Central government and the RBI.

Centre's views

- There is evidently lack of structural reforms in the power sector.
- So there is a good chance that power sector assets may not attract reasonable bids.
- Hence, strict adherence to the IBC for power sector can force banks to accept deep haircuts.
- Moreover, power sector has some issues that are unlikely to disappear in a short time.
- These include low power demand, lack of reliable coal supply, etc.
- Given this, the existing power capacity will also be destroyed if liquidation happens.
- On the other hand, recovery rates in the IBC have hovered just around 25%.
- So liquidation will not be desirable in the power sector either for the promoters or the government.

Alternatives

- The government as well as other related agencies have suggested various ways to deal with power sector NPAs.
- The government has come up with the *Sashakt scheme* which is likely to bring relief to banks.
- Banks can get rid of the NPAs from their books quickly while hoping for better recovery rates in the future.
- State Bank of India and Power Finance Corporation, with the highest exposure to the power sector, have suggested the *Samadhan scheme*.
- The Rural Electrification Corporation has suggested the *Pariwartan scheme*.

Sashakt Plan

- It is a comprehensive policy to address the problem of NPAs of PSBs based on the report of the committee formed under the chairmanship of Sunil Mehta.
- Key Features of 'Sashakt' Plan:-
- A steering committee will be constituted in every bank for disposal of stranded loan accounts up to 50 million rupees.
- The advantage will be to the small and medium companies that they have NPAs up to Rs 50 crore.
- The committee will decide about these accounts within 90 days that they need to pay more or they need to close their accounts.
- It has been decided for NPA account of Rs 50 to 500 crores that a decision will be taken to settle the debts of Lead Bank headed by them.
- More than one bank lenders to the account holders of this category, hence a settlement will be made between the lending banks.
- Other NPA accounts of more than Rs 500 crores, which will not be settled through Asset Management Company (AMC) will be settled only under Bankruptcy Act.

- To implement this, a screening committee of these banks will also be constituted which will see whether the rules are being followed in a transparent manner or not.
- Under this scheme hassles of collecting the loans from these customers will not remain on the banks.
- AMC will be fully market based and more than one AMC can be formed in the country.
- It can also include foreign-foreign companies. It is being made that the AMC will settle the NPA within 60 days.

RBI's stance

- The RBI is not convinced with the proposed alternatives.
- It relies on the two key promises that IBC holds when it comes to NPAs resolution.
- One, IBC provides the framework for getting the best possible price of assets.
- Secondly, its application ensures a speedy resolution of assets that would have been otherwise stuck in litigation for decades.
- Given these, RBI asserts that nothing should be done to dilute the IBC process.
- So the central bank says that the law should be applied equally to all.
- Accepting exception for the power sector would invite more such requests.
- This is especially true, given the rising mountain of NPAs across different sectors.

Samadhan Scheme

- Samadhan is the Scheme of Asset Management and Debt Change Structure.
- Under this, the bankers' consortium shortlisted 11 power plants with an overall capacity of over 12 GW, which are either complete or are nearing completion.
- The idea is to carry out an assessment of what would be sustainable debt of these assets.
- The remaining debt which is unsustainable would be converted into equity to be held by the banks.

Pariwartan Scheme

- 'Pariwartan' refers to 'Power Asset Revival through Warehousing and Rehabilitation'.
- This is a Central Government's scheme to protect the value of stressed power projects and prevent their distress sale under the IBC.
- The State-run Rural Electrification Corporation (REC) has identified projects with a total debt of around Rs 1.8 trillion.
- These stressed projects will be housed under an asset management and rehabilitation company (AMRC) that will be owned by financial institutions.
- The promoter's equity will be reduced to facilitate a transfer of management control and the lenders will convert their debt into equity.
- The AMRC will charge a fee and help complete the projects that are stranded for lack of funds.

Note: For AMC refer our earlier issues

RBI's Report on State Finances

Context:

- RBI's recent report on "State Finances" has pointed out the rising fiscal deficits for state governments.
- Sadly, the situation is unlikely to improve in the near term though revenue receipts are projected to go up in 2018-19.

Key Features of RBI report

Gross Fiscal Deficit

- Populist schemes, escalating pay revisions, and farm loan waivers have limited the state governments' ability to contain expenditures.
- Due to heavy borrowings and consequent unsustainable interest burdens, indebtedness of states is rising and it is crowding out capital expenditure.
- Inefficient tax collection (a pan Indian phenomenon), and the inability of States to rein in fiscal deficit has risen to epic proportions.
- 2017-18 is the 3rd consecutive year during which States were unable to contain their Gross Fiscal Deficit (GFD) within 3.0% limit.
- Notably, the 3% limit is a legal mandate that most states have pledged to under their "Fiscal Responsibility and Budget Management" target.

GST Impact

- The 0.33% shrinkage in State's "own tax revenues" (OTR) in 2017-18 vis-à-vis the Budget estimate is due to accounting issues related to GST.
- Most States have reported State GST revenue, but reporting of Integrated GST, Central GST, and GST compensation cess has not been consistent.

- While an accurate assessment of 2017-18 OTR will be available only in 2018-19, the shortfall was partially offset by greater devolution from the centre.

Salary Expenditures

- The aggregate work force of State governments exceeds that of the Union government and the salary expenditure is a big burden for them.
- 13th Finance Commission (FC) had recommended that the ratio of “salary expenditure to overall revenue expenditure” should not exceed 35%.
- But most states don’t adhere to it and some have fared as high as 55% after the pay commission revisions were implemented.

Borrowing Costs

- Despite interest payments increasing by almost 16% over 2016-17 in 2017-18 (RE), the ratio of interest payments to GDP was stable at 1.7%.
- However, the weighted average yield on state government debt, increased from 7.48% in 2016-17 inched up to 7.60% in 2017-18.
- Notably, state government’s bonds attract a premium over the Central government’s bonds, thereby making borrowing costly.

Food Subsidy

- The Centre footed around 85% of the food subsidy bill during 2015-18, but States play a vital role in food security by distributing subsidised food grains.
- **Subsidies** - During 2015-16 to 2017-18, many state governments subsidised food grains further from the central issue price up to 0.4%.
- Significantly, three States (Tamil Nadu, Karnataka and Kerala) distribute them for free to all “Antyodaya Anna Yojana” and priority household cardholders.
- Unsurprisingly, 2017-18 State subsidy bill on food grains was maximum for Tamil Nadu (Rs. 2,000 crore), followed by Karnataka (Rs. 1,000 crore).
- **DBT** - Direct benefit transfers (DBT) of food subsidies through cash transfers reduce the need for large physical movement of food grains.
- Further, it is also desirable as it would provide greater autonomy for beneficiaries to choose their consumption basket.
- But the switch to DBT requires the fulfilment of certain pre-conditions, which including complete digitisation and de-duplication of the beneficiary database.
- Also, Aadhaar seeding of bank accounts and ensuring adequate availability of food grains in the open market are other complications.

Redemption Pressures

- Most States (barring Delhi, Madhya Pradesh, Kerala, and Arunachal Pradesh) are currently excluded from the National Small Savings (NSS) Fund facility.
- This has increased redemption pressure (account closures without access to new cheap funds from NSS) on state governments.
- Notably, market borrowings of states more than doubled in the past 5 years Rs. 30,630 crore in 2012-13 to Rs. 78,900 crore in 2017-18.
- Further, states are expected to face maximum redemption pressure in 2026-27, when over Rs. 3,50,000 crore State development loans (SDL) are due.

Capital Expenditure Impact

- The inability of State governments to rein in their revenue expenditures has resulted in a crowding out of capital expenditures.
- Capital expenditures continued to be abysmally low despite marginally improving to 2.8% of GDP in 2017-18 (RE) from 2.6% in 2016-17.
- Unbudgeted pre-election expenditure in some states and implementation of remaining pay commission awards is only likely to weaken the fiscal further.
- Currently, there is minimal difference between the yields of debt issued by States with stronger and weaker fiscal profiles.
- The RBI has recommended States to secure fiscal ratings, so as to make states eligible of capitalising on loans according to their stature.

Growth and Investment Outlook for FY19

Context:

- The GDP growth outlook has recovered to over 7% currently. Nonetheless, there are still some concerns in the investment domain as indicated by the “State Investment Potential Index” report.

Growth outlook

- The Indian economy is now growing at over 7% per year despite an uncertain external environment and mixed domestic conditions.
- Further, all official and private forecasts have projected that the economy will grow at over 7% during FY19.
- This return to 7% plus growth is quite remarkable as it comes despite monetary tightening in the western world, elevated oil prices, and tariff wars.
- Though the situation is improving, rainfall is still in deficit in large parts of the economy, but prices have largely stayed stable thus far.
- The economy has also not yet fully recovered from the shocks of demonetization and the GST, although short term implications have gone.

Investment outlook

- Agriculture and the public services segment are the key drivers currently, and both are supply-driven and independent of demand-side.
- There are clearly limits to such supply-driven growth, as opposed to productivity or demand-driven growth.
- Excluding agriculture and public services, investment is perhaps the single most important driver, especially when the export outlook is bleak.
- The quarterly data indicates that the growth of real investment or “gross fixed capital formation” (GFCF) has been rising since 1st quarter of FY18.
- But the recovery remains weak and the investment rate (GFCF/GDP) remains well below the peak rate of 34.3% achieved in FY12.
- Revival of the private investment cycle is vital in this context as private investment is the main component of real capital formation.

Revival of private investments

- Macroeconomic factors like the aggregate fiscal and monetary policy stance are clearly critical for revival of the private investment cycle.
- Further, structural reforms like GST which apart from strengthening indirect tax compliance has unified India into a common market.
- Similarly, the Insolvency and Bankruptcy Code (IBC) would help reduce Non-Performing Assets (NPAs) pressure, to reviving private investment cycles.
- Apart from these macro or countrywide factors, investment conditions in individual states are also critical for private investment.
- In this context, the NCAER “State Investment Potential Index” (N-SIPI) report released recently was quite revealing.

Key Aspects of the report

- Land, labour, infrastructure, credit access, income levels, governance, cost of living, and pollution levels are major domains.
- Factors such as land policy, efficiency, and prices are critical and states like Telangana, Madhya Pradesh, Tamil Nadu are ranked as best performers.
- Availability of educated and appropriately skilled workforce and competitive wages are also vital; TN, AP and Karnataka are rated well here.
- Infrastructure like road density, rail connectivity, and availability of power relative to demand is another significant aspect for investment.
- Availability of credit is another driver in which Delhi, Punjab, Maharashtra, Haryana, Kerala and Tamil Nadu are ranked at the top.
- Further, a broad spectrum of parameters like government policy, market demand, as well as levels of per capita income is critical for investments.
- Governance pillar includes components like the maintenance of law and order, crime, corruption, efficiency of government processes.
- Tamil Nadu, Haryana, Punjab, and Gujarat, are ranked at the top in this domain, while Telangana and Bihar are rated lowly.
- On the other hand, concentration of industries can generate negative externalities of congestion, overload, high rental values and pollution.
- Pulling together all aspects, Delhi, Tamil Nadu, Gujarat, Haryana, Maharashtra, and Kerala are ranked as the top 6 investment destinations.

Other specifics of the report

- Some minor differences notwithstanding, the overall classification of performing states is consistent with other ranking exercises.
- Also, there is significant correlation between the “Ease of Doing Business” rankings of the Department of Industrial Policy and Promotion (DIPP).

- Over 86% of respondents said they had no problem acquiring land, while over 68% reported no problem in the availability of skilled labour.
- On the transition to GST, only 15% of respondents reported it was a severe problem against 56% who reported it was no problem.
- Though the investment rate is still below its past peak, the investment and growth cycles are beginning to revive.
- However, the N-SIPI report confirms an emerging pattern of divergence, with some states being left behind, which is of a concern.

Depreciating Rupee and Forex Challenges

Context:

- The Centre's response to the recent bout of weakness in the rupee has been surprisingly casual.
- Widening trade deficit and sluggish export growth could put further pressure on the country's forex reserves.

Risks and Responses so far

- While the RBI has maintained a stoic silence, the Finance Minister merely tweeted that India's foreign exchange reserves are comfortable.
- Going by the global standards, for the country's forex reserves are indeed better than many other emerging economies to meet volatilities.
- But given the changing global liquidity conditions and their impact on FDI and FPI flows (foreign capital), the present currency situation is a risk.
- The situation gets further complicated due to the structural issues - "widening trade deficit, sluggish export growth and growing imports".
- It would therefore be better to acknowledge the challenges and think about corrective action rather than be in denial.

RBI's Forex Reserves

- Taper Tantrum of 2013 and the subsequent widening of current account deficit eroded the forex reserves that the RBI had built till then.
- Since then, RBI has been very cautious with currency reserves and had built strong buffers, which reached an all-time high of \$426 billion in April 2018.
- **Investments** - Strong inflows from "Foreign Direct Investors" (FDIs) since 2013 had helped to a large extent in shoring up reserves.
- But lately with less than 5% growth in 2018, FDI flows are already down from around 25% during 2015-16.
- Foreign Institutional Investments (FII) is also likely to reduce with a net outflow of over 20,000 crores recorded this financial year.
- The reduction in foreign inflows makes it difficult for the RBI to mop up reserves, and sustain the currency value.
- Notably, in the three months from April to June 2018, the RBI has net sold \$14 billion and the reserve levels have come down by about 10% thus far.
- The import cover was 11.1 months in April 2018, but it is already down to 9.9 months currently and is likely to deteriorate further.

Effect of U.S. Federal Reserve's Action

- Foreign capital inflow into a country is a function of global liquidity conditions, which isn't very conducive lately.
- After pumping in trillions of dollars since the 2008 crisis, the Federal Reserve began shrinking its balance sheet since October 2017.
- While this is reducing liquidity in global markets, the rate hikes from the Fed are making the cost of financing expensive.
- Therefore global investors have less to spend and are reducing their investments in emerging markets including India.
- "International Monetary Fund" (IMF) estimates that the Fed's tightening can result in reducing flows into emerging markets by \$35 billion a year.

Effect of debt situation on forex

- Due the excessive liquidity in global markets after 2008, the country's external debt has doubled from \$224 billion in 2008 to \$529 billion now.
- Indian companies made the most of easy liquidity conditions overseas, increasing non-governmental external debt to 80%.
- Notably, External Commercial Borrowings (ECB) now account for over one-third of the country's total debt.

- Repayment of those loans that reach maturity in the coming months is likely to drain more forex and it will also be difficult to repay these due to less liquidity.

The Federal Reserve

- It is the central banking system of the United States of America.
- Federal Reserve is mandated to maximizing employment, stabilizing prices, and moderating long-term interest rates.
- It also include supervising and regulating banks, maintaining the stability of the financial system, and providing financial services to depository institutions, the U.S. government, and foreign official institutions.

Forex Reserves

- The forex are reserve assets held by a central bank in foreign currencies.
- It acts as buffer to be used in challenging times and used to back liabilities on their own issued currency as well as to influence monetary policy.
- Almost all countries in world, regardless of size of their economy, hold significant foreign exchange reserves.
- The components of **India's FOREX Reserves** include
 - foreign currency assets (FCAs),
 - Gold Reserves
 - Special Drawing Rights (SDRs)
 - RBI's Reserve position with International Monetary Fund (IMF).
- FCAs constitute largest component of Indian Forex Reserves and are expressed in US dollar terms.
- It maintained as a multi-currency portfolio comprising major currencies, such as, US dollar, Euro, Pound sterling, Japanese yen, etc.
- FCA excludes investment in bonds issued by IIFC (UK), amount lent to Sri Lanka under SAARC Swap and Special Currency Swap Arrangement.

SEBI's New Norms for FPIs

In News: The Securities and Exchange Board of India's revised know-your-customer norms for foreign portfolio investors (FPIs).

foreign portfolio investment

- Foreign portfolio investment (FPI) consists of securities and other financial assets passively held by foreign investors.
- It does not provide the investor with direct ownership of financial assets and is relatively liquid depending on the volatility of the market.
- Foreign portfolio investment differs from foreign direct investment (FDI), in which a domestic company runs a foreign firm.
- This is because although FDI allows a company to maintain better control over the firm held abroad, it may face more difficulty selling the firm at a premium price in the future.

SEBI's Recent Decision

- In its recent decision SEBI has mandated that non-resident Indians, overseas citizen of India and persons of Indian origin cannot be beneficial owners (BOs) of FPIs.
- The threshold for identifying beneficial owners of FPIs on controlling ownership interest is 25 per cent in case of companies and 15 per cent for partnership firms.
- The threshold has been set lower, at 10 per cent, for "high-risk" nations with a history of money-laundering and terrorism.
- FPI investments are capped at a limit of 10 per cent for the equity of a single company.
- If the limit is breached, the BOs must either be treated as a foreign direct investor or sell in order to bring shareholding below the 10 per cent limit within five trading sessions of the breach.

Concerns with the recent decision

- The definition of a BO in the Prevention of Money Laundering Act is "a natural person or persons who, whether acting alone or acting together, have controlling ownership interest in the FPI or control over the FPI."
- If a BO cannot be identified in this manner, a senior managing official of the FPI is construed to be its BO.
- Moreover, the word "control" is also defined vaguely in the Prevention of Money Laundering Act.
- It includes the right to appoint a majority of directors, or control management or policy decisions, by virtue of shareholding, management rights, shareholders' agreements and/or voting agreements.

- Taking these definitions together and given the organisational structure of most FPIs, many of them would end up with a single officer defined as the BO for SEBI'S purposes.
- The KYC form demands disclosure of intimate information such as address, date of birth, tax residency number, social security number and passport number, among others.
- Global privacy norms make FPIs uncomfortable with regard to sharing this level of information.

Way Forward

- It would be advisable for SEBI to review its order on FPI, as it is unusual for any regime anywhere to demand this level of differentiated information for KYC.
- There will also be practical difficulties in imposing the limit unless the definition of a BO is redefined pragmatically, or the limit removed.
- The intent of the circular avoiding money laundering or round-tripping of hawala funds is clear enough, but there must be less disruptive ways to do that without forcing legitimate investors to exit.

Beneficial Owners

- Entity that enjoys the possession and/or benefits of ownership of a property even though its ownership (title) is in the name of another entity (called a 'nominee' or 'registered owner').
- Use of a nominee does not change the position regarding tax reporting and tax liability, and the beneficial-owner remains responsible. Also called actual owner.
- In case of a company those owns or controls more than 25% of a company's shares or voting rights, or who otherwise exercise control over the company or its management.

SOCIAL ISSUES

Rural Financial Inclusion Survey

In News: NABARD has released the All India Rural Financial Inclusion Survey (NAFIS).

About the NAFIS

- NAFIS is based on a sample of 40,327 rural households in 29 states of which 48 per cent are agriculture households (agri-HHs), 87 per cent are small and marginal farmer households.
- The survey combines the strengths of the NSSO's Situation Assessment Survey (SAS) and RBI's All India Debt and Investment Survey.
- Among other things, the survey estimates 2015-16 farmers' income levels.

Key findings of the survey

- **Doubling Farmers Income** - The vision of doubling farmer incomes by 2022-23 had no assessment of the base (2015-16) aggregate income levels, the estimates from NAFIS fill that gap.
- **Benchmark Income Levels** - The Dalwai Committee set up in 2016, to advice on the strategy to double farmers' incomes by 2022, did not have any benchmark income levels for 2015-16. So, the committee derived them by applying yearly growth rates of state-wise net-state-domestic-product (NSDP) to the NSSO estimates of 2012-13 income levels.
- In terms of sources of income, NAFIS offers interesting insights, particularly for the Dalwai Committee.
- **Agri and Non-Agri Incomes** - NAFIS estimates that in 2015-16, 35 per cent of farmers' income came from cultivation, 8 per cent from livestock, 50 per cent from wages and salaries and 7 per cent from non-farm sectors.
- The survey also estimates income of non-agri rural HH at Rs 7,269/month, more than half of which comes from working as wage labourers.
- **Insights based on Climate** - NAFIS data finds that working as labourers is a fall-back option for average farmers in drought years.
- Besides, the increasing pressure as a result of shrinking average holding size is presumably forcing farmers to work as labourers to meet their needs.

differs from other surveys

- NSSO used wider definition of rural areas; the NABARD survey includes areas that are bigger including Tier Three, Four and Five towns.
- NAFIS estimates that an average Indian farming household earnings based on household-level data.
- At Rs 5,000, it has a higher threshold level of income from agricultural and allied activities compared to the NSSO's threshold income level of Rs 3,000.
- This is likely to create an upward-bias in NAFIS's estimates of farmers' income.

- If NAFIS followed NSSO's definitions, the 2015-16 estimate of farmers' income would have been somewhat lower, and so would have been its growth rate (below 3.7 per cent).
- NAFIS data is very different from the assumptions of the Dalwai Committee, which states that by 2022-23, 69 to 80 per cent of farmers' incomes will accrue from farming and animal rearing.

way forward

- All three surveys of NAFIS, NSSO, and Dalwai Committee were conducted in years of deficit rainfall.
- This creates debates over the reliability of all these surveys, as it might fail to capture the true picture of agriculture and farmers.
- Going forward, it would be better if NSSO and NABARD ensure that their next surveys belong to normal rainfall years.
- To achieve dream of doubling farmers' incomes by 2022-23, the Dalwai Committee points out that farmers' real incomes need to grow at 10.4 per annum, that is, 2.8 times the growth rate achieved historically (3.7 per cent).
- This sounds like a challenge of raising country's GDP growth from 7.2 per cent to 20 per cent.
- Thus farmer income can possibly be done by 2030, unless the government undertakes drastic steps to augment farmers' incomes at faster pace.

Pradhan Mantri Awas Yojana

- PMAY aims at helping people below the poverty-line (BPL) in construction of dwelling units and upgradation of existing unserviceable kutchha houses through assistance in the form of full grant.
- Government will soon introduce provision of 'lock-in' period of five years for the houses purchased under PMAY.
- Those who have purchased houses will not be able to sell properties within 5 years of buying to avoid the misuse of the scheme.
- Beneficiaries are people belonging to SCs/STs, freed bonded labourers and non-SC/ST categories, widows or next-of-kin of defence personnel killed in action, ex-servicemen and retired members of the paramilitary forces, Disabled persons and Minorities.
- Under **PMAY – Gramin**, Government aims to construct 1 crore pucca (permanent) houses for the rural poor by 2019.
- Beneficiaries would be chosen based on the according to data taken from the Socio-Economic Caste Census of 2011.
- Under **PMAY – Urban**, Government envisions "Housing for All" by 2022.
- Beneficiaries – Urban poor who does not own a pucca house, Economically Weaker Section (EWS), Middle Income Groups (MIG) and Lower Income Groups (LIG).
- Credit Linked Subsidy Scheme is an interest subsidy available to a loan amounts up to 12 lakhs at the rate of 4% (6 to 9 lakhs) and 3% (9 to 12 lakhs).
- It is for purchase/construction/extension/improvement of house to cater EWS/LIG/MIG.

Indigenous Rationalism in India

Context:

- Hindu right-wing groups tend to portray rationalism as a western concept which is alien to Indian ethos and way of life.
- But a look at India's deep rooted philosophical tradition reveals that there has been a vibrant spirit of rationalist throughout.

Rationalist Tradition Shaped up in India

- It is believed that faith rules in India and that the number of Indians who didn't state their religion was only 3 million in the 2011 census.
- Nonetheless, this is a massive increase from the 2001 census where just about 700,000 had not declared a religion.

Ancient India:

- Rationalists and sceptics who held out for scientific ideas have been a part of the Indian tradition since at least the 6th century BC.
- Ajita Kesakambalin, a contemporary of the Buddha, was the earliest known teacher of complete materialism (stripped of any spiritual pursuit in life).
- The Charvakas Philosophical Tradition, is largely a product of his thinking that prioritised empiricism and scepticism over Vedic ritualism.
- The original texts of the Charvakas have not survived, but references to their rationalist tradition are found in Buddhist and Jain works.

- The Buddha himself cautioned against accepting “what has been acquired by repeated hearing”, and encouraged independent study and thinking.
- Even within the wider Brahminical tradition, shades of opinion prevailed between the Brahmanas and the Shramanas, and active debate prevailed.
- Notably, even in Chhandogya Upanishad, one UddalakaAruni speaks of the importance observing the surrounding rather than being superstitious.

Modern Times:

- In the early modern period in Bengal, Raja Ram Mohan Roy and the BrahmoSamaj led the charge against regressive tradition.
- The regions of present day Maharashtra has a long history of radical thought that challenged several ideas embedded in the caste hierarchies.
- It was here that BabasahebAmbedkar embraced Buddhism, and the Republican parties carry forward his legacy in their own ways.
- JyotibaPhule and SavitriPhule rejected caste and gender inequalities.
- The first recorded reservation in educational institutes for backward castes was in Maharashtra by ChhatrapatiShahuMaharaj of Kolhapur (1894-1922).
- Narayana Guru in Kerala and E V Ramasamy (Periyar) in Tamil Nadu were early advocates of progress, and their ideas impacted politics deeply.
- The Self-Respect movement in Tamil Nadu and the Leftist movement in Kerala and West Bengal made a strong case for rationalism and egalitarianism.

Way Forward

- Article 51A (H) of the Constitution of India gives a call “to develop the scientific temper, humanism and the spirit of inquiry and reform”.
- The leaders of the national movement hoped that the lofty ideals of the emerging Indian state would encourage a modern and progressive outlook.
- Rationalism would also help in undoing the feudal setup that has been in place since long and put us strongly on a path towards social and economic equality.
- In this context, it is important for the state to ensure that vested interests don't succeed in stifling the voices of progressivism.

INTERNATIONAL AFFAIRS

Turkish Economic Crisis

In News:

- The Turkish currency and debt crisis of 2018 is an ongoing financial and economic crisis in Turkey with international repercussions due to financial contagion.
- It is characterized by the Turkish Lira (TRY) plunging in value, high inflation, rising borrowing costs, and correspondingly rising loan defaults.

Causes

- The Turkish economy has been in overdrive, centred on a construction and consumption boom.
- President RecepTayyip Erdogan's increasing authoritarianism and his unorthodox ideas about interest rate policy.
- As the lira weekend investors are worried that Turkish companies that borrowed heavily to profit from a construction boom may struggle to repay loans in dollars and euros.
- The primary reason for the ongoing rout in the lira, though, is poor economic management by the government of President RecepTayyip Erdogan.
- The Turkish economy is overheating due to soaring inflation(16% in July), high foreign debt, and a very high current account deficit.
- Both the Turkish government and central bank are facing a serious loss of credibility.
- Unlike other economy, Turkish government has curtailed central bank's autonomy in deciding interest rates.
- Last month Erdogan claimed the exclusive power to appoint the bankers that set interest rates and put his son-in-law in charge of economic policy.
- After the US move, the lira has fallen by a fifth against the dollar during the past week alone.

Deteriorating US-Turkey Relation

- The U.S. Treasury had recently sanctioned two Turkish Ministers in response to Turkey's continuing detention of American pastor Andrew Brunson on spying and terror charges.
- Mr. Brunson was detained in 2016 as part of President RecepTayyip Erdogan's crackdown following an unsuccessful coup against him.
- Turkey is also holding an American NASA scientist, and three Turkish nationals working for US consulates in the country.

- As the negotiation collapse two countries were plunged into worst bilateral crisis since the US arms embargo on Turkey following its invasion of Cyprus in 1974.
- In response U.S has doubled the import tariffs on Turkish steel and aluminium.
- Erdogan has remained defiant and threatened to boycott all American-made electronic products.
- A strengthening dollar and higher interest rates in the U.S. have compounded the lira's troubles.
- Mr. Erdogan's tightening grip on institutions has further exacerbated the situation.

Turkey reaction

- To calm markets, Turkey's central bank, promised to provide the liquidity needed by banks.
- Turkish regulators also stepped in to curb foreign accounts from placing bets against the lira.
- According to IMF Turkey has the least adequate level of reserves among major emerging economies, which makes it particularly vulnerable to any speculative attacks.
- German Chancellor Angela Merkel urged Ankara to ensure the independence of its central bank as a way out of the crisis.

Wider financial ramifications

- The Indian rupee breached the 70 mark against the dollar for the first time, largely caused by the lira's fall.
- Analysts have been concerned that the turmoil could hit other (emerging) markets.
- European banks that own significant stakes in Turkish lenders are also at risk.
- For now it looks like the lira is recovering but, longer term, Turkey will likely raise the already high interest rates or it may even look to the IMF for financing.

Impact on rupee

- The rupee has been on the downside this year, having slipped 9% in 2018 as foreign investors sold \$6.8 million and \$5.15 billion in equity and debt markets respectively.
- Turkey's currency crisis has been the trigger for fresh selling across emerging markets, and the rupee has reacted sharply.
- The rupee has been among the hardest hit in Asia from the Turkey-led selloff in emerging assets that is already strained by higher oil prices.

SOARING INFLATION

Turkey's annual inflation was almost 16% in July, highest in 15 years.



By The New York Times, Source: FactSet

- Analysts expect trend in crude oil prices, and the trajectory of the greenback strengthening against other currencies to drive the outlook for the rupee in the short term.
- A falling rupee is very good news for exporters, as it turns exports more competitive.
- Majority of analysts don't see the Turkey situation cascading into a crisis of those proportions.
- If all emerging market currencies are depreciating, the rupee must weaken to protect export competitiveness.
- A weaker currency does, however, make imports costlier. High oil prices exert further pressure.
- The RBI has already hiked interest rates twice in its last two reviews to check inflationary pressures.
- In a recent report, the IMF had flagged global risks such as high oil prices and trade tensions among the factors weighing on India's growth outlook.
- Continual strengthening of the US dollar is putting pressure on the overall input costs and it will have an impact on prices within the white goods industry ahead of the festive season.

Crypto-Pegged Forex rate

- Venezuela has recently announced a single exchange rate based on its cryptocurrency.
- Petro is a cryptocurrency launched by the government earlier this year.
- The President has effectively devaluated the petrocurrency by 96 per cent.
- Exchange rates, salaries, pensions and prices are pegged to Petro.
- Now, one petro would equal \$60 and have the equivalent of 360 million bolivars (official currency of Venezuela).
- Since 2003 Venezuela has had strict currency controls, identified by economists as a major

cause of its economic crisis.

- It has led to hyperinflation and rendered the bolivar currency near worthless.
- The International Monetary Fund has predicted that inflation in Venezuela would hit 1 million percent this year.

Hopes for Reviving Indo-Pak Bilateral Trade

Context: The geopolitical situation in the subcontinent is conducive for newer trade ties to open up between Indian and Pakistan. There are immense benefits involved in this for both the countries.

Indo-Pak bilateral trade

- Bilateral trade has been volatile lately and it dropped to \$2.4 billion in 2017-18, from the high of \$2.7 billion in 2013-14.
- This was largely the fallout of drop in Indian exports, although India continues to enjoy a big trade surplus of \$1.4 billion with Pakistan.
- But these figures reflect only the direct trade between the two countries and indirect trade routed through a third country like UAE is massive.
- Some estimates hold that indirect trade could account to as much as 10 times the overall value traded directly – indicative of the potential of bilateral trade.
- To capitalise on this potential, tariff and non-tariff barriers are to be eased, and awareness and confidence building exercises need to be taken up.

Renewed hope

- Pakistan's PM-elect Imran Khan recently spoke of the need for harmonious relations with all neighbouring countries, including India.
- He also laid emphasis on better bilateral trade relations, given the immense potential and the peace dividend that comes with it.
- This was largely welcomed on both sides of the border and even China (which is usually an irritant to Indo-Pak ties) has received this positively.
- As politics and economics are not completely disconnected from each other, engagements at the political level is hoped to reinforce better economic ties.

Ways to enhance trade relations

- **Value chain** - In a highly integrated and interdependent global economy, regional value chains provide big opportunities for India and Pakistan.
- They could diversify their exports and imports and intensify their integration into the global economy for the greater benefit of all.
- Developing bilateral, product-specific, regional value chains in sectors such as “textile, clothing, sports goods and surgical equipment” hold the key.
- **Textiles** - while there is an existing bilateral engagement here, there is more potential for raw materials, grey fabric, blended fabric and stitched clothes.
- Indian hubs such as Surat (Gujarat) and Tiruppur (Tamil Nadu) can feed Pakistan's major production centre at Faisalabad and markets in Lahore.
- Similarly, there is a huge demand in India, for “salwar-kameez-dupatta” made of lawn fabric and wedding attire (shararas) produced in Pakistan.
- Given Pakistan's expertise in these areas, and the cost benefits attached with this trade, there is a significant market potential valued at \$2.3 billion here.
- **Sports Goods** - Pakistan's sports goods manufacturing sector is emerging as an original equipment manufacturer for major global brands.
- Sialkot is a global manufacturing hub for professional-level goods such as footballs, hockey sticks, leather goods, sports gloves etc...
- Notably, footballs manufactured here were used in the FIFA World Cup and India is already importing some of these equipment.
- However, manufacturers in Sialkot require quality raw materials or semi-finished products to produce these goods, which is a potential area for India.
- India can play a key role here in exporting raw material and semi-finished goods such as latex, rubber, and football bladders.
- This would work out to be more economical for Sialkot than its current major sourcing zones like Thailand and other Southeast Asian countries.
- In terms of finished goods, India made “lycra fibre sportswear” is in demand in Pakistan and this presents a market opportunity of about \$1.1 billion.
- **Health Care** - Pakistan's surgical instruments manufacturing industry is noted for its expertise, and it is a major supplier for U.S. and Europe.

- India, on the other hand, is a large medical market which imports these instruments from these developed countries at high rates.
- Direct import from Pakistan to India in this area has a market potential of \$804 million and would make these instruments cheaper domestically.
- Notably, in India, many dispensaries and clinics in Tier 2 and 3 cities, currently struggle to afford even re-useable surgical instruments.
- Further, India can also potentially increase the supply of stainless steel to Pakistan, a major raw material used in instrument manufacturing.

Imran's Foreign Policy Challenges

Context: Pakistan Tehreek-e-Insaf (PTI) chairman Imran Khan sworn-in as the 22nd Prime Minister of Pakistan.

- It is essential at this juncture to look at the various roles and challenges before him.

opportunities and challenges

- **Situation** - The new Pakistani PM Imran Khan is likely to be confronted by daunting challenges on assuming office.
- The country has a balance-of-payments crisis, the judiciary is in a hyper-activist mood, and water & climatic woes are being felt in some regions.
- The hard-won gains against a decade-long terrorist campaign have to be consolidated, which is threatening to resurge again.
- **Hope** - Many Pakistanis have traditionally blamed an incompetent and corrupt political class for most of these chronic problems.
- Having built his politics on an anti-corruption platform, Imran has vowed a transparent and accountable administration for Pakistan.
- Further, for forex and investments, he intends to bank heavily on the Pakistani Diaspora which is already a major source of remittances.
- Despite Mr. Khan allegedly rose to power with military support, he had already sent out a conciliatory call on global policy.
- **Challenges** - Improving ties with the U.S., Afghanistan and India, was a feat none of his predecessors has managed successfully.
- He spoke about improving relationships with the United States, pursuing dialogue with India and helping usher in peace in Afghanistan.
- While this is a positive start, overlooking the military to sustain goodwill with foreign powers (particularly India) will be a tough path ahead.
- If Pakistani new PM Imran Khan can persuade the military to enable him to better Pakistan's international ties, it would be a significant achievement.

Imran's political stand on Afghanistan

- **Personal** - Mr. Khan takes pride in his Pashtun ethnic identity with familial roots in Waziristan, on the troubled border between Afghanistan and Pakistan.
- Pashtuns constitute the majority in Afghanistan and the Afghani Taliban's rank and file are largely Pashtuns.
- In this context, Imran has a long history of towing a soft line on the Taliban and their apparent struggle to resist outsider rule in Afghanistan.
- This common ethnic bonding and tacit political support for Taliban has earned Imran the notorious moniker "Taliban Khan" in the liberal press.
- **Political** - Mr. Khan's "Tehreek-e-Insaf party" came to power nationally with its base in "Khyber Pakhtunkhwa Province" bordering Afghanistan.
- It is the province that suffered the most in the U.S. invasion of 2001 and the subsequent insurgency and counterinsurgency operations.
- Mr. Khan's rivals in the province — the religious right and the secular nationalist Pashtuns — will tear into him for failure in Afghanistan.
- **Diplomacy** - Considering all this, Imran is likely to argue for a sustained peace process in Afghanistan, which includes the Afghani Taliban.
- As both the U.S. and Afghan administration are currently open to direct talks with Taliban, it is only likely to make it easier for Imran.
- Nonetheless, balancing the expectations of Afghani government, the Taliban and the U.S. is likely to fall on the Pakistani PM, which would be a challenge.

Indo-Pak ties

- It is difficult for any Pakistani PM to improve ties with India as there are multiple vested interests.
- The Pak Army have the power to derail any progress in this regard.

- The Kashmir conflict remains an unsolvable case with highly polarised positions that both countries currently hold.
- Despite distrust ranging high, Pakistan's Army Gen. Bajwa had indicated that he was positively inclined to better ties with India.
- Further, he is largely been credited for the current lull in relentless firing across the "line of Control" in Kashmir.
- The back-channel negotiations between Pakistan and India that Gen. Bajwa is reported to have supported may signal a rare new detente.
- If the civilian Imran government and the powerful military are indeed on the same page as far as India is concerned, it will mark a promising start.

U.S.-Pak ties

- Mr. Khan also wants to improve Pakistan's relationship with the U.S., something the previous administrations haven't been successful with.
- But the military has resented this and even Mr. Khan's own nationalistic campaign against American policies might hinder any significant progress.
- **Economy** – Pakistani foreign exchange reserves are dwindling to very low levels and it desperately needs \$10 billion to save its economy.
- Hence, Pakistan is likely to turn to the International Monetary Fund (IMF) as it is the most viable option, where the influence of U.S. is crucial.
- Currently, U.S. officials have stated that they won't support any direct bailout package to save Pakistan from ill thought out Chinese investments and loans.
- In any case, Mr. Khan is unlikely to embrace austerity cuts that would be mandated by the IMF for borrowing due to various economic concerns.
- **Security** – U.S. and Pakistan remain at odds over how the Pakistani state deals with militants on multiple international and bilateral forums.
- Pakistan was recently placed on the gray list of the "Financial Action Task Force" (FATF) for failing to shut down UN-sanctioned terrorist.

Way Forward

- Mr. Khan has never held executive office before and will quickly realize that quick fixes and transparent government aren't easy to realize.
- While he won't be able to keep pace with public expectations, the military, which operates in the background, suffers no such constraints.
- If Mr. Khan can make the military a partner and enabler of his foreign policy ambitions he will pull off a significant feat.
- If that succeeds, it will help establish an unprecedented era of regional peace and stability, an outcome all will be positively inclined to.

India's Position on RCEP

Context:

- Negotiations on the 16-member "Regional Comprehensive Economic Partnership" (RCEP) bloc agreement have gone adrift.
- India should carefully weigh the pros and cons of the trade bloc.

India's current trade situation

- RCEP has a total of 16 members - China, ASEAN (10 countries), Australia, New Zealand, India, Japan and South Korea.
- India's trade engagement with these countries has not been favourable, when seen in terms of the trade deficit.
- NITI Aayog has pointed out that trade deficits with the RCEP member countries has risen from \$9 billion in 2004-05 to over \$80 billion now.
- India already has a "Free Trade Agreement" (FTA) with ASEAN, Japan and South Korea, which is largely the reason for the current unfair trade situation.
- Significantly, even without an FTA, trade deficit with China rose from \$0.6 billion to about \$63 billion in 2017-18, or 60% of India's overall trade deficit.
- This surge in Chinese imports — from electrical, electronics, plastics, chemicals, boilers etc..., has undeniably hurt Indian manufacturing.
- Notably, increase in imports from these countries hasn't helped to increase the local manufacturing sector or technologies.

ideal for India

- A government committed to 'Make in India' cannot be expected to embrace a deal that entails zero tariffs on over 70% of goods traded with China.

- Further, while FTAs in itself hasn't paid off sufficiently for India's industry, a higher level of openness with ASEAN is undesirable.
- While this is a protectionist view, it is also a product of both domestic and global circumstances, and hence not necessarily bad.
- Given the discontent over lack of jobs and agrarian distress, this isn't an opportune time to throw open sensitive sectors such as dairy products.
- Hence, India needs to bargain hard and play tough to secure a better deal from RCEP members or consider foregoing the deal altogether.

Way Forward

- The push for trade blocs has acquired a new urgency, with the Trump administration unleashing a trade war of sorts against China.
- In this context, India too has reversed its years-long policy of reducing tariffs by raising them across the board in the last Budget.
- Further, Malaysia's new PM has mooted an 'East Asian Economic Caucus' to offset China's economic might and trade surplus with the region.
- In this context, India should seriously consider the impact of any exit from RCEP on its links to global supply chains and take a rational decision.

DEFENCE/SECURITY AFFAIRS

Proposal for Integrated Theatre Commands

Context:

- Military reforms and creation of "Integrated Theatre Commands" (joining Army, Navy and Air force) is being debated widely now.
- In this context, there is a need for clear policy-driven directives that meet India's national security needs and challenges.

Proposed defence reforms

- "Naresh Chandra Committee report", prepared in the aftermath of Kargil War focused on a restructuring of "higher defence organization" as the first step.
- This was intended to improve synergy among different state departments - bureaucracy, military, research and development, intelligence etc.
- While little progress has been made to institutionalize these recommendations, the debate has now gone towards reforming the operational realm.
- Here, the proposal is to set up joint theatre commands where interoperability across services like "army, navy and air force" is being sought to be enhanced.
- Unfortunately, in this regard too there has been no progress, with services getting pitted against one another in a series of turf wars for operational control.

Integrated theatre command

- An integrated theatre command envisages a unified command of the three Services, under a single commander, for geographical theatres that are of security concern.
- The commander of such a force will be able to bring to bear all resources at his disposal — from the IAF, the Army and the Navy — with seamless efficacy.
- The integrated theatre commander will not be answerable to individual Services, and will be free to train, equip and exercise his command to make it a cohesive fighting force capable of achieving designated goals.
- The logistic resources required to support his operations will also be placed at the disposal of the theatre commander so that he does not have to look for anything when operations are ongoing.
- This is in contrast to the model of service-specific commands which India currently has, wherein the Army, Air Force and Navy all have their own commands all over the country.
- In case of war, each Service Chief is expected to control the operations of his Service through individual commands, while they operate jointly.

"jointness" Vs. integrated commands

- Jointness means that while the 3 Services progress and develop in their respective spheres with their independent identity, they function together and so coordinate their operations in war.
- Integrated commands, on the other hand, seek to merge individual service identities to achieve a composite and cohesive whole.
- It implies enmeshing the three Services together at different levels and placing them under one commander for execution of operational plans.

Present commands in India

- The Indian armed forces currently have 17 commands.
- There are 7 commands each of the Army [Northern, Eastern, Southern, Western, Central, South-western and Army Training Command (ARTRAC)].
- Air Force has [Western, Eastern, Southern, South-western, Central, Training and Maintenance].
- Navy has 3 commands [Western, Eastern and Southern].
- Each command is headed by a 4-star rank military officer.
- Interestingly, none of these 17 commands is co-located at the same station, nor are their areas of operational responsibility contiguous.
- In addition, there are 2 tri-service commands [Strategic Forces Command (SFC)] and Andaman and Nicobar Command (ANC)], which is headed by rotation by officers from the 3 Services.

Commands Coordination during War

- Coordination of operations is expected to be carried out at the level of Service Headquarters through the Chiefs of Staff Committee (COSC), which is headed by the senior-most Service Chief who is designated as Chairman, COSC.
- He is expected to simultaneously perform both the roles of Chief of his Service as well as the Chairman, COSC.
- The COSC generally functions on the principle of consensus, and this makes decision making on jointness very difficult.
- India has an integrated theatre command only in ANC.
- The other tri-service command, the SFC, looks after the delivery and operational control of the country's nuclear assets.
- It was created in 2003, but because it has no specific geographic responsibility and a designated role, it is not an integrated theatre command but an integrated functional command.
- There has been a demand for other integrated functional commands, such as the cyber, aerospace and Special Operations commands, but the government is yet to approve any.

Difference of Opinion

- The Army believes that it is time to move away from a "service specific approach to operations towards a system which avoids duplication, ensures optimum utilisation of available resources.
- Air force on the other hand feels that it doesn't have enough resources — fighter squadrons, mid-air refuellers and AWACS — to allocate them dedicatedly to different theatre commanders.
- It believes that India is not geographically large enough to be divided into different theatres, as resources from one theatre can easily be moved to another theatre.
- The Navy considers the current model of control by the Navy Headquarters ideally suited for its strategic role.
- There are also underlying fears about the smaller Services losing their autonomy and importance.

Concerns

- The proposal for standalone theatre commands like the pilot in Andaman & Nicobar Islands lacks clarity on the overall picture.
- The discussion of the kind of integration envisioned at the higher echelons (like the post of "Chief of Defence Staff") hasn't been having a clear direction.
- Whether theatre commands would reduce the powers of chiefs of the various services over their resources is also not known currently.
- The Indian Air force has also expressed operational problems in being delegated under theatre commands, due to shortage of resources.
- Notably, with a sanctioned strength of 45 squadrons, the Air force currently operates with just about 32, due to shortage of fighter jets.
- Further, during all previous military initiatives, the Air force under the current command structure has delivered clear and appreciable results.

way forward

- The evolving nature of the warfare has changed the way combat is carried out and the focus on integrated commands might actually be redundant.
- Further, it's only for far off offensive missions that theatre commands are more suited to and home defence is largely done through conventional commands.

- With technological advancements in weaponry, the focus should be more on upending the defense arsenal and its operability.
- The future battle field is lesser about mobilizing large armies and more about better surveillance, and cyber capabilities to pre-empt attacks.
- In this context, reducing the tooth-to-tail ratio (combatants-to-support staff) and improving the potency of the tail operators is vital for the military.

Advanced Medium Combat Aircraft

- It is India's next indigenous fighter and expected to make its first flight by 2032.
- It is built under India's only **fifth generation aircraft** programme.
- The aircraft will feature geometric stealth which is different from material stealth feature.
- In material stealth, radar-absorbing materials are used to **absorb** the radio waves thus reducing the radar footprint.
- Whereas, in geometric stealth, the aircraft is designed at such angles to **deflect** away maximum radar waves to minimise radar cross section.
- Thus, the fighter will have low radar cross section, making it difficult for the enemy to spot it.

Smart Anti-Airfield Weapon

- It is an indigenously developed light weight glide bomb, capable of targeting large enemy infrastructure, like airfields.
- It was recently flight tested from Indian Air Force's Jaguar aircraft successfully.
- It is an accurate bomb and is termed a precision-guided munition (PGM).
- It has "Inertial navigation system" which guides it precisely to its target, typically an enemy airfield up to 100 km away.
- This precisely guided one bomb is more economical than traditional free fall bombs which are less accurate.
- It has another advantage that it can release the bomb at a safer distance to enemy airfield and return without exposing itself to enemy anti-aircraft defences.

HELINA

- HELINA is an acronym for "Helicopter Launched Nag" missile.
- Nag is a third generation Anti-Tank guided missile indigenously developed under "**Integrated Guided Missile Development Programme (IGMDP)**" of DRDO.
- Anti-Tank Guided Missiles are primarily designed to hit and destroy heavily armored military vehicles.
- Helina is the helicopter launch variant of Nag that can be fired from Dhruv advanced light helicopter and HAL Rudra attack helicopter.
- It is a heavier and longer-range version of the vehicle mounted Nag missile with a 7-km range.
- Typically, a land version of Nag missile has a range of only 4 km.
- The missile is guided by "infrared imaging seeker" that homes in on the target's heat signature.
- IGMDP involves the development of Agni, Akash, Trishul, Prithvi and Nag missiles.

ENVIRONMENTAL AFFAIRS

Concerns in Biofuel Plans

Context: The Union Government's plans and proposals on the production and use of biofuel have given rise to some concerns.

Biofuel,

- Biofuel, any fuel that is derived from biomass—that is, plant or algae material or animal waste.
- Since such feedstock material can be replenished readily, biofuel is considered to be a source of renewable energy, unlike fossil fuels such as petroleum, coal, and natural gas.
- Biofuel is commonly advocated as a cost-effective and environmentally benign alternative to petroleum
- Many critics express concerns about the scope of the expansion of certain biofuels because of the economic and environmental costs associated with the refining process.

Recent moves

- **Production** - The government has an ambitious plan to triple the production of biofuels in four years.
- This is a positive move to reduce the excessive dependence on imports for meeting the energy needs.

- **Policy** - The recently-approved National Biofuel Policy 2018 pushes for a new biofuel strategy.
- It is aimed at raising ethanol doping of petrol to 10% by 2022 and 20% by 2030.
- This will be a rise from the present national average of around 2%.
- Also, biofuel blending of diesel, which is almost negligible now, is proposed to be stepped up to 5% by 2030.
- This is estimated to help save Rs 120 billion in import bill.
- The intended objective is to create Rs 1 trillion biofuel economy.
- **Refineries** - Oil marketing companies are already in the process of setting up 12 biofuel refineries.
- These units would deploy second-generation technology.
- It can make biofuels from even solid municipal and industrial trash.
- It also includes problematic agricultural wastes like paddy straw and crop stubbles.
- Notably, these are generally burnt in the fields itself, causing pollution.
- Government is offering subsidised credit, viability gap funding and relatively higher purchase prices for ethanol produced by these plants.
- The GST has been trimmed from 18% to 5% on ethanol and from 18% to 12% on biodiesel.
- **Sugar industry** - The sugar industry has already been permitted to produce ethanol.
- The mills are incentivised to set up biofuel refineries with liberal government assistance.
- The government has also fixed a higher procurement price for the ethanol drawn directly from cane juice.
- This is more than the price for that manufactured from the byproducts like molasses.

Concerns

- **Production** - It is proposed to use various kinds of farm produce and not just agricultural wastes for this purpose.
- This can potentially distort the pattern of agricultural output in favour of energy crops.
- This is a trend that even the land-rich countries are finding hard to sustain.
- **Ethanol** - The liberties granted to ethanol manufacturers remain contentious.
- They are allowed to choose their feedstock from a range of crops and other farm materials.
- These include:
 - sugarcane juice
 - sugar containing crops such as beetroot and sweet sorghum
 - starchy crops such as maize and cassava
 - damaged food grains such as wheat, broken rice and potato
- Evidently, many of these are part of the human or animal food chains.
- **Sugar industry** - Ethanol drawn directly from cane juice could amount to a complete bypassing of sugar production.
- Also, farmers would be encouraged to produce more of this water-intensive crop.
- This could be at the cost of other crops that can be grown on the prime irrigated lands.
- Despite farmers' benefits, such moves may pose problems in the wider economic interests.
- **Bio-diesel** - For biodiesel, the new plan envisages utilisation of non-edible oilseeds and short-gestation oil-bearing crops.
- This disregards the fact these oils are used in the pharmaceutical, cosmetic and other industries.
- Given these, the well-intentioned biofuel plan does need some judicious alterations to address the concerns.

Generations of Biofuels

- **First Generation biofuels** are produced directly from food crops by abstracting the oils for use in biodiesel or producing bioethanol through fermentation.
- **Second Generation biofuels:** They are produced from non-food crops such as wood, organic waste, food crop waste and specific biomass crops.
- Cellulosic ethanol technology fits in here, as do non-food crop technologies such as **jatropha**-based biofuels.
- **Third Generation of biofuels** is based on improvements in the production of biomass. It takes advantage of specially engineered energy crops such as algae as its energy source.
- The algae are cultured to act as a low-cost, high-energy and entirely renewable feedstock.
- It is predicted that algae will have the potential to produce more energy per acre than conventional crops.
- **Fourth Generation Biofuels** are aimed at not only producing sustainable energy but also a way of capturing and storing CO₂.

Man-Made Factors of Kerala Floods

Context:The immediate cause of devastating floods in Kerala and other parts of India has contribution of man-made factors.

Background

- **Kerala** - The state is being flooded due to sustained and intense downpour of rains.
- Most reservoirs got filled up earlier than usual this year due to excessive rain.
- Several parts of neighbouring Tamil Nadu and Andhra Pradesh are either reeling from floods or facing the threat.
- This aside, seven other states Uttar Pradesh, Maharashtra, West Bengal, Gujarat, Assam, Nagaland and Odisha have also witnessed devastation due to floods, landslides and other rain-related incidents.

Natural causes

- Climate change is playing a significant role in aggravating the flooding menace.
- The projections made by a global panel on climate change indicate that the overall rainfall in the Indian subcontinent is likely to increase by 10 per cent in terms of both quantity and intensity by 2050.
- Some evidence of it is already noticeable by way of increased frequency of extreme weather events, such as the unprecedented rainfall and cloudbursts in Kerala this year and in Uttarakhand, Jammu and Kashmir, and Maharashtra earlier.
- With the unabated degradation of river catchments and heavy siltation of water bodies, the incidence of such episodes is set to exacerbate.

man -made factors

- Kerala witnessed widespread deforestation, rampant construction and indiscriminate quarrying in past 100 years which has triggered landslides and also obstructed water channels which is worsening the deluge.
- Almost all the 80-odd dams of the regions adjoining Kerala are brimming over.
- The governments of these states are unable to evolve a common plan for releasing the excess water.
- This lack of coordination in water releases from dams in Kerala and the adjoining states has further aggravated the situation, and even hampering the rescue and relief operations.
- The state government also seems guilty of not taking some of the routine risk mitigation measures enumerated in the National Disaster Management Policy.

Way Forward

- A flood code having ready-to-use contingency plans to cope with inundation, on the lines of the existing drought code, is badly needed for all flood-prone areas.
- Floods, indeed, seem to have become an integral feature of the monsoon season, thus proper flood-proofing effort need to be the part of government's protocol.
- While in other countries dams and barrages are built to ward off floods, in India, they tend to serve the opposite purpose because of unprofessional management of the impounded waters.
- This has necessitated substantial enhancement in the efficiency and reliability of the weather and flood-forecasting systems to forewarn civic administrations of impending disasters for timely relief action.

BIO/ HEALTH ISSUES

WHO's Report on Swachh Bharat Mission

In News:A recent report by the World Health Organization (WHO) has praised India's Swachh Bharat Mission.

Key highlights

- The WHO statement was based on the initial results of a WHO modelling study on the health impact of the Swachh Bharat Mission Gramin (SBM-G).
- WHO lauds India's commitment to accelerated coverage of safe sanitation services.
- It said India could avert 3 lakh deaths provided there is 100% implementation of Swachh Bharat Mission.
- This is in reference to deaths due to diarrhoeal disease and protein-energy malnutrition (PEM).
- The WHO analysed India's accelerated coverage of safe sanitation services by accumulative Disability Adjusted Life Years (DALYs).
- DALYs is the sum of the years of life lost due to premature mortality and years lost due to disability or ill-health.

- According to the calculations, if all sanitation services are used, the initiative could result in over 14 million more years of healthy life in the period measured.
- However, most of the WHO statement talks about the benefits of the sanitation programme in the future tense.

actual status of SBM

- According to official sources the household latrine coverage figure for 2018-19 stands at around 90% across the country.
- In Odisha it is nearly 60%, in Bihar 63%, in Goa 76%, in Tripura 77%, and in Jharkhand 85%.
- On the other hand, states like Andhra Pradesh, Chhattisgarh and Arunachal Pradesh have 100% coverage.
- Household sanitation coverage has increased from an estimated 2% per year before Swachh Bharat to more than 13% annually between 2016 and 2018.

positive health impacts

- Swachh Bharat Mission led to additional health gains through changes -
 - in personal hygiene (e.g., handwashing behaviour)
 - in consumption of safe drinking water (e.g., reduced risk of faecal contamination of drinking water)
- There is evidence that improvements in drinking water supply, sanitation services and personal hygiene have positive health impacts.
- They include
 - improved nutritional status and its benefits
 - reduced incidence of infectious diseases such as different neglected tropical diseases and acute respiratory infections
 - reductions in diarrhoeal disease

World Bank Report on Stunting

In News: World Bank recently released a report on the prevalence and effects of stunting.

Stunting

- It is defined as the percentage of children, aged 0 to 59 months, whose height for age is below from the median of the WHO Child Growth Standards.
- Minus two standard deviations is considered as moderate and severe stunting and minus three standard deviations considered as severe stunting.
- Stunting is associated with an underdeveloped brain, diminished mental ability and learning capacity, poor school performance, reduced earnings and increased risks of nutrition-related chronic diseases, such as diabetes, hypertension, and obesity in future.

Indian scenario

- In India, 38 per cent of children younger than five years of age are stunted.
- Stunting reflects cumulative effects of intergenerational poverty, poor maternal and early childhood nutrition, and repeated episodes of illness in childhood.
- Stunting is the most prevalent form of under-nutrition, yet it goes largely unrecognized.
- The levels of stunting in children are above the national average in Uttar Pradesh, Bihar, Chhattisgarh, Gujarat, Meghalaya, Madhya Pradesh, and Jharkhand.
- Prevalence of wasting is highest in Madhya Pradesh followed by Jharkhand, Meghalaya and Bihar.
- The lifelong effects of stunting are said to result in at least 10 per cent decrease in future income over the lifetime of stunted adults.

Key highlights of the Report

- A child is stunted if the height-for-age ratio is not proportionate.
- **Effects** - Children with stunted growth are more prone to enduring adverse outcomes later in life.
- They suffer from impaired brain development.
- This leads to lower cognitive and socio-emotional skills, and lower levels of educational attainment.
- **India** - The World Bank analysed 140 countries for workers who were stunted as children.
- Of these, only Afghanistan (67%) and Bangladesh (73%) surpassed India's proportion (66%).
- Around 66% of the working population in India are earning 13% less.
- This is specifically because of lack of skills due to stunting in childhood.
- This is one of the highest proportions worldwide in such reductions in per capita income.
- **Others** - The average reduction for South Asia was 10% and North America 2%.
- Middle East and North Africa do better, with a reduction of 4%.
- This is better compared to Europe and Central Asia with a reduction of 5%.

- The economic impact of stunting was not limited to Asia and Africa.
- Stunting has affected almost all continents in varying amounts.
- But Indians lost more income than people, on average, from Sub-Saharan African countries.
- Notably, countries poorer than India have handled stunting better.
- E.g. Senegal, with a per capita GDP of half as that of India's, was able to reduce stunting in its children by half over 19 years to 2012.
- Peru, too, demonstrated a remarkable decline in its childhood stunting characteristics.
- This was largely due to its nutrition, health and sanitation interventions.
- **Returns** - The World Bank report calculated that the returns on a national nutrition package outweigh the costs.
- This is in reference to interventions focussed mainly on maternal and neonatal health.
- But given the time lag between childhood and joining workforce, the effects begin to show only 15 years after implementation.
- After the initial 15 years, the cost remains static and the benefits continue to increase as more of the workforce begins to benefit.
- The average rate of return predicted for the programme was 17%.
- But for India the returns were forecast at 23%.

Current scenario

- The percentage of childhood stunting in India's current working-age population does not reflect the percentage of children currently stunted.
- This is given the gap between childhood and joining the workforce.
- Notably, the current number of stunted under-five children in India has reduced drastically.
- Over 26 years to 2014, the percentage of stunted Indian under-five children has reduced from around 62% to 38%.

Causes for India's state

- Stunting is affected by a variety of socio-economic determinants.
- More than the economic development state, it reflects the treatment of women and children.
- The related causes for stunting lie in social inequity with women's status and health, household wealth, access to services, etc.
- India clearly has inadequacies in women's well-being and efforts to reduce poverty.
- The two most influential deciding factors are women's BMI and women's education.
- These factors explained the difference in child stunting between highly sensitive and less sensitive districts.

Status of under nutrition in India

- According to the Global Nutrition Report 2016 and the Global Hunger Index (GHI) 2017, India ranks at 100 out of 119 countries with a low overall score of 31.4.
- Among children less than 5 years, wasting (low weight for height), continues to be 21% in the 2017 index, it was 20% in 1992.
- There has been a reduction in stunting (height for age) from 61.9% in 1992 to 38.4% in 2017.
- Mortality among children less than 5 years old has declined to around 5% from 11% during the same period.
- However, 25% of India's children less than 5 years old are still malnourished.
- Added to this is the fact that 190.7 million people in India sleep hungry every night.
- Over half of adolescent girls and women are anaemic.

measures taken in this regard

- Integrated Child Development Services (ICDS) has a network of 1.4 million Anganwadi Centres.
- It thus reaches almost 100 million beneficiaries who include pregnant and nursing mothers and children up to 6 years.
- Mid-day meals (MDM) reach almost 120 million children in schools.
- Public Distribution System (PDS) reaches over 800 million people under the National Food Security Act.
- National Nutrition Strategy (NNS) - Union government has announced this flagship program of the Ministry of Women and Child Development.
- This will be anchored through the National Nutrition Mission (NNM) and has set very ambitious targets for 2022.
- The PoshanAbhiyaan has also specified three-year targets to reduce stunting, under-nutrition and low birth weight by 2% each year, and to reduce anaemia by 3% each year.
- Additionally, NITI Aayog has worked on a National Nutrition Strategy (NNS).

- It isolated the 100 most backward districts for stunting and prioritised those for interventions.

Concerns with government schemes

- Both the NNS and the NNM have recognised the criticality of working collaboratively across Ministries.
- Yet both are silent on the constructive role of private sector, development agencies and civil society.
- There are no initiatives to exploring new models to address the structural and systemic issues on a priority basis.
- In the absence of coordination with industry to create an effective supply chain, this proposed intervention will be another missed opportunity.

Fall Armyworm

- It is an invasive agricultural pest discovered in the Maize field in the State of Telangana.
- It was first reported in Karnataka by the Indian Council for Agricultural Research.
- It is a major maize pest in North America and it arrived in Africa in 2016.
- It has spread to Central and Western Africa in 2016 and has proved very hard to control.
- It prefers Maize, but can feed on 80 species of plants, including rice, sorghum, millet, sugarcane and cotton.
- It can be controlled with insecticides, through natural enemies or by inter-cropping.

India's First Penguin

- India's first penguin was born on Independence day in Byculla zoo in Mumbai.
- It belongs to the category of Humbolt Penguin, named after cold water current in the coastal areas of Chile and Peru in South America.
- The species is listed as "Vulnerable" in IUCN list of threatened species.
- In 2016, 8 humbolt penguins were imported to Mumbai from South Korea for captive breeding.

Ayushman Bharat

In News:

- In Independence Day speech, Prime Minister Narendra Modi said that his government will launch the ambitious Ayushman Bharat healthcare scheme on September 25, 2018.
- Modi's Ayushman Bharat scheme, touted as the world's largest healthcare scheme, aims to provide coverage of Rs. five lakh per family annually.
- The Ayushman program has been designed to address the current deficiencies in the public sector healthcare industry, infrastructure, including lack of funds and resources.

About The Scheme

- Ayushman Bharat - National Health Protection Mission will subsume the on-going centrally sponsored schemes - Rashtriya Swasthya Bima Yojana (RSBY) and the Senior Citizen Health Insurance Scheme (SCHIS).
- The fundamental objective is to strengthen secondary, primary and tertiary healthcare system in India and it also focuses on offering financial protection during an emergency situation for all needy families.
- Beneficiaries included are the poor, deprived rural families and identified occupational category of urban workers' families, 8.03 crore in rural and 2.33 crore in urban areas, as per the latest Socio Economic Caste Census (SECC) data.

MAJOR INITIATIVES

1. It will have a defined benefit cover of Rs. 5 lakh per family per year. Benefits of the scheme are portable across the country.
2. a beneficiary covered under the scheme will be allowed to take cashless benefits from any public/private empanelled hospitals across the country.
3. It will be an entitlement based scheme with entitlement decided on the basis of deprivation criteria in the SECC database.
4. To control costs, the payments for treatment will be done on package rate (to be defined by the Government in advance) basis.
5. One of the core principles of the mission is to promote co-operative federalism and flexibility to states.
6. For centre- state coordination there will be a Ayushman Bharat National Health Protection Mission Council (AB-NHPMC) at apex level Chaired by Union Health and Family Welfare Minister.
7. States would need to have State Health Agency (SHA) to implement the scheme.
8. In partnership with NITI Aayog, an IT platform will be made operational which will entail a paperless, cashless transaction.

Implementation Strategy

- At the national level to manage, an Ayushman Bharat National Health Protection Mission Agency (AB-NHPMA) would be put in place.
- States/ UTs would be advised to implement the scheme by a dedicated entity called State Health Agency (SHA).
- They can either use an existing Trust/ Society/ Not for Profit Company/ State Nodal Agency (SNA) or set up a new entity to implement the scheme.
- States/ UTs can decide to implement the scheme through an insurance company or directly through the Trust/ Society or use an integrated model.

Expenditure Involved

- The expenditure incurred in premium payment will be shared between Central and State Governments in specified ratio as per Ministry of Finance guidelines in vogue.
- In States/ UTs where Mission will be implemented through insurance companies the total expenditure will depend on actual market determined premium paid.
- In States/ UTs where the scheme will be implemented in Trust/ Society mode, the central share of funds will be provided in the pre-determined ratio.

Impact of the Scheme

- Ayushman Bharat - National Health Protection Mission will have major impact on reduction of Out of Pocket (OOP) expenditure on ground of:
 1. Increased benefit cover to nearly 40% of the population, (the poorest & the vulnerable)
 2. Covering almost all secondary and many tertiary hospitalizations. (except a negative list)
 3. Coverage of 5 lakh for each family, (no restriction of family size)

Analysis of the Scheme

- If the government is going to route the payments through the insurance companies, these companies will be making nearly 30 per cent of the money.
- For instance, if the government is paying Rs 100, then Rs 30 will go to these insurance companies. Only Rs 70 will be available for expenditure that will be incurred by the hospitals.
- Nobody will work to make losses and quality may be compromised which needs review on this aspect.
- The ultimate things are the hospitals (that will be empanelled) that are likely to offer these services to the public.
- If they are not comfortable doing this the scheme, (Ayushman Bharat) is going to be paralysed.
- Without proper scientific data it makes no sense to arrive at the cost of a medical service. And the package (cost) that the government has arrived at is not scientific.
- Scheme is meant to cover the lower socio-economic group of people, which is about 45 per cent of the Indian population.
- All the medium hospitals in India concentrate on this group of people. So, if the government is going to undercut the cost of procedures, then it will be very difficult for these medium-sized hospitals to manage their operations and survive.
- The big corporate hospitals, for instance, could even manage by cross-subsidising patients who pay under the NHPS, but the smaller and medium-sized hospitals will be wiped out under the cost burden.

Way Forward

- The government must ensure that the service providers (hospitals) are made to feel comfortable by mandating a comfortable package rate.
- The scheme will be very successful only if empanelled hospitals are comfortable delivering the goods under the NHPS.
- The government should take the 'trust' model -- to route payments to the hospitals through a government trust -- instead of the insurance companies.

TECHNOLOGICAL AFFAIRS

India's Manned Mission to Space

In News: Indian Space Research Organisation (ISRO) has announced the definitive timeline for Gaganyaan mission.

Gaganyaan

- ISRO has announced its first manned mission which is set to be a reality by 2022.
- By which an Indian astronaut, be it a man or a woman, will go on a space odyssey by 2022 on board 'Gaganyaan'.

- ISRO has roped in Indian Air Force pilots to identify the first set of astronauts for a human space flight.
- Earlier mission of ISRO are
 1. *Chandrayaan* - India's lunar probe
 2. *Mangalyaan* - It is Mars Orbiter Mission (MOM), a space probe orbiting Mars.

Works in progress

Launch vehicle

- The launch vehicle for this mission is planned to carry heavy payloads into space.
- The spacecraft carrying human beings, called crew module, is likely to weigh in excess of 5 to 6 tonnes.
- For this purpose, GSLV Mk-III (or) Launch Vehicle Mark-3 (LVM-3) is being developed.
- This comes with cryogenic engine, with capabilities to deliver much heavier payloads much deeper into space.

Re-entry & Recovery tech

- ISRO has already tested the GSLV Mk-III with experimental crew module.
- It came back to Earth after being taken to an altitude of 126 km into space.
- This is known as Crew module Atmospheric Re-entry Experiment (CARE).

Crew Escape System (CES)

- ISRO recently tested a crew escape system (CES), which is a capsule that ejects from a rocket if it explodes on the launch pad.
- The CES is a series of technology which ISRO is developing for an eventual mission to carry astronauts to space.
- It is a crucial emergency escape measure designed to quickly pull the spacecraft that houses the astronauts to a safe distance from the launch vehicle in the event of a rocket explosion.
- ISRO has so far built a capsule that can re-enter from space, space suits, food for astronauts in collaboration with Defence Research and Development Organisation.

Life support

- The Environmental Control & Life Support System (ECLSS) is meant for humans inside to live comfortably.
- It ensures that conditions inside the crew module are suitable for living.
- The ECLSS -
 - maintains a steady cabin pressure and air composition
 - removes carbon dioxide and other harmful gases
 - controls temperature and humidity
 - manages parameters like fire detection and suppression, emergency support
 - takes care of food and water management

Astronaut training

- ISRO still plans to set up a permanent facility like a foreign facility, to train candidates for the first manned mission.
- Candidates would be trained for at least two years in living in zero gravity.
- It would also include dealing with a variety of unexpected experiences of living in space.

Challenges

- A manned space mission is very different from all other missions that ISRO has so far completed.
- In terms of complexity and ambition, even the missions to the Moon (*Chandrayaan*) and Mars (*Mangalyaan*) are nowhere in comparison.
- For a manned mission, the key distinguishing capabilities that ISRO has had to develop include
 - the ability to bring the spacecraft back to Earth after flight
 - building a spacecraft in which astronauts can live in Earth-like conditions in space
- Over the years, ISRO has successfully tested many of the technologies that are required.
- However, many other challenging ones are still to be developed and tested.

Sequencing of Sugarcane Genome

In News: A global team of researchers recently announced the sequencing of sugarcane genome. **significant**

- Sugarcane produces 80% of the world's sugar.
- It has also emerged as the primary crop for biofuel production.
- The sugarcane genome is nearly 20 times bigger than that of rice.
- Its complex genetic makeup has so far posed challenges to classical sequencing approaches.

- So significantly, sugarcane is one of the last crop plants to be genome-mapped.
- In comparison, the rice genome was cracked nearly 14 years ago.

Process

- Each of the 10 basic sugarcane chromosomes is duplicated in 8-10 copies with a total of more than 100 chromosomes.
- In comparison, the human genome has just 23 pairs of chromosomes.
- An earlier discovery that the genomic structures of sugarcane and sorghum being very similar helped here.
- Sugarcane and sorghum share large fragments with numerous genes in the same order.
- So scientists used the sorghum genome (which was sequenced years ago) as a template.
- The template was used to assemble and select the sugarcane chromosome fragments to sequence.

benefits

- Until now, breeding programmes were restricted to hybridisation and was followed by cumbersome field assessments.
- With the recent finding, sugarcane breeding will be able to enter the age of molecular biology.
- The finding will help scientists create a reference genome of sugarcane.
- The reference sequence can help in effectively analysing and comparing variations between various sugarcane varieties.
- It can also help develop new molecular screening techniques to supplement conventional breeding methods.
- Characteristics that contribute to improving a variety rely on the combination of several genes inherited.
- The traits may include yield, drought resistance and ability to withstand pest attacks.
- So if scientists can identify genes associated with these agronomic traits, they can easily be transferred to commercial varieties.
- This in turn could shorten the time required for getting a new variety to the field.
- **Varieties** - Theoretically, the maximum sucrose content that sugarcane can have is around 25%.
- This could be breached with the knowledge of molecular mechanisms involved in sucrose storage in the plant.
- Very significantly, sugarcane is a known water-consuming crop.
- Genetic sequences linked to enduring water stress can help develop varieties that require lesser water.

Way Forward

- The cracking of the sugarcane genome can transform the sector.
- But India needs to clarify its stance on GM foods as India does not currently allow GM food crops.
- This is essential to reap the benefit of the advances in sugar genome sequencing.
- Notably, Brazil (with largest area in the world under sugarcane) recently allowed commercial cultivation of the world's first GM sugarcane.

Wheat Genome

- A team of international researchers, including 18 from India decoded the wheat genome.
- It is considered as a breakthrough which will help to identify genes controlling complex agronomic traits such as yield, grain quality, resistance to diseases and pests, as well as tolerance to drought, heat, water logging and salinity.
- It would accelerate the breeding of climate-resilient wheat varieties to help address global food security.

LIGO-India Project

In News: The Environment Ministry has allowed scientists to test the suitability of land in Maharashtra's Hingoli district to host the LIGO-India project.

- Laser Interferometer Gravitational-wave Observatory (LIGO) is the ambitious project by U.S to detect the faintest ripples from cosmic explosions millions of light years away.
- The LIGO project operates three gravitational-wave (GW) detectors - two at Hanford in the State of Washington, and one is at Livingston in Louisiana.
- The LIGO-India project is an international collaboration between the LIGO Laboratory and three Indian lead institutions.
- The project is piloted by the Department of Atomic Energy (DAE) and Department of Science and Technology (DST).

- It is expected to be ready by 2025.
- The project involves constructing a network of L-shaped arms, each four kilometres long, which can detect gravitational waves.
- Indian scientists would provide the infrastructure to install the detector and it would be operated jointly by LIGO-India and the LIGO-Lab.

Gravitational Waves

- A gravitational wave (GW) is a concept, predicted by Einstein through his theory of general relativity.
- General relativity states that mass distorts both space and time.
- When an object accelerates, it creates ripples in space-time, just like a boat causes ripples in a pond. These space-time ripples are gravitational waves.
- They are caused by cataclysmic events that result in high-energy explosions, such as collision of black holes or neutron stars.
- They are extremely weak and so are very difficult to detect.
- Strength of the wave depends on the mass of the object and require extremely sensitive detectors to sense them.
- Missions like LIGO (Laser Interferometer Gravitational-wave Observatory) helps to spot gravitation waves, detecting small changes in the distances between objects at set distances.

SUBSEA

- Systematic Underwater Biogeochemical Science and Exploration Analog (SUBSEA) research program was proposed by NASA in the year 2017.
- It brings together the space and ocean exploration by simulating a Space mission at sea.
- The design of SUBSEA is similar to joint human-robotic space missions in which astronauts give directions to robots in surface based on the commands from Earth based science team.
- Under this programme, under water remotely based vehicles or robots are operated by ship-based human operators, who inturn receive guidance from remote science team.
- The target of SUBSEA 2018 is Loihi seamount, an underwater volcano off Hawaii Island.
- The submarine will analyse the warm springs emanating from Loihi.
- The purpose behind this is to predict conditions in other ocean worlds such as moons of Saturn (Enceladus) and Jupiter (Europa).
- It will also help mission design teams to develop methods for doing operations in deep space environments such as Mars.

4D Printing

- Scientists have successfully developed the world's first 4D printing for ceramics.
- It can be used to create complex, shape-changing objects.
- 4D printing is conventional 3D printing combined with the additional element of **time as the 4th dimension.**
- The 4D printed objects can re-shape or self-assemble themselves over time with external stimuli, such as mechanical force, temperature, or a magnetic field.
- The existing 3D-printed ceramic productions are usually difficult to deform and hinder the production of ceramics with complex shapes.
- A novel ceramic ink was developed to stretch the ceramic products beyond its initial length and allow complex shapes with heat treatment.

MISCELLANEOUS

Comparison of Constitutional Aspects - India and Pakistan

Context:

- With new Prime-Ministership of Imran Khan, a noteworthy transformation is expected in the nation State of Pakistan.
- In this backdrop, a comparison between India and Pakistan in key government and law aspects is attempted here.

Constitution-related differences

- **Preamble** - The preamble of the Islamic Republic of Pakistan begins with an invocation of "Almighty Allah".
- It mentions the "Founder of Pakistan, Quaid-i-Azam Mohammad Ali Jinnah".
- It promises "adequate provision" to "safeguard the legitimate interests of minorities and backward and depressed classes".

- It also promises to protect “the independence of the judiciary”.
- The Constituent Assembly of India had rejected any reference to God or to the Father of the Nation, Mahatma Gandhi.
- The preamble to the Indian Constitution is more compact.
- It encapsulates, but doesn't explicitly mention, the rights of minorities and independence of the judiciary.
- **Rights** - Pakistan's constitution recognises the right to privacy.
- This was recently declared a fundamental right by the Supreme Court in India.
- Pakistan constitution also recognises the right to education for children from ages 5 to 16.
- In India, the Right of Children to Free and Compulsory Education Act, 2009 guarantees education to children between ages 6 and 14.
- Pakistan's constitution guarantees the right to information and declares human dignity as inviolable.
- India passed The Right to Information Act in 2005, in this regard.
- **Freedom** - Unlike the Indian constitution, Pakistan's specifically mentions the freedom of the press.
- But this freedom is subject to the “glory of Islam”.
- Pakistan has a regressive and widely abused blasphemy law that carries mandatory death penalty.
- Also, its freedom of religion is conditional, and unlike in India, available only to citizens.

Judiciary

- **Appointments** - Pakistan's government has no role in the appointment of the country's Chief Justice.
- The President appoints the senior most Judge of the Supreme Court as the Chief Justice of Pakistan.
- India's Supreme Court in 2015 struck down the National Judicial Appointments Commission.
- It was intended to decide appointments and transfers of judges of the higher judiciary.
- But Pakistan has had its own version of the commission since 2010.
- There are six judges, a senior advocate, and two government nominees on it.
- Its recommendations go to an eight-member committee of Parliament which confirms nominations by majority vote.
- **Misconduct** - Pakistan's constitution provides for a supreme judicial council to deal with alleged judicial misconduct.
- It consists of the Chief Justice, two seniormost judges of the Supreme Court, and two seniormost Chief Justices of High Courts.
- If council concludes that a judge is “incapable of performing duties” or is guilty of “misconduct”, impeachment by the President follows.
- Contrastingly, in India, the key role in impeachment is that of the Parliament.
- Also, the grounds for action are more stringent i.e. “proved misbehaviour or incapacity”.

elections and government formation

- **PM** - In Pakistan the Prime Minister resigns ahead of the elections.
- The Leader of Opposition and the PM together select a caretaker PM.
- If they cannot agree, each will send two names to the Speaker.
- Speaker will then refer it to a parliamentary committee.
- The Committee has equal representation from the ruling and opposition parties.
- **Government** - The PM and provincial Chief Ministers are elected by the newly constituted House in India.
- Hence, the Pakistani constitution has no provision for a confidence vote (after elections).
- Also, if two candidates are tied, voting continues until one secures a majority.
- So unlike in India, the President or Governors have no role even if no party has a clear majority.
- **No-confidence** - A motion of no-confidence can be moved by 20% of members.
- It will succeed if passed by a majority of the total membership of the House.
- In India, it must be passed by a simple majority of those present and voting.
- **Candidates** - Muslim candidates in Pakistan's elections have to be of good character, wise, righteous, honest, and non-profligate.
- They should have adequate knowledge of Islam, and should not have committed any major sin.

- In India, the eligibility conditions and qualifications are more of a legal nature and not related to religion.
- **EC** - In India, Election Commissioners are chosen by the government and are generally IAS officers.
- The process is more complex in Pakistan.
- The Chief Election Commissioner has to be a sitting or retired judge of the Supreme Court or a High Court.
- If not, he/she should be qualified to be appointed as an SC judge.
- The PM in consultation with the Leader of Opposition forwards three names to a 12-member parliamentary committee.
- The committee has equal representation from the government and the opposition.
- The Election Commission has four other members.
- Each will be a judge from one of the four provincial High Courts of Punjab, Sindh, Balochistan and Khyber Pakhtunkhwa.
- The Election Commission of Pakistan has the financial autonomy over issues relate with it.
- India's Election Commission does not have such autonomy as appeals can be made in the Court.
- **Reservations** - Of the 342 seats in the National Assembly in Pakistan, 272 are filled by direct elections.
- Among the rest, sixty seats are reserved for women.
- 10 seats are reserved for religious minorities.
- These are filled by proportional representation among parties that get more than 5% of the popular vote.
- The four provincial assemblies have their own quantum of reservations for both women and minorities.
- Parties must give 5% of tickets to women candidates in the general seats.
- If less than 10% women voters cast their votes in any constituency, the result there is nullified.

India's Path to Monetary Independence

Context:

- Recently, the "Indian Rupee" depreciation to more than Rs. 70 a dollar.
- In this context, it would be worthy to understand the context of how India achieved monetary independence, which was much later than 1947.

History of the Indian rupee

Pre-Independence

- The association of Indian rupee with Britain was prolonged by factors beyond India's control and continued even long after Independence.
- From 1931 onwards, rupee was pegged to the "sterling standard" (Britain's currency), which was a depreciating one at that time.
- **War** - Because of this monetary dependence, when Britain (and France) declared war on Germany in 1939, it impacted the currency situation severely.
- India's economy was also geared up by the colonial government towards the war effort through imposition of production & money exchange restrictions.
- Notably, the rupee, which was completely convertible into any currency before, was made inconvertible into any other currency from 1939.
- Fund transfers outside British territory were severely restricted and dollar securities held by private individuals were also compulsorily acquired.
- This was done to enhance Britain's dollar reserves, and people were compensated in rupees at an arbitrary rate, resulting in losses to many.
- **Implications** - Dollars for the war were also raised by selling silver bullion from India's reserves to governments outside the sterling area.
- Importantly, dollars were spent on imports of essential consumables as dictated by the war requirements, and not others.
- India had accumulated a sizeable sterling balance of £1,300 million in 1946, as almost all forms of consumer imports were curtailed due to war.
- Subsequently, the corresponding increase in rupee circulation which was stocked up during the war, caused inflation in India.

Partitioning the Pie

- After the war ended, the transfer of the sterling balances was negotiated between India and Britain and later Pakistan also joined in.

- Winston Churchill had been threatening to write off the sterling balances if not given a deal that is to his liking (which was an exorbitant ask).
- But, with Churchill losing power in 1946, the new regime in Britain towed a more cordial tone towards India despite some tough negotiations.
- India sought a commitment from Britain that “sterling (which was then over valued), won’t be devalued in the near future, but that was refused.
- Further, the chaos of partition violence and other unsettled political questions sidelined the more mundane economic discussions to the margins.

The deal

- Britain managed to secure restrictions on both India and Pakistan to judiciously use their Sterling reserves to secure its own “balance of payment”.
- **Stress** - Britain had initially agreed to make the pound convertible under the terms of a loan from the U.S., which meant India could spend in dollars.
- But Britain soon repudiated this convertibility clause, which in turn altering the character of the agreement entered into with India.
- The pound convertibility pact was violated as Britain had to meet its massive imports from U.S. due enhanced consumer demand in the post war years.
- A delegation was sent back to London to renegotiate the convertible portion of the sterling balances but that mission failed and the deal was never secured.
- **Results** - The negotiations were finally concluded in the summer of 1949, after the completion of the bitter separation of Indian and Pakistani finances.
- The Indian side agreed to deductions from the sterling balances for pensions of former British members of the ICS and for military equipment purchases.
- The subtractions added to £100 million and limits were placed on how much could be drawn in a given period from the balances.

Variation in valuations

- While the British side gave credible warnings of an imminent sterling devaluation, the Indian side failed to decipher and capitalise on them.
- The sterling was devalued steeply in September 1949, which took India by surprise and literally wiped off a third of the value of India’s sterling reserves.
- Subsequently, India too had to devalue its rupee proportionally, which had considerable economic implications as imports become costly.
- The two currencies were delinked in 1975 and have functioned independent of each other in monetary terms ever since.
- The sterling was floated against the major international currencies in the early 1970s, but rupee was floated only in 1993-1994, after liberalisation policies.

IN SHORT

MaharshiBadrayan Vyas Samman

- There are two kinds of awards given by Indian president to language scholars - a certificate of honour and Maharishi Badrayan Vyas Samman.
- Scholars in the Sanskrit, Pali, Prakrit, Arabic, Persian, Classical Oriya, Classical Malayalam, Classical Kannada and Classical Telugu languages are eligible.
- A certificate of honour is for scholars aged 60 and above.
- Maharishi Badrayan Vyas Samman is for scholars between 30-45 years of age.
- This distinction is conferred once a year on the Independence Day in recognition of substantial contribution to these languages.

Classical languages

- As of now, six languages i.e. Tamil, Telugu, Kannada, Malayalam, Odia and Sanskrit have been given the status of classical languages.
- The criteria adopted for the eligibility of a language for granting classical language status are
 - High antiquity of its early texts/ recorded history over a period of 1500-2000 years;
 - A body of ancient literature/ texts, which is considered a valuable heritage by generations of speakers;
 - The literary tradition be original and not borrowed from another speech community;
 - The classical language and literature being distinct from modern, there may also be a discontinuity between the classical language and its later forms or its offshoots.
- The benefits include-
 - A one-time grant of Rs 100 crore for research and development of the language.

- Two major annual international awards for scholars of eminence in the concerned language.
- Setting up of a 'Centre of Excellence for Studies in Classical Languages' can be set up.
- The University Grants Commission can be requested to create, to start with at least in Central Universities, a certain number of professional chairs for classical languages, for scholars of eminence in the concerned language.

Global Liveability Index

- The index is released by Economist Intelligence Unit (EIU), research and analysis wing of "The Economist" group, headquartered in London.
- It ranks 140 global cities based on their living conditions.
- It quantifies the challenges that might be presented to an individual's lifestyle in the cities worldwide.
- The index assigns cities scores on five broad parameters such as stability, healthcare, culture/environment, education, and infrastructure using 30 indicators.
- In this year's Global Liveability Index 2018, Vienna displaces Melbourne as the most liveable city in the world.
- It is the first time that a European city has topped the rankings of the Economist Intelligence Unit (EIU) annual survey
- The other top 10 cities are Melbourne, Osaka, Calgary, Sydney, Vancouver, Tokyo, Toronto, Copenhagen and Adelaide.
- Syrian capital of Damascus continues to be ranked at the bottom, Dhaka in Bangladesh is the second worst and Karachi in Pakistan is the fourth worst.
- Indian cities Delhi and Mumbai ranked at 112 and 117 respectively.
- This index is in contrast with the Ministry of Housing and Urban Affairs' Ease of Living Index for 111 Indian cities wherein Mumbai ranked at number 3, far ahead of New Delhi at a low 65th rank.

Hague Adoption Convention

- The Hague Convention on Protection of Children and Co-operation in Respect of Inter-country Adoption was adopted in the year of 1993.
- It protects children and their families against the risks of illegal, irregular, premature or ill-prepared adoptions abroad.
- It seeks to prevent the abduction, the sale of, or traffic in children.
- It reinforces Article 21 of the UN Convention on the Rights of the Child.
- The convention operates through a system of national Central Authorities.
- In India, Central Adoption Resource Authority (CARA) is the nodal agency designated to deal with the provisions of this convention.
- Recently, the government of Australia has decided to recommence the adoption programme with India as per this convention.
- The Australian government had earlier put the adoptions from India on hold citing the charges of trafficking of children by the Indian agencies for inter-country adoption.

Pitch to MOVE

- It is a competition organised by NITI Aayog in collaboration with Invest India and Society of Indian Automobile Manufacturers (SIAM).
- It aims to identify and reward the start-ups offering innovative solutions for shared, connected, and environment friendly mobility.
- The winners will be awarded in the Global Mobility Summit which will be organised in the month of September, 2018.
- The objective is to harness the latest disruption for generating employment and growth in our country.

South Pars

- South Pars is the world's single largest natural gas field located in Iran.
- It is being developed in several phases with foreign collaboration.
- French Energy company had previously held 80% of the stake in this project.
- But following the US sanctions, it has reduced its shares.
- China National Petroleum Corporation (CNPC), the world's third-largest oil and gas firm has replaced french company's stake.

INS Sahyadri

- It is the third and latest indigenously built stealth frigates.

- It belongs to the Shivalik Class of Frigates and forms a part of the Eastern Fleet of Indian Navy.
- It participated in trilateral Malabar war games with Japan and the U.S. off the Coast of Guam.
- It has also participated in RIMPAC (Rim of the Pacific Exercise) off the Hawaii coast and has been adjudged runner-up in an innovation competition.
- It is visiting the Republic of Fiji enroute to India after participating in the RIMPAC.

Internal Complaints Committee

- Sexual Harassment of Women at Workplace (Prevention, Prohibition and Redressal) Act, 2013 makes it mandatory for the constitution of Internal Complaints Committee (ICC).
- ICC will probe sexual harassment allegations at workplaces.
- It is mandatory for any organisation with 10 or more employees to constitute an ICC.
- An employer who doesn't do so could face a fine of up to Rs. 50,000.
- An ICC should consist of
 - A presiding officer, who is a woman employee at a senior level in the same organisation,
 - At least two employees "preferably committed to the cause of women", and
 - A member from an NGO or a person "familiar with issues relating to sexual harassment."
- The committee would have powers similar to those of a civil court and would have to complete its inquiry within 90 days.
- Recently, the Corporate Affairs Ministry has amended the Companies (Accounts) Rules, 2014, which mandates companies to disclose whether they have constituted an ICC.

RUCO initiative

- Repurpose Used Cooking Oil (RUCO) is an initiative launched by The Food Safety and Standards Authority of India (FSSAI).
- It will enable collection and conversion of used cooking oil to bio-diesel.
- Under this initiative, 64 companies at 101 locations have been identified to enable collection of used cooking oil.
- FSSAI is also working in partnership with Biodiesel Association of India and the food industry to ensure effective compliance of used cooking oil regulations.
- The cooking oil regulation mandates that the maximum permissible limits for Total Polar Compounds (TPC) have been set at 25 per cent, beyond which the cooking oil is unsafe for consumption.
- TPC is one of the reliable variable to keep track of the changes in quality of oil during frying process.
- The repeated use of oil at high temperatures result in oxidative, polymerization and thermal degradation reactions.
- This reaction will lead to changes in their physical, chemical, nutritional and sensory properties which increase the TPC of oil.

Restricted Areas Permit

- Union Home Ministry has recently excluded Andaman & Nicobar Islands from the Restricted Area Permit (RAP) till December 31, 2022.
- Under the Foreigners (Restricted) Areas Order, 1963, entire Andaman & Nicobar Islands and part of the Sikkim State have been declared as 'Restricted' Areas.
- A foreign national (except Bhutan) is not normally allowed to visit the restricted areas.
- They require a special permit from the competent authority delegated with powers to issue such a special permit or from Ministry of Home affairs.
- Some areas are notified by the Union Government from time to time that allows foreigners to visit restricted areas with a view to promote tourism.
- It was notified subject to condition such as,
 1. Citizens of Afghanistan, China and Pakistan would continue to require RAP to visit the UT,
 2. Citizens of Myanmar will continue to require RAP, which shall be issued only with the prior approval of the Home ministry,
 3. Separate approvals of the competent authority would be required for visiting reserved forests, wildlife sanctuaries and tribal reserves.

UPI 2.0

- Unified Payment Interface is a platform created by the National Payments Corporation (NPCI) to facilitate faster and smoother digital payments.
- It allows a customer to pay directly from a bank account to another bank account & different merchants, both online and offline, without the hassle of typing credit card details, IFSC code, or net banking/wallet passwords.

- UPI 2.0 is an upgraded version with several new features added to UPI.
- It allows scheduling payment transfers at a later date with pre-authorization.
- It allows customers to link their overdraft (OD) account with UPI. In the Earlier version, only current and savings account can linked.
- It will also let users verify UPI credentials using a QR code.
- Customers can now receive invoices from merchants directly in the inbox to verify the authenticity of credentials.

International Nitrogen Initiative

- International Nitrogen Initiative was established in 2003 under sponsorship of the Scientific Committee on Problems of the Environment (SCOPE) and International Geosphere-Biosphere Program (IGBP).
- The key aims of the INI are,
 1. To optimize nitrogen's beneficial role in sustainable food production,
 2. To minimize nitrogen's negative effects on human health and the environment resulting from food and energy production.
- The INI holds a conference every three years to discuss ideas and exchange knowledge on nitrogen issues.
- The last INI conference was held in Melbourne, in December 2016, adopting Melbourne declaration.
- The next INI conference will be held in Berlin, Germany, in 2020.
- The 5th International Nitrogen Conference in 2010 (N2010) was organized by INI and its South Asia regional centre in New Delhi.
- N2010 enabled INI to bring together its contributions to the Global Nitrogen Assessment.
- Under this, Indian Nitrogen Group has released "The Indian Nitrogen Assessment", India's first-ever such attempt to study nitrogen pollution.
- INI is coordinated by a Steering Committee, led by a chair and six regional centre directors representing, Africa, Europe, Latin America, North America, South Asia and East Asia.
- Recently, Indian scientist-academician, N Raghuram, has been elected Chair of the Steering Committee of INI.

Chang'e 4

- Chinese space agency has recently revealed images of the exploration vehicle which will carry Chang'e 4 by the end of this year.
- Chang'e 4 is a Chinese lunar exploration mission.
- The mission will incorporate an orbiter, a robotic lander and rover.
- It will be China's second lunar lander and rover.
- It will reach the far side of the Moon, not visible from the Earth, a feat no country has ever achieved.
- Chang'e-4 will follow China's successful Chang'e-3 mission which soft-landed on the visible side of the Moon in 2013.
- The exploration vehicle is similar to Yutu, China's first lunar rover launched in 2013 along with Chang'e 3.

NABH Nirman Scheme

- NABH (NextGen Airports for BHarat) Nirman is an initiative by the Ministry of Civil Aviation.
- Under the scheme, the government proposed to expand airport capacity by more than five times to handle a billion trips a year.
- The three aspects of NABH Nirman are building of airport capacity through,
 - i. fair and equitable land acquisition,
 - ii. long-term master plan for airport and regional development,
 - iii. balanced economics for all stakeholders

POLITY, GOVERNANCE AND PUBLIC POLICY

Art 35A and Art 370

In News: The Supreme Court is hearing petitions challenging the validity of Art 35A. The provisions need an understanding in the context of the solemn promises at the heart of the Indian federation.

Art 35A

- Art 35A was inserted as part of the amendments made through a 1954 presidential order, imposed under Article 370.
- It empowers J&K to define a class of persons as constituting "permanent residents" of the State.
- Also, it allows the government to confer on these persons, special rights and privileges.

- These relate to matters of
 - public employment
 - acquisition of immovable property in the State
 - settlement in different parts of the State
 - access to scholarships
 - other such aids that the State government might provide
- It exempts such legislation from being annulled on the ground that they infringe on any of the fundamental rights.

Background

- The petition considers this immunity granted to J&K's laws as discriminatory.
- It also claims that Art 35A could not have been introduced outside the ordinary amending procedure prescribed under Article 368.
- It thus calls for declaring Art 35A unconstitutional.
- A three-judge Bench of the court intends to consider if Article 35A infringes the Constitution's basic structure.
- Based on this, it would decide if the case has to be referred to a larger bench for further examination.

Justification for Art 35A and Art 370

- The law on the subject is well settled as previous Benches have already shown approval for the 1954 presidential order.
- Even otherwise, Art 35A is not amenable to a conventional basic structure challenge.
- This is because India's Constitution establishes a form of asymmetric federalism.
- Clearly, some States enjoy greater autonomy over governance than others.
- This asymmetry is typified by Article 370.
- In its original form, Article 370 accorded to J&K a set of special privileges.
- This includes an exemption from constitutional provisions governing other States.
- Also, under J&K's Instrument of Accession, it restricted Parliament's powers to legislate over the State to three core subjects.
- These are defence, foreign affairs and communications.
- Parliament could legislate on other areas only through an express presidential order.
- This should be made with the prior concurrence of the State government.
- For subjects beyond the Instrument of Accession, the further sanction of the State's Constituent Assembly was also mandated.
- Finally, the Art 370 also granted the President the power to make orders declaring the provision inoperative.
- But this authority could be exercised only on the prior recommendation of the State's Constituent Assembly.
- Even changes made to the Constitution under Article 368 will not mechanically apply to J&K.
- For such amendments to apply to the State, specific orders must be made under Article 370.
- This is only after securing the J&K government's prior assent.
- Moreover, such amendments will also need to be ratified by the State's Constituent Assembly.
- So evidently, Art 370 represents the only way of taking the Indian Constitution into J&K.
- Also, Article 370 is as much a part of the Constitution as Article 368, thereby to justify the validity of Art 35A.

Second Chamber in States

In News: Odisha's plan calls for a national policy on the utility of a second chamber in States.

Odisha's proposal

- Odisha now wants to join the group of States that have an Upper House.
- The State Cabinet has approved a 49-member Legislative Council.
- It has accepted the report of a committee set up in 2015.
- The committee studied the functioning of the second chamber in other States and made recommendations.

Parliament's stance

- The State Assembly has to pass a resolution for the creation of the Council, by a majority of its total membership. Thereafter, Parliament has to enact a law to create it.
- Notably, two Bills introduced in the Rajya Sabha in 2013 for establishing Legislative Councils in Assam and Rajasthan are still pending.
- It apparently indicates the lack of support for such a move.

- A parliamentary committee that went into these Bills cleared the proposals, but struck a cautionary note.
- It wanted a national policy on having an Upper House in State legislatures to be framed by the Union government.
- This is to ensure that a subsequent government in the State does not abolish it.
- It also favoured a review of the provision in the law for Councils to have seats for graduates and teachers.

Legislative Council

- Article 169 of the Constitution of India provides for the establishment of a Vidhan Parishad.
- The Vidhan Parishad or Legislative Council is the upper house in those states of India that have a bicameral legislature.
- This arrangement parallels that for the Rajya Sabha, the upper house of the Parliament of India.
- As of 2017, seven states have a Legislative Council. They are: Andhra Pradesh, Bihar, J & K, Karnataka, Maharashtra, Telangana, Uttar Pradesh.
- The size of the Vidhan Parishad cannot be more than one third of the membership of the Vidhan Sabha.
- However, its size cannot be less than 40 members (except in Jammu and Kashmir, where there are 36 by an Act of Parliament.)
- MLCs are chosen in the following manner:
 - One third is elected by members of local bodies such as municipalities, gram sabhas/gram panchayats, panchayat samitis and Zila Parishads.
 - One third is elected by members of Legislative Assemblies of the State from among the persons who are not members of the Assembly.
 - One sixth are nominated by the governor from persons having knowledge or practical experience in fields such as literature, science, arts, the co-operative movement and social service.
 - One twelfth is elected by persons who are graduates of three years' standing residing in that state.
 - One twelfth are elected by persons engaged for at least three years in teaching in educational institutions within the state not lower than secondary schools, including colleges and universities.

Benefits of a second chamber

- The advantages of having a bicameral legislature are well-known.
- An Upper House provides a forum for academicians and intellectuals.
- They are arguably not suited for the nature of electoral politics.
- In essence, it provides a mechanism for a more serious appraisal of legislation.

Concerns

- If there was any real benefit, all States in the country should have a second chamber.
- The fact that there are only seven such Councils suggests the lack of any real advantage.
- Also, there is, clearly, the absence of a broad political consensus on the issue.
- The forum is likely to be used to accommodate party functionaries who fail to get elected.
- This may defeat the objective of getting intellectuals into the legislature.
- There is also a question of giving graduates the privilege of being people's representatives in a democracy.
- Today, legislatures draw their talent both from the grassroots level and the higher echelons of learning.
- There are enough numbers of doctors, teachers and other professionals in most political parties today.
- Besides, the second chamber is also an unnecessary drain on the exchequer of the state.
- It is also a restraining force against the dominance of elected majorities in legislative matters.
- Given these, Odisha's proposal may give the country an opportunity to evolve a national consensus on Legislative Councils.

Personal Laws (Amendment) Bill, 2018 - Leprosy

In News:

- The Personal Laws (Amendment) Bill, 2018 was recently introduced in the Lok Sabha.
- Also, Supreme Court has been hearing a petition to uphold the rights of people with leprosy and the repeal of discriminatory laws.

Personal Laws (Amendment) Bill, 2018

- The Personal Laws (Amendment) Bill, 2018, seeks to make a start in amending the outdated statutes.

- It attempts to end the discrimination against leprosy persons in various central laws:
 - the Divorce Act, 1869
 - the Dissolution of Muslim Marriages Act, 1939
 - the Special Marriage Act, 1954
 - the Hindu Marriage Act, 1955
 - the Hindu Adoptions and Maintenance Act, 1956
- The Bill eliminates leprosy as a ground for dissolution of marriage or divorce.
- The amendments omit the provisions which stigmatise and discriminate against leprosy-affected persons.
- The Bill is meant to provide for the integration of leprosy patients into the mainstream.
- It was introduced keeping in view the UN General Assembly Resolution of 2010.
- It talks on elimination of discrimination against leprosy-affected persons and their family members.
- India has signed and ratified the Resolution.
- However, the Bill is only a small step in addressing the issues.

Other measures

- The Lepers Act of 1898 was repealed only two years ago.
- Recently, the Supreme Court asked the Centre about bringing in a positive law.
- It relates to conferring rights and benefits on persons with leprosy.
- It also intends at deeming as repealed, all Acts and rules that perpetuate social stigma.
- An affirmative action law recognising their rights and benefits can serve a larger purpose.
- It may help remove misconceptions about the disease such as physical segregation of patients is necessary.
- Besides, the 256th Report of the Law Commission came up with a number of suggestions.
- It included the repeal of discriminatory legal provisions.
- It listed for abolition of personal laws and Acts on beggary.
- While governments may have to handle the legislative part, society has an even larger role to play.

Concerns

- Over 110 Central and State laws discriminate against leprosy patients.
- Some of these colonial laws predate leprosy eradication programmes and medical advancements.
- These laws stigmatise and isolate leprosy patients and are coupled with age-old beliefs about leprosy.
- Now, modern medicine, especially multi-drug therapy, completely cures the disease.
- In independent India, the law has been an instrument for social change.
- Nevertheless, the process of removing the discrimination has been worryingly slow.
- Recent developments signals hope at removing discrimination in law and society against the leprosy-affected.
- One of them is the introduction of the Personal Laws (Amendment) Bill, 2018 in Parliament.

Leprosy

- Leprosy, also known as Hansen's disease, is a chronic infectious disease caused by *Mycobacterium leprae*.
- The disease mainly affects the skin, the peripheral nerves, mucosal surfaces of the upper respiratory tract and the eyes.
- Leprosy is known to occur at all ages ranging from early infancy to very old age. Leprosy is curable and early treatment averts most disabilities.

Transmission

- The exact mechanism of transmission of leprosy is not known.
- At least until recently, the most widely held belief was that the disease was transmitted by contact between cases of leprosy and healthy persons.
- More recently the possibility of transmission by the respiratory route is gaining ground. There are also other possibilities such as transmission through insects which cannot be completely ruled out.

Dealing with Paid News

Context: The Election Commission of India (ECI) holds that paid news impairs the process of free and fair elections.

EC's observation

- Paid news refers to the news or analysis appearing in any media for a price in cash or kind.
- It plays a significant but negative role in the context of free and fair elections.

- It also involves under-reporting of election expenses by candidates.
- EC found 42 cases of paid news in the election of BJP's Narottam Mishra in 2008 Madhya Pradesh Assembly elections.

Laws to Deal paid news

- There is no specific law against "paid news" in India. But the poll panel depend on Section 10A of the Representation of Peoples Act (RPA).
- It deals with the misreporting of funds related to election expenses.
- E.g. In 2017, the ECI ordered Mishra's disqualification and barred him from contesting elections for 3 years.
- It argued that Mishra knew of, and by implication authorised the publication of the "reports".
- This should be seen as political advertising under Section 77 of the RPA.
- So, the expenditure incurred or authorised on this head should have been listed in the submissions to the poll regulator.
- But Mishra had "failed to lodge a correct and true account of his election expenses".

Court's view

- The Delhi High Court later set aside Mishra's disqualification.
- It said that the content of a media article or a news feature on particular candidates should not be regulated indirectly through EC's directives.
- It observed that they essentially fall within the domain of free speech.
- So, this eventually restricts the poll regulator from acting against paid news.

Demands in place

- The ECI suggested the Union government that paid news be made an electoral offence under the RPA.
- A Law Commission report from 2015 also recommends amending the RPA to this effect.
- But governments have approached the problem from a press regulation perspective rather than poll regulation.
- E.g. the earlier government brought the Registration of Newspapers and Publications Bill, 2013
- The present government proposed providing for suspension of publication permits for a period of 45 days for erring publications.

Way Forward

- Cracking down on candidates who mislead the electorate through paid news preserves India's democratic values.
- The ECI has approached the Supreme Court against the Delhi HC order, and so, much depends on which way the SC decides.
- Meanwhile, the government and political parties would do well to gather the will to amend the RPA.

Privacy bill to curtail misuse of data

In News:

- The government has opened up a draft privacy bill to curtail misuse of data, but the provisions in it seem largely lacklustre.

Implications of massive data streams

- Data has emerged in recent times as a very marketable commodity with a booming market and massive potential for further expansion.
- It is 1 year since Supreme Court's landmark judgment recognising the right to privacy as a fundamental right.
- While we often take our privacy for granted, in an age when 2.5 quintillion bytes of data is generated every day, privacy has large implications.
- Particularly, ensuring checks on how the state and others collect and use our data is vital for preventing the emergence of a surveillance state.
- Even the most trivial of things we do online generates information that gets shared across a wide range of entities, and we seldom realise the implications.
- "Data drives all we do" and the data breaches exposed thus far, reveal the extent to which personal data can be misused to influence one's choices.
- Notably, "Cambridge Analytica scandal" is one among many worrying signals about the extent to which vested interests are willing to go.

Proposed legislations

- A "Draft Personal Data Protection Bill, 2018", by Srikrishna Committee has been published earlier and is now opened for public scrutiny.

- After consultations, the government is likely to introduce the draft bill (with minor changes) as its version of the bill in the parliament.
- As an independent member bill on privacy (by Shashi Taroor) is already pending in Parliament, it would do good to compare and contrast both bills.
- Notably, even a basic reading of both reveals that there are fundamental differences between them, with Mr. Tharoor's being more individual centric.

Differences between the Two Bills

Mr. Tharoor's Bill

- The bill is built strongly on the privacy verdict and holds both private & government agencies handling data on the same footing.
- There is a strong emphasis on personal consent, absent which no personal data can be mined for commercial or other gainful purposes.
- Notably, acquiring consent presently a mere farce where individuals just press the click button without reading or understanding the implications.
- For consent to be effective, it must be unambiguous, free, voluntary, affirmative, and revocable and obtained prior to extraction of data for use.
- Further, to ensure consent remains effective, the data must be destroyed after the purpose is served (thereby preventing its reuse in another context).

Government's Bill

- The government's draft Bill grants "the right to be forgotten" but deceptively defines it as disallowing further disclosure of data.
- It seems that the government wants to revamp the globally accepted meaning of "forgotten" to "limited recollection".
- Through this, the government is merely posing as an upholder of privacy, unlike the leak-proof right to privacy sought by Tharoor's bill by erasing data.
- The government bill also fails to hold state actors accountable for any form of violation of privacy, even those as grave as interception or surveillance.
- Resultantly, the bill strengthens government's scope for privacy-violations and has also reduced its own transparency and accountability.
- Government's Bill primarily holds private entities accountable for the exploitation of personal data and disregards concerns about state misuse.

Required Apparatus for data protection

- There is a skewed power equation between the data processor and the individual, which any good data privacy law must redress.

Ownership

- One's ownership rights over personal data are inalienable and even if consent for usage, one does not forgo the ownership right over it.
- The concerned person must have the right to revoke permission for its usage, object to its processing or ensure its deletion if he wants to.
- If data is to be used for a purpose different from the one consent was obtained for or if the duration for usage is longer than it was obtained for, then effective consent must be obtained afresh for the new terms.

Exemptions

- Circumstances such as medical emergency, needing immediate use of personal data without effective consent, should be allowed.
- Similarly, one's right to privacy can only be diluted when there are no other means to resolve a threat to security of the state.
- The state may carry out surveillance only after authorisation by a privacy commission (an envisioned independent impartial privacy arbiter).
- The surveillance and interception must be limited to the necessity of the measure and must be proportionate to the threat it wants to overcome.
- In all these circumstances, from medical to security, the data so obtained must remain confidential and should be destroyed immediately the need end.
- Importantly, right to privacy can remain a pillar of our Constitution only if the exceptions are rare and subordinate to your rights.

Facial Recognition for Aadhaar Authentication

In News: UIDAI has announced a phased rollout of face recognition feature as an additional mode of authentication.

About the decision

- The Unique Identification Authority of India (UIDAI) has made facial scanning and recognition for Aadhaar-based authentication mandatory.

- This will accompany the fingerprint- and iris-based scanning procedures already in place.
- This added feature is being piloted for just telecom subscriptions at the moment.
- A minimum of 10% of each company's monthly authentication transactions have to be achieved through facial recognition.
- The phased rollout will allow UIDAI and industry to observe and assess any possible alterations needed.
- These will be incorporated before it is available for services in other sectors.

Benefits

- The feature makes Aadhaar more inclusive, with fine-tuning detection of identity-faking.
- Those who are unable to provide a clean fingerprint due to the nature of their work will get benefitted.
- Usually, a labourer is unable to provide fingerprint due to clay and micro-grit getting embedded in the lines of the fingers.
- Many kinds of work also cause an erasure of finger-prints.
- This applies to people in brick-laying to those working with corrosive chemicals such as lime, in the absence of protective gear.
- Even constant paper-handling could erase finger-prints either temporarily or permanently.
- So those who are deprived of services and government benefits because of this systemic issue will now be benefitted.
- Also, the feature will help people affected by certain disabilities and diseases.
- Facial recognition will also serve as a safeguard to prevent scams such as those involving forging finger-print records.

UIDAI

- The Unique Identification Authority of India (UIDAI) was established in 2009 as an attached office of the then Planning Commission.
- Later in 2015, it was attached to the Department of Electronics & Information Technology (DeitY) of the then Ministry of Communications and Information Technology.
- However it was made statutory authority under the provisions of the Aadhaar (Targeted Delivery of Financial and Other Subsidies, Benefits and Services) Act, 2016 ("Aadhaar Act 2016") under the Ministry of Electronics and Information Technology (MeitY).
- UIDAI was created with the objective to issue Unique Identification numbers (UID), named as "Aadhaar", to all residents of India.
- Under the Aadhaar Act 2016, UIDAI is responsible for Aadhaar enrolment and authentication, including operation and management of all stages of Aadhaar life cycle.

Aadhaar

- Aadhaar number is a 12-digit random number issued by the UIDAI ("Authority") to the residents of India after satisfying the verification process laid down by the Authority.
- Any individual, irrespective of age and gender, who is a resident of India, may voluntarily enrol to obtain Aadhaar number.
- It collects both the demographic and biometric information during the enrolment
Demographic information: Name, Date of Birth (verified) or Age (declared), Gender, Address, Mobile Number (optional) and Email ID (optional).
Biometric information: Ten Fingerprints, Two Iris Scans, and Facial Photograph.
 adhaar of card for my child. Is it Valid?
- **Blue colour Aadhaar:** UIDAI is issuing Blue Colour Aadhaar (Namely Bal Aadhaar) for children whose age is between 0 to 5 Years.
- After attaining the age of 5 years, this Aadhaar become Invalid and the child should get his/her demographic and biometric details updated against same Aadhaar Number by visiting nearest Enrolment Centre.
- Only a resident who has resided in India for a period or periods amounting in all to 182 or more in the 12 months are eligible for Aadhaar.

ECONOMIC AFFAIRS

State Finance Commissions

In News:

- As per the mandate, the fifth generation SFCs ought to have submitted reports by now. But till date, only Assam, HP, TN and Kerala have submitted their fifth SFC reports.
- Many States are yet to cross the third SFC stage.

Mandate of the SFC

- The 73rd and 74th Constitutional Amendments rationalised and systematised State/sub-State-level fiscal relations in India.
- It was primarily to rectify growing horizontal imbalances in essential public services delivery.
- Article 243I of the Constitution mandated the State Governor to constitute a Finance Commission.
- This was to be done within one year of the CAs (before April 24, 1994) and thereafter every five years.

Concerns

Reports

- As per the mandate, the fifth generation SFCs ought to have submitted reports by now.
- But till date, only Assam, HP, TN and Kerala have submitted their fifth SFC reports. Many States are yet to cross the third SFC stage.
- The large majority has violated the mandate of the Constitution with impunity.

Role

- The Union Finance Commissions (UFC) has been widely acknowledged as a professional and quasi-judicial body.
- The UFC exhibits seriousness, regularity, acceptance of recommendations and their implementation.
- But these are evidently absent when it comes to State Finance Commissions (SFCs).
- Clearly, honouring the Constitution has become a matter of convenience.

Personnel

- The SFCs' compositions are largely of serving and/or retired bureaucrats rather than academics.
- The State governments bear a large share of the blame for this.
- Overall, there has been an inadequate appreciation of the significance of SFC as an institution.
- This is the case with the Union, States as well as the professional community.

Importance of SFCs

Status

- The SFC is undoubtedly modelled on the UFC created under Article 280.
- The UFC is tasked with rectifying vertical and horizontal imbalances at the Union-State level.
- The SFC has to perform the same with reference to State/sub-State-level institutions.
- The Constitution treats a local government on a par with a State government.
- This is especially the case when it comes to sharing of financial resources.

Role

- SFCs have to promote minimum essential services in rural and urban areas.
- Hence, SFC is the institutional agency to implement the golden rule of cooperative federalism.
- Accordingly, every citizen should be assured minimum public goods irrespective of her choice of residence.

Federalism

- UFC is mandated to suggest measures to augment the resources of panchayats and municipalities.
- This is essentially on the basis of the recommendations made by the SFCs.
- This affirms the organic link between local governments and SFCs to fiscal federalism.
- As UFC reduces inter-State disparities, the SFCs reduce intra-State disparities through balanced distribution criteria.
- It is only with both the UFC and the SFCs that Indian federation becomes sustainable and inclusive.

Limitations for SFCs

- **Task** - The task of SFCs to correct horizontal imbalances is extremely burdensome than the UFC.
- This is because SFCs have to consider nearly 2.5 lakh local governments.
- **Data** - The financial reporting system of the Union and States is well laid down.
- On the other hand, local governments with no proper budgetary system are in deep disarray.
- So SFCs face a crucial problem of reliable data.
- **Support** - Several sufficient conditions remain unfulfilled in the case of SFCs.
- SFCs have not been provided with the necessary environment to play their rightful role in Indian fiscal federalism.
- **Perception** - Unlike UFCs, the SFCs face attitudinal limitation from within.

- SFCs and local governments are seen to be of inferior constitutional status than the UFC.
- This is a prevailing notion among several politicians, policy makers and even experts.

Way forward

- The federalist development state of India can grow only through a process of evolutionary policy making.
- The States are tasked with empowering local governments to discharge constitutional obligations.
- **SFCs** - Unlike the UFC, no SFC can easily ignore the following:
 - Articles 243G and 243W - planning “for economic development and social justice”
 - Article 243ZD - mandates that every State constitute a district planning committee for spatial planning and environmental conservation at the sub-State level
- **UFC** - UFCs have failed to play a central role in ensuring decentralised governance.
- No UFC has done its homework in reading and analysing SFC reports.
- The UFC has to present a consolidated account of the reality at the sub-State level.
- It should also highlight which report went wrong, where and how.
- These are essential for the UFC to legitimately guide States and contribute to improving the goals of constitutional amendments.

TRIFED Record Procurement

- Tribal Cooperative Marketing Development Federation of India Limited (TRIFED) has made record procurement of tribal products during the current financial year.
- There is an increase of 511% in procurement in comparison to the corresponding period of the last financial year.
- It is a national level apex organization functioning under the administrative control of Ministry of Tribal Affairs.
- The objective of TRIFED is socio-economic development of tribal people by undertaking marketing development of the tribal products.
- It serves the interest of Tribal people by ensuring better remunerative price for their Minor Forest Produce and tribal art and handicraft products.
- It is also engaged in skill up gradation and capacity building to develop the marketing of Minor Forest Produce.
- Its approach involves exploring marketing possibilities for products in national as well as international markets, brand building & creating opportunities for marketing on sustainable basis.

RBI's Conflict of Interest

Context:

- Reserve Bank of India's (RBI's) has asked the government for removing its nominees from the Public Sector Bank's boards.
- While this is part of the good governance reforms, the union government has refused to concede the same, which is unfortunate.

RBI Demand

- RBI has been repeatedly asking the finance ministry to allow the central bank to distance itself from the boards to avoid a clear conflict of interest.
- This is a long standing articulated by multiple 'RBI Governors' as it feels that its presence in the boards is hindering its regulatory role.
- Way back in the 1990s, the Narasimham committee on banking sector reforms had recommended that the RBI should give up its seats on the board.
- Further, in 2014, P J Nayak committee, on governance of bank boards, argued in favour of withdrawal of RBI nominees from PSB boards.
- Notably, the Nayak committee favoured a phased shift from the current, by slowly increasing the capacity of bank boards to take decisions.

Government's stand

- Government recently rejected RBI's demand in this regard.
- As PSBs have over the past few years, accumulated massive non-performing assets (NPAs), the government seems to be towing with caution.
- It seems to believe that without the presence of an RBI nominee, PSB boards may make more mistakes at this critical juncture.
- While banks have been criticised sternly for having taken imprudent decisions, the RBI too, has been criticised for failing to supervise the PSBs.

- But the RBI feels that it has been handicapped by regulations as it is essentially part of both the decision-making process as well as supervision.
- Notably, profits of PSBs have nosedived lately because of the RBI's insistence on more transparent recognition and provisioning of NPAs.

Way Forward

- The government seems to be confused on the RBI's unambiguous stand that it can involve in the bank's board and act as a regulator.
- Going by government's current stand, regulators in other domains should also have their nominees on the boards of PSU companies they supervise.
- As this is absurd and the government must reconsider this, and bring about the legislative change that is required.

Grounding Air India Crisis

In News: The Union finance ministry has refused to give taxpayers' money to the state-owned airline, Air India (AI).

Debt status of Air India

- The humongous debt burden of AI is getting in the way of its regular operation, such as the payment of employees and vendors.
- Government's effort to privatise AI was failed as the conditions attached to the sale were too onerous for any bidders.
- The Union ministry for civil aviation had apparently asked for the help of the finance ministry to resolve the AI crisis.
- The era of easy budget constraints for AI must come to a close and it is true that this might make it harder to privatise AI.
- For example, no purchaser would have been allowed to merge AI into their own operations to take advantage of any possible synergies which naturally made it very unattractive for other airlines.

Government's Plan

- The finance ministry has complained that there is still no coherent plan to revive AI.
- It is clear that sinking yet more hundreds of billions of rupees into the airline would not help.
- Conditions were also placed on the firing of employees and the government sought to retain a certain amount of control.
- Government decided it would not look good to be bailing out an airline in an election year when there are so many calls on the government's purse; it is nevertheless a decision that should be followed up on.

Measures needed to be taken

- Getting the entirety of the airline off the state's books is indeed the first-best solution.
- It is to be hoped that the finance ministry's refusal to disburse additional funds to AI will push the civil aviation ministry and the airline into serious consideration of where it can raise funds internally.
- Air India controls considerable real estate, and the finance ministry has suggested this be monetised, much of this should be sold to draw down debt.
- It also should be able to spin off some of its ground operations, which are already controlled by subsidiary companies.

Constant Currency

Context:

- Indian rupees are facing hurdles due to widening current account deficit.
- In this scenario the concept of constant currencies and realised exchange rates are found as alternative solutions.

constant currency

- Investors and analysts debating two different sets of numbers for companies from export-driven sectors such as software, pharma, textiles.
- One result based on 'constant currency' and the other based on the actual realised exchange rates.
- Results based on 'constant currency' show how a company would have fared for the quarter or year, had exchange rates between the rupee and the dollar (or euro or yen) not changed at all during the periods being compared.

Importance for business

- Swings in the rupee's exchange rate against a foreign currency can make a big difference to the growth numbers of export-oriented companies. They can bolster profit margins as well.

- The healthy growth figures in the reported currency may have nothing to do with the underlying business.
- So, companies like to strip out the effect of exchange rates on their numbers and report them on a 'constant currency' basis to inform investors how they really performed.
- Such numbers are calculated after assuming a fixed exchange rate for the dollar, euro or pound against the rupee.
- IT companies always tend to give their guidance in constant currency dollar terms.

Significance of constant currency

- Constant currency growth can be a better indicator of how a company's core business is faring than its reported numbers.
- Most exporters, including IT companies, deliver their services in the US and Europe and bill clients located in different geographies in different currencies.
- The major billing currencies are the US dollar, Euro and British Pound, in recent times the dollar has gained against all the major currencies of the world.
- The rupee too has declined heavily against the dollar, This makes it quite important to analyse the results without currency movements in the equation.

What is the way forward?

- Most companies tend to highlight whichever numbers make them look good, investors thus need to be cautious for taking informed decisions.
- If constant currency numbers exceed the actuals, the indication is that business traction is good, as is the case with the Indian IT pack currently.
- Investors, however, must keep in mind that stock valuations are based on only the numbers actually realised.
- Most analysts, however, tend to dwell on which numbers present the most realistic picture for a company.

Concerns with Weakening Rupee

- The depreciation five years ago, precisely on August 28, 2013, remains a watershed as the rupee touched Rs. 68.361 to the dollar.
- Thus, the worst in terms of volatility in recent years was seen in 2013-14, which saw the highest standard deviation at 3.08 and the coefficient of variation at 5.10 per cent.
- Subsequently, even though the currency touched 68.777 (on February 26, 2016), this was again not the worst in terms of volatility measured by standard deviation and coefficient of variation.
- Recently rupee has crossed the 70 mark against the US dollar; it is being seen as a rather quick slide to new all-time lows.
- India's debt liabilities are higher at around 51 per cent of GDP as on end-March 2018.

Factors that influence the exchange rate

- The movement in the exchange rate is influenced by demand for and supply of foreign currency liquidity (US \$ liquidity).
- In the balance of payments framework, demand for foreign currency is broadly determined by import of goods and services and outflows of foreign capital.
- The supply of foreign currency is influenced by export of goods and services, worker remittances and inflow of foreign capital.
- Thus there are three important elements linked to the weak rupee persistent current account deficit, episodes of net capital outflow in terms of speculative and debt capital outflow and predominance of debt capital in forex reserves.
- The current account deficit and net capital outflows influence the shortage of dollar liquidity, which result in rupee depreciation.

Way Forward

- The RBI, has taken action by containing excessive volatility in the exchange rate without reference to any predetermined level or band.
- India is a net liability country and should be cautious about building up reserves through debt.
- India need to further strengthen FDI and promote exports by diversification, improving the quality of our commodities, and focussing more on developing and emerging market economies.
- That is the only long term sustainable and viable way to prevent the rupee from falling.

Share Buyback

- A buyback is a mechanism through which a listed company buys back shares from the market.

- It can be done either through open market purchases or through the tender offer route.
- Under the open market mechanism, the company buys back the shares from the secondary market while under tender offer; shareholders can tender their shares during the buyback offer.
- A company prefers buyback usually when it has a significant cash reserve and feels that the shares are not fairly valued at the current market price.
- The brought back shares will have increased Earnings per share (EPS) by default.
- It is because a buyback is usually done at a price higher than the then prevailing market price, shareholders get an attractive exit option, especially when the shares are thinly traded.
- A company can use a maximum of 25% of the aggregate of its free reserves and paid-up capital for a buyback.
- Both Institutional investors and retail shareholders take part in a buy back offer.
- SEBI has recently revised the buyback regulations that stipulate 15% reservation for retail shareholders in a buy back offer.
- It gives retail investors a fair share in the offer, which otherwise could see large institutional investors tendering their shares leaving little or no room for small investors.

SOCIAL ISSUES

Punjab's new Blasphemy Bill

In News:

- Punjab Cabinet recently decided to amend the law to make acts of "sacrilege against the religious books" punishable with life imprisonment.
- This move is regressive, excessive, and fraught with undesirable consequences.

Context

- The Punjab assembly had passed a bill in 2016 for protecting the "Guru Granth Sahib" (holy book of the Sikhs) against sacrilege acts.
- The Centre had then returned the Bills, saying that protecting the holy book of only one religion would make it discriminatory and anti-secular.
- Notably, prior permission of the Central or State government is needed to prosecute someone under such sections.
- Hence, currently, the same bill has been cleared with slight amendments to cover other religious books like the "Bible, Koran and Bhagvad Gita".
- The bill, if passed, will strengthen the existing 'blasphemy law' which criminalises acts that outrage religious feeling.

Problems with the bill

Populism

- The 2016 bill was piloted by the Shiromani Akali Dal government following allegations of desecration of the holy book.
- Back then, opposition to the Bill was then limited to the question whether holy books of other religions did not warrant the same protection.
- The bill was a clear case of pandering to religious sentiments for political populism, and there was little concern for the long term implications.
- Considering the tenets of the bill, it may also set off a needless flurry of legislation in the rest of India to pander to different groups.
- Notably, existing provisions under the "Indian Penal Code" itself is sufficiently strong to protect the sanctity of religious symbols and sentiments.

Disproportionate

- Present Blasphemy Laws (to protect religious faith) already provide for a 3 year jail term for disrespecting religious symbols.
- But the current bill's proposal for enhancing the punishment to a "life term" is a little excessive and problematic.

Intention

- Blasphemy laws are largely aimed at preserving public order that might get disturbed by actions that flare up religious sentiments.
- While the sanctity of the religion is indeed important, a secular state works not to preserve religion but to preserve law and individual freedoms.
- In this context, actions perpetrated with the deliberate and malicious intention of outraging religious feelings and stir passions is to be curtailed.

- Hence, while laws need to be a minimum safeguard and limited in scope, the current proposal seeks to appease religious groups disproportionately.

Way Forward

- Significantly, 'sacrilege' itself is a vague term, and would render the section too broad, work counterintuitive to freedom of speech.
- Notably, there is a history of misuse of laws aimed to protect religious sentiments, which is a convenient tool to curtail liberal views.
- Many fringe groups weaponised these provisions for their own political ends, despite a clear lack of ground to press charges against the accused.
- Hence, there is actually a case to dilute the existing provisions and no rational to further the pandering of religious groups.

Indo-Pak Gurdwara Corridor

In News: Pakistan plans to open a corridor to Gurdwara Darbar Sahib at Kartarpur in Pakistan.

History Of Kartarpur Gurdwara

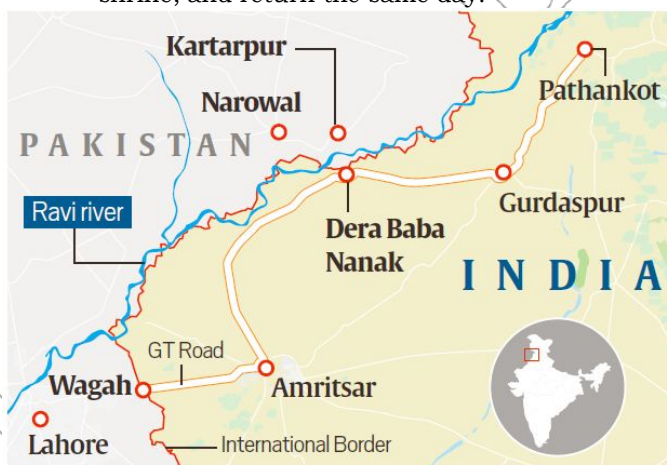
- The gurdwara in Kartarpur stands on the bank of the Ravi, about 120 km northeast of Lahore.
- It was here that Guru Nanak assembled a Sikh community and lived for 18 years until his death in 1539.
- The shrine is visible from the Indian side, as Pakistani authorities generally trim the elephant grass that would otherwise obstruct the view.
- Indian Sikhs gather in large numbers for darshan from the Indian side, and binoculars are installed at Gurdwara Dera Baba Nanak.

Significance

- The gurdwara was opened to pilgrims after repairs and restoration in 1999, and Sikh jathas have been visiting the shrine regularly ever since.
- There are no restrictions on visiting Gurdwara Kartarpur Sahib once a pilgrim has entered Pakistan on a valid visa.
- Sikh jathas from India travel to Pakistan on four occasions every year for Baisakhi, the martyrdom day of Guru Arjan Dev, the death anniversary of Maharaja Ranjit Singh, and the birthday of Guru Nanak Dev.
- These Indian pilgrims are given access to all gurdwaras in Pakistan.

Gurdwara corridor

- There have long been demands from pilgrims and political leaders to build a "corridor" flanked by barbed wire to allow pilgrims to cross over into Pakistan to visit the Kartarpur Sahib shrine, and return the same day.



- A bridge will need to be constructed over the Ravi, and there shall be no need for passports or visas.
- Most recently, the demand was placed before a Parliamentary Standing Committee that visited Dera Baba Nanak last year.
- By which Pakistan plans to open a gurdwara corridor in Narowal district on the 550th birth anniversary of Guru Nanak next year.
- The "corridor" would bring Pak infrastructure right up to the Indian border.

Concerns

- Over the past year, gurdwaras in Pakistan have been used for a pro-Khalistan campaign.

- Earlier this year, a gurdwara displayed posters and distributed pamphlets for the so-called “Sikh Referendum 2020”, and Pakistan denied permission to the Indian envoy and diplomats to visit it.
- Pakistan’s intent also remains suspect, and Indian officials are wary of the corridor being misused by both state and non-state actors in that country

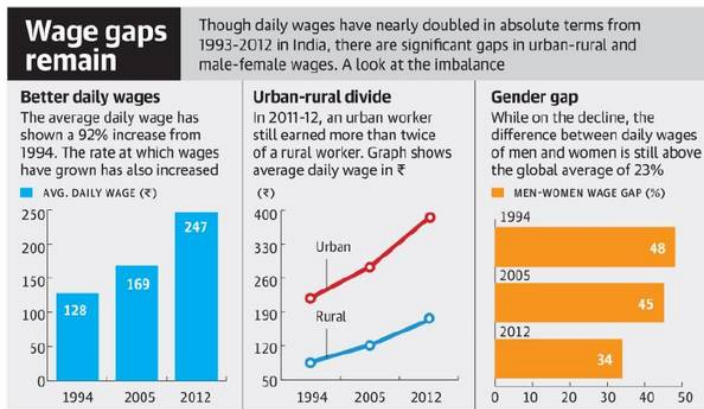
India Wage Report by ILO

The News: Recently, the International Labour Organization (ILO) has published India Wage Report.

- According to the report, real average daily wages in India almost doubled in the first two decades after economic reforms, but low pay and wage inequality remains a serious challenge to inclusive growth.

Key facts from the report

- Overall, in 2009-10, a third of all of wage workers were paid less than the national minimum wage, which is merely indicative and not legally binding. That includes 41% of all casual workers and 15% of salaried workers.
- In 2011-12, the average wage in India was about ₹247 rupees a day, almost double the 1993-94 figure of ₹128. However, average labour productivity (as measured by GDP per worker) increased more rapidly than real average wages.
- India’s labour share or the proportion of national income which goes into labour compensation, as opposed to capital or landowners has declined.
- Widening gap in wages:
- The rise in average wages was more rapid in rural areas, and for casual workers. However, these groups started at such a low base that a yawning wage gap still remains.
- Average wage of casual workers (62% of earning population) is only ₹143 a day
- Daily wages in urban areas (₹384) also remain more than twice as high as those in rural areas (₹175).
- Regional disparities in average wages have actually increased over time, with wages rising more rapidly in high-wage States than in low-wage ones.
- The gender wage gap decreased from 48% in 1993-94 to 34% in 2011-12, but still remains high by international standards.
- And of all worker groups, the average wages of casual rural female workers was the lowest, at just ₹104 a day.



Steps to be taken

- The ILO has called for stronger implementation of minimum wage laws and strengthening of the frameworks for collective bargaining by workers.
- This is essential to combat persistent low pay in some sectors and to bridge the wage gaps between rural and urban, male and female, and regular and casual workers.
- State-specific and comparative studies on wages and collaborative work between government agencies, academic institutions and expert organisations are needed.
- The lack of timely data is the main hindrance.
- ILO’s analysis and the decisions of Indian policy makers was dependent on 2011-12 data from the Employment and Unemployment Survey (EUS) of the National Sample Survey Office (NSSO) (as that was the last year in which the survey was done).

International Labour Organization

- ILO is the only tripartite (involving three parties) U.N. agency.

- It brings together governments; employers and workers representatives to set labour standards develop policies and devise programmes promoting decent work for all women and men.
- It was created in 1919, as part of the Treaty of Versailles to reflect the belief that universal and lasting peace can be accomplished only if it is based on social justice.
- The ILO became the first specialized agency of the UN in 1946.
- In 1969, ILO received the Nobel Peace Prize for improving peace among classes, pursuing decent work and justice for workers and providing technical assistance to other developing nations.
- It headquartered in Geneva, Switzerland.
- Its aim is to promote rights at work; Encourage decent employment opportunities; Enhance social protection and strengthen dialogue on work-related issues.
- Its objective is to
 - Set and promote standards and fundamental principles and rights at work
 - Create greater opportunities for women and men to decent employment and income.
 - Enhance the coverage and effectiveness of social protection for all.
 - Strengthen tripartism and social dialogue.

INTERNATIONAL AFFAIRS

Iran Crisis

In News:

- Trump administration had earlier imposed sanctions on Iran and walked out of the “JCPOA Nuclear Deal”.
- As sanctions are now taking a political toll in Iran, allies should facilitate talks with the U.S. to ensure that the situation doesn’t escalate.

JCPOA

- The Joint Comprehensive Plan of Action (JCPOA) is an agreement with five annexes reached by Iran and the P5+1 (China France, Germany, Russia, the United Kingdom, and the United States) in 2015.
- Iran’s compliance with the nuclear-related provisions of the JCPOA will be verified by the International Atomic Energy Agency (IAEA) according to certain requirements set forth in the agreement.
- Recently United States had withdrawn from the JCPOA and reinstate U.S. nuclear sanctions on the Iranian regime.

Existing economic concerns in Iran

- In the last six months, Iran’s currency has lost almost 60 per cent of its value vis-a-vis the US dollar.
- This apart, the Iranian private sector has long been starved of investment, its banking system is crippled by bad loans and record levels of unemployment mean a third of under-30-year-olds are out of work.
- At the end of last year, similar economic protests roiled Iran and spread to some 75 cities and towns, becoming the largest demonstrations in the country since its 2009 disputed presidential election.
- Due to this there are protests spiralled out of control in few parts of the nation with people openly criticising both Rouhani and Supreme Leader Ayatollah Ali Khamenei.

Context of the nuclear deal

Alarm

- Iran was thought to be in the process of acquiring nuclear capabilities as it had uranium enrichment plants, which raised a worldwide alarm.
- To restrain Iran from this endeavour, UN sanctions were introduced in 2010, which effectively curtailed Iran’s economy.

Compromise

- The election of Hasan Rohani (a moderate leader) as Iranian President in 2014 saw the commencement of talks with international players.
- Negotiations were carried out by P5+1 countries (permanent 5 in the UN, plus Germany), and a “Joint Comprehensive Plan of Action” (JCPOA) was evolved.
- This was called “Iranian Nuclear Deal” and it effectively placed restrictions on Iran’s potential to enrich Uranium and thereby develop a nuclear bomb.
- The deal proposed to lift sanctions on Iran in a phased manner and opened up Iran’s nuclear facilities for international inspections (by IAEA).

Politics

- This was appreciated as a historic deal that resolved a tense situation peacefully, for which Obama administration was commended for.
- But the Trump administration decried the deal since the start, claiming that it gave away too much to Iran, it recently withdrew U.S. from the deal.
- Further, it had introduced sanctions again and is also coercing its trading partners to do the same through stringent norms.

About the deal

- It is officially called the Joint Comprehensive Plan of Action (JCPOA).
- It was signed between Iran and the P5, plus Germany and the EU in 2015.
- P5 is the 5 permanent members of the UNSC (US, China, France, Russia, and UK).
- The deal aimed at curbing Iran's nuclear programme.
- Under the deal:
 - most of Iran's enriched uranium was shipped out of the country
 - a heavy water facility was rendered inoperable
 - operational nuclear facilities were brought under international inspection
- In return, the deal involved lifting of international sanctions on Iran.

US's concerns

- Trump administration says the deal did not target Iran's ballistic missile programme.
- It does not focus on Iran's nuclear activities beyond 2025. It also leaves Iran's role in conflicts in Yemen and Syria.
- It is said that the 'one-sided deal' did not bring calm and peace to the region.
- Iran has been compliant with the provisions of the deal. The deal is largely a successful one.
- So the actual concern for US is Iran's re-accommodation in the global economic mainstream.
- This is as well the concern for US's closest allies in West Asia, Israel and Saudi Arabia.
- Iran's rising economic profile would embolden it to increase its regional presence.
- This would pose a strategic threat to the interests of the U.S.-Saudi-Israel axis.

Implications for the Iran

Economic

- The Nuclear Deal and its subsequent lifting of sanctions had boosted Iranian economy massively and created an overall euphoria.
- Tehran had managed to double its oil exports, climbed out of recession and had managed to contain the runaway inflation that prevailed before 2015.
- With the return of economic sanctions, Iran has been prohibited from using the U.S. currency, and faces a bar on trade in cars, metals and minerals.
- Further, "Rial" lost over 50% of its value this year, pushing up prices and compelling consumers to convert their savings into gold and other assets.

Political

- Iranian Finance Minister and Central bank governor were removed recently for failing to handle the currency situation effectively.
- These actions have helped a little to subdue public anger against high inflation and alleged corruption, but the situation is far from addressed.
- The crisis has also upended the hand of extremist views within Iran's polity, thereby directly affecting President Rouhani's popularity.

Global implications

- The US has created a crisis in an already unstable region. It doesn't necessarily trigger an immediate collapse of the agreement.
- The UK, Germany, China, France and Russia still remain committed to the agreement.
- But it is to be seen if Europe and other powers will stick together or change under US pressure.
- If they deviate from their positions, West Asia will be a lot more dangerous.
- Iran is cautious, saying it would engage diplomatically with the remaining signatories.
- Notably, the challenges will emerge not only for Europe, once US sanctions are in place.
- Other nations with strong trade ties with Iran, including India, would also face the impact.

Future prospect

- **Internal** - Iranian Central Bank has announced a relaxation of foreign exchange rules to enhance access hard money for essential purchases.
- But with the next round of sanctions (to curb Iran's oil exports and financial dealings) slated to kick in by November, the future looks bleak.
- **International** - With tensions rising, there is speculation that Iran might blockade the vital Strait of Hormuz (33% of world's oil supplies flow here).



India's stance

- India has been a proactive votary of the international rules-based order. It has been extremely supportive of the Iran nuclear deal.
- India recognises Iran's right to peaceful uses of nuclear energy. On the other hand, it also highlights the international community's interest.
- It has thus maintained that the Iranian nuclear issue should be resolved peacefully.

Implications for India

Energy

- Until 2010-11, Iran was India's second-largest oil supplier after Saudi Arabia.
- But it slipped in subsequent years as international sanctions hit Iran.
- It is now India's third-largest supplier after Iraq and Saudi Arabia.
- But following the 2015 deal, the supplies rose considerably.
- A disruption to this trend may affect India's energy trade.
- India and Iran have strategic interests in keeping the relationship sustainable.
- But it should be insulated from the impact of sanctions.

Chabahar port

- Chabahar port is both a financial and a strategic investment for India.
- The engagement between India and Iran on Chabahar has gathered momentum.
- The work is expected to be completed soon.
- Possible American sanctions could hit infrastructure development in Chabahar.
- This could affect the pace of development and cause a delay.
- However, India may still have options if other signatories stick with the JCPOA.

West Asia

- Trump's move would mean US engaging with Iran's regional rivals Saudi Arabia and Israel.
- This could destabilise the region where over 8 million Indian migrants live and work.
- Military tensions in West Asia have forced India to evacuate its nationals in the past.
- However, India's capacity to do so is limited.

India-US relationship

- In Trump's administration, the US has been hard on Pakistan.
- But has asked India to be more proactive in the Indo-Pacific, with an eye on China.
- However, India has been wary of committing too much on the Indo-Pacific strategy.
- The India-US-Japan-Australia 'Quad' is also in the nascent stage.
- Moreover, uncertainties exist over the relationship with Russia.
- Amidst these, the Iran situation will test the durability of the "strategic partnership" between India and US.

NSG

- India is aspiring to join the Nuclear Suppliers Group (NSG).
- Given this, it has to make a clearer articulation of commitment to JCPOA.
- This will help with the Europeans, especially the French, who are backing India's NSG membership bid.

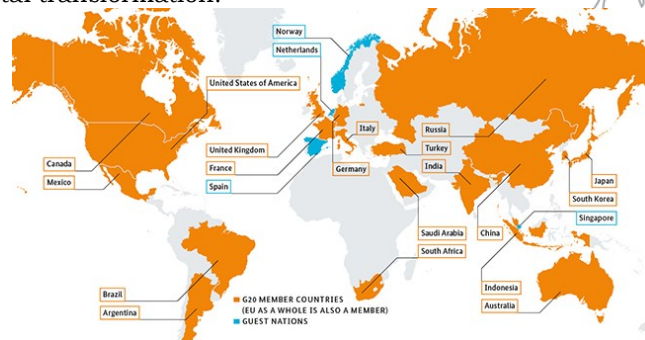
Way forward

- The Iranian's are a worried lot with the draconian sanctions ahead and USA hopes that this economic and diplomatic arm-twisting will force Tehran to negotiate a new deal.
- The only hope that Iran can cling on to is support from the EU and China, the initial signs of support from the EU, however, are very confusing though.
- China has issued encouraging statements for Iran by rejecting any unilateral US decision on the JCPOA and insists that China shall continue investing in Iran.
- Whatever be the outcome of the EU or Chinese support, it's unlikely that the Iranian populace has infinite patience in being dealt a raw hand yet again.

- This might create a worldwide panic and generate a situation akin to the oil shocks of the 1970s, which is undesirable.
- Direct confrontation isn't on anybody's cards, and a renewed nuclear deal also looks unlikely, thereby indicating the likelihood of a prolonged stalemate.
- **Hope** - Considering the likely fallouts, European Union (EU) and other international players should engage to ease the tensions between both sides.
- Even a small relaxation in U.S. sanctions might help in easing tensions within Iran, an option that is possible despite Trump's inconsistent policy stands.

G20 Digital Economy Meeting

- G20 Digital Economy Ministerial Meeting was recently held at Salta, Argentina. The G20 is made up of 19 countries and the European Union.
- This event took place as part of G20 Leaders' summit, which is going to be held at the end of 2018.
- It is going to be hosted by Argentina under the theme "Building consensus for fair and sustainable development".
- Under the Turkish presidency in 2015, G20 leaders recognized the modern period as a critical era of digital transformation.
- The Digital Economy Task Force (DETF) was established under the 2017 German presidency, based on the decision adopted in Hangzhou in 2016 under the Chinese Presidency.
- DETF will meet twice in a year to provide recommendations for inclusive development in the era of digital transformation.



Greece's Economic Bailout

Context:

- Greece recently celebrated its exit from bailout plans that commenced in 2010. Nonetheless, some imminent risks persist, which Greece needs to handle.

Context of Greece's Bailout

- Recently, Greek PM Alexis announced the end of Greece's third and final of the multiple bailouts since 2010, that helped the country avoid a financial collapse.
- During the 8 year period since 2010, Greece borrowed over \$330 billion from multiple lenders - IMF, European Commission and European Central Bank.
- In return, Greece undertook structural reforms, submitting itself to a controversial and painful austerity programme.
- Notably, during that phase, Greek economy shrunk by a quarter, unemployment was at 28%, and government spending was slashed heavily.
- Further, salaries and pensions of employees were also cut, and hundreds of thousands of Greeks emigrated and a third of the country fell into poverty.

Other Aspects

- While Greece has sailed through the bailouts and is looking optimistically towards the future, the path ahead is far from clear.
- Greece owes a staggering 180% of GDP in debt and also, and has also agreed for stringent budgeting conditions to its lenders for getting bailed out.
- Notably, Greece will now need to maintain a 3.5% primary surplus (a budget surplus prior to interest payments) until 2022 and then around 2% until 2060.

- IMF has warned that such budget surpluses are rare and is especially challenging for a country with an ageing population.
- Further, with the country just emerging out after a decade of economic strife, maintaining such high budgetary surpluses might impact its growth potential.
- This in turn might affect Greece's ability pay off its debt.

Pending Reforms

- Many reforms were taken up during the bailout period, but a lot else remains to be done – like greater flexibility in the labour market.
- Simplified licensing processes for companies and banking reforms to reduce non-performing assets (NPA) on bank's balance sheets are other areas.
- Notably, almost half of all outstanding loans of banks are now NPAs.
- Further, the existing tax base needs to be reorganised to ensure that the bulk of the burden doesn't fall on the middle classes as it now does.

Way Forward

- Greece's Euro zone creditors agreed in June to a softening of debt repayment terms, including extended maturity periods.
- Delayed interest payments and buffer funds to stabilise and ease the country's re-entry into financial markets are also being mulled over.
- Despite all this, the IMF has cautioned that Greece is at risk of getting stuck in a debt trap with onerous surplus conditions having to be maintained.
- These conditions imply restraints on government spending programmes that could, for instance, be used to stimulate growth.
- The country's creditors need to consider reducing the mountain of debt, so Greece stands a solid chance of emerging out completely from its downfall.

India-Pakistan Trade Ties

In News: The new Pakistan administration wants the proper trade relations between India.

Present Trade status

- Pakistan's annual trade deficit, which was \$20.435 billion in 2013, has been rising steadily.
- The deficit has been driven by the rising import bill of capital goods, petroleum products, and food products, and a steep fall in exports.
- The external balance of payments position is expected to be one of the top concerns for the Pak government.
- Trade between Indo-Pak jumped nearly three-and-a-half times between 2000-01 and 2005-06 (from \$251 million to \$869 million per annum).
- But progress was slower in the decade that followed, with volumes rising a little over three times.
- In 2016-17, "new exports" accounted for only 12% of India's total exports to Pakistan.

Existing Policy Bottlenecks

Most Favoured Nation

- Article 1 of the General Agreement on Tariffs and Trade (GATT), 1994, requires every WTO member country to accord Most Favoured Nation (MFN) status to all other member countries.
- India accorded Pakistan MFN status in 1996; a Pakistani cabinet decision of November 2, 2011 to reciprocate this, however, remains unimplemented.

Classifying Imports

- In 2012, Pakistan substituted a "Positive List" of a more than 1,950 tariff lines permitted for import from India, by a "Negative List" of 1,209 lines that could not be imported.
- India announced a 30% reduction in its SAFTA Sensitive list for Non-Least Developed Countries (NLDCs), including Pakistan, allowing for peak tariff on 264 items to be cut to 5% within three years.

Land route trade

- Through the Wagah - Attari land route near Punjab only 137 items are allowed currently, and the roadmap to address this has remained unimplemented.
- In 2014, both nations reaffirmed their commitment to expedite normal trading relations, and to provide Non-Discriminatory Market Access (NDMA) on a reciprocal basis.
- While both governments have facilitated a degree of industry outreach in recent years, progress on the ground has been subdued.

Areas needs to be explored

For Pakistan

- An influential grouping of businesses in Pakistan has recently sought a moratorium on new trade agreements, and renegotiation of the trade agreement with China.

- The 100-Day Economic Agenda of the Pakistan Business Council (PBC) has urged the new administration to increase trade with immediate neighbours such as India, Iran and Afghanistan.
- Obstacles in the way of normalising India-Pakistan trade relations, including weak logistics and customs processing, visa and travel restrictions needs to be addressed.

For India

- While India's electricity diplomacy with Bangladesh has broken new ground, a similar initiative with Pakistan continues to hang fire.
- Under a proposal that was actively discussed until early 2015, Pakistan wanted to hook up a portion of Lahore with the Indian side, enabling the capital of its Punjab province to draw electricity from the Indian grid.
- The idea then was to transfer 250-300 MW from India as a short-term fix for Pakistan's power crisis, and there is potential to revive it yet.

US-China Trade Wars - The Next Level

In News: Recently US imposed a second wave of tariffs on Chinese goods worth \$16bn (£12.4bn)

ongoing US-China trade wars

- US administration has led the country into the trenches against China in a trade war which has infuriated Chinese business.
- Punitive duties against aluminium, motorcycles, antennas and diesel are hurtling across no man's land, and peace palavers are stalling.
- The escalating trade row between the US and China has now seen each side impose 25% tariffs on a total of \$50bn of one another's goods
- The US has threatened a third round of tariffs on an additional \$200bn of Chinese goods, which could come as soon as next month.

Cause of USA's action

- US administration's main target is China, which is accused for "economic aggression," but the war is total.
- Key military allies of the U.S., Canada, Germany, South Korea, Japan, and Turkey are today locked in multiple trade disputes with it, being fought at multiple forums.
- So are countries such as Mexico and India, close partners of America, though not military allies.
- For USA's administration, free trade means trade that is free, fair, and reciprocal and balanced, which means Zero tariffs.
- But China, Japan, Germany and South Korea, among others, of being in violation of the above principles.

concerns with USA's tariffs

- In January, the administration imposed tariffs on import of washing machines and solar panels to America.
- China and South Korea took the issue to the World Trade Organisation (WTO).
- The U.S. would respect decisions by the WTO when they are in its favour and reject the rest.
- Tariffs of 25% on steel and 10% on aluminium on all trading partners, announced in March citing national security grounds, in an unprecedented move, have also kicked in.
- The EU, Canada and Mexico, which supply around half of all steel and aluminium imports to the U.S., retaliated with their own tariffs.
- The U.S. has filed WTO complaints against several countries that imposed retaliatory tariffs.

impacts

- U.S.-China trade tensions have bolstered protectionist forces in both countries.
- China doesn't wish to engage in a trade war, but it will resolutely respond to the unreasonable measures taken by the United States.
- So far the impact of the trade row on the Chinese economy had not been significant, but added that government spending would be increased to support workers affected by the tariffs.
- When US succeed in trade war this is good not only for the countries themselves but also for other nations because it enables economic growth and hence, greater trade opportunities.
- When they fail, the costs are borne primarily by domestic consumers and taxpayers.

way forward

- Since it started opening up its economy in 1978, China's rise has been inextricably linked to globalization.

- The more USA alienates allies in the West, the more readily would they enter China's ever-widening sphere of influence.
- Made in China 2025 Industrial policy, aimed at conquering new technologies like artificial intelligence and robotics and targeted by US's trade policy, should not be contested.
- Unless Beijing amends its heavy-handed statist approach to economic development, China's potential as a leading nation in science and technology could be seriously curtailed.

QUAD Grouping

- Indo-Pacific Quadrilateral is a closed group consisting of India, Australia, Japan & USA.
- Japan pioneered the initiative about a decade ago as a coalition of maritime democracies.
- Securing a rules-based global order, liberal trading system and freedom of navigation are believed to be the guiding principles.
- It aims to contain a rising China and its "predatory" economic and trade policies.
- The purpose is also to provide alternative debt financing for countries in the Indo-Pacific region.
- Report on stability was recently launched by four think tanks from the Quad countries at the Vivekananda International Foundation (VIF).
- The report was published by Quadripartite Commission on Indian Ocean Regional Security, which put out a series of 20 policy recommendations for stability in the Indian Ocean Region (IOR).
- It recommended that the four countries should work to oppose the establishment of permanent Chinese military bases in the IOR.

Challenges with India's Trade Policy

In News: Several nations have made common cause over Indian export promotion schemes in WTO.

Common cause of various nations on India

- Including European ones, Japan, Korea, Egypt and Sri Lanka have made common cause with the United States at the World Trade Organization (WTO) over Indian export promotion schemes.
- The US argued that India could no longer create targeted tax and subsidy schemes for its exporters as it violated WTO protocols.
- This is mainly because India has failed to make its argument with any persuasiveness.

Reasons behind the concerns

- Various schemes under WTO rules reserved for the poorest countries those with a per capita income under \$1,000 a year.
- India, however, crossed that bar way back in the early part of this decade and the figure is almost double that now.
- Yet the government not only persisted with export promotion schemes but even added to the stable of such programmes in recent years.
- India has argued that it has eight years to phase out export promotion but that is an unconvincing argument to make since it was originally applicable only at the time the rule was first introduced.
- It is in any case not relevant for countries that have had a per capita income of \$1,000 or higher for three years in a row.

Challenges before India

- In India, duty drawbacks for exporter's amount to export subsidies, and thus the government should have weaned exporters off them long ago.
- Instead, it has allowed the addiction to such tax breaks to grow.
- India makes the duty drawbacks more general, instead of them being applicable only to exporters for example, to an entire tradable sector.
- But the cost to the exchequer of such schemes would be problematic at a time when the government is struggling to stay on the path of fiscal consolidation.
- The other would be to allow exporters to gain competitiveness particularly from addressing high import tariffs.
- Import tariffs may protect sectors that are competing with those specific imports but function as a tax on those sectors which use such imports.
- But the government has several times raised tariffs in the past year as part of its turn towards protectionism.

Way forward

- A "Special" tax-and-subsidy package for exporters, combined with protection against imports, is a 1970s-style policy that should never have seen a renaissance in the first place.
- Instead, the time has come to seriously address India's inverted duty structure.

- This will require the political courage to tell sectors such as steel and electronics that they will have to improve competitiveness without the heavy hand of government support.
- However, together with a weaker rupee and greater emphasis on trade facilitation as well as reduction of red tape, it may turn out to be a blessing in disguise for India's exports.

Restrictions in Imports and Exports

- Central Government has recently amended the Import policy, imposing restrictions on bio-fuel imports.
- The free import of biofuels will now be allowed only for non-fuel purposes.
- The restricted biofuels will include ethyl alcohol and other denatured spirits, biodiesel, petroleum oils and oils obtained from bituminous minerals other than crude.
- The import of above items, which was free earlier, will now be allowed only for non-fuel purposes on an actual user basis.
- The government in its recent notification has revised the status of export of rare earth compounds.
- Export of rare earth compounds classified as beach sand minerals, permitted anywhere in the export policy earlier, will be regulated now.
- It has been brought under state trading enterprise and will be canalised through Indian Rare Earths Limited.

DEFENCE/SECURITY AFFAIRS

AFSPA Dilution Case

Context:

- A petition has been filed in the Supreme Court (SC) by many army personnel against the alleged dilution of the Armed Forces (Special Powers) Act (AFSPA).
- This comes in the midst of inquiry commencing into the multiple alleged extra judicial killings since 2000 on the direction by the SC.

context

- Recently, SC asked CBI to constitute a "Special Investigation Team" (SIT) to probe the 1,582 cases of alleged extra-judicial killings since 2000 in Manipur.
- Further, Jammu & Kashmir Police have also filed an FIR against an army officer for firing at alleged stone-pelters leading to the death of three persons.
- In this context, the petitioners had alleged that criminal investigations against Army personal for actions in line with their duty has demoralised the forces.
- But many hold the opinion that as there are serious allegations of human rights violations, the decision of service men to approach the court is wrong.

Petition: a wrong move

- The implementation or withdrawal of AFSPA from a particular terrain, or alterations in its provisions is political calls taken by elected governments.
- Hence, members of an apolitical institution like the armed forces should not be seen to act like a pressure group, to influence policy.
- In this context, the petitioning could even be perceived as a violation of the army act as forming collectives or organizing for political purposes is barred.
- The AFSPA has strong provisions that provide immunity for armed personnel involved in counter-insurgency operations.
- But transgressions while in the line of duty are open to legal scrutiny by courts and there have been extended debates on this aspect of AFSPA.
- Further, several commissions have suggested amendments to AFSPA, and the concerns of the armed forces too had figured in them prominently.

Way Forward

- Armed forces are apolitical state institutions, and it should not intrude into the affairs of the other arms of the state with a political agenda.
- In this context, the increasing propensity of army personnel to approach the courts for redress of policy reflects a failure of internal mechanisms.
- With multiple promotion and pay related issues also making it to courts, the internal structure needs to be bettered by the forces to improve the situation.

Foreign Assistance for Disaster Relief

- **Context:**
- India has turned down the UAE's reported offer of Rs 700 crore as aid for flood relief in Kerala.
- It has cited the 2004 policy of not accepting aid from foreign governments as the reason, which needs a relook.

rationale for the 2004 policy

Self-Reliance

- It was felt then that India could cope with the situation on her own and take help if needed.
- The idea was that India had become a large economy.
- Hence, accepting small aid moneys from countries was not in keeping with the times.
- The policy was also a symbolic signal to end India's dependence on concessional debt.

Economy

- Since 1956, India had severe foreign exchange constraints.
- But 2003-04 was a different year, with strong macroeconomic fundamentals.
- India had already graduated to become a "less indebted country" in the IMF ranking.
- It had also registered a surplus in its current account in 2001-02.
- Its foreign exchange reserves had also topped \$75 billion by 2003.

Superpower

- One of the contexts for the 2004 policy was the India's superpower dream.
- It was felt that India should demonstrate its strength to withstand and counter calamities.
- It should exhibit to the world that it could also help its neighbours.
- It was thought to strengthen India's case for a permanent seat in UN Security Council.
- These were believed to hasten the prospect of superpower status by 2020.

Diplomacy

- It was felt that assistance would leave scope for interference in internal affairs.
- Also, accepting from any one country offers the scope for others as well.
- But it would be diplomatically difficult to refuse from some and accept from others.

About the current controversy

- The 2016 guidelines have been mostly on paper.
- So the government has been following the policy on disaster aid decided in 2004.
- There is thus a clear mismatch between convention and written document.
- The recent aid for Kerala was also not accepted citing this "existing policy".

Concern

- There were doubts if the policy would be perceived as a rude gesture in diplomatic circles.
- Also, External Affairs Ministry was displeased with it as its explicit concurrence was not sought.
- The MEA thus had to deal with countries bilaterally, and manage the effect of an abrupt change in aid receiving policy.
- Over the years, the policy has also not made any noteworthy contributions for India to fulfil its ambitions.

2016 NDMP in this regard

- The 2016 National Disaster Management Plan (NDMP) provides for accepting foreign assistance in the wake of a disaster.
- Under this, the Government does not issue any appeal for foreign assistance.
- However, if the national government of another country voluntarily offers, it may accept.
- The Home Ministry is required to coordinate with the External Affairs Ministry (MEA) in this regard.
- As, MEA is primarily responsible for reviewing foreign offers of assistance and channelizing them.
- The 2016 NDMP guidelines also provides for multilateral assistance.
- Under this, India will accept an offer of assistance from UN agencies.
- But this is only if the government considers it necessary, based on various factors.
- If accepted, the Government of India will issue directions.
- The respective Ministry/State Government will then have to coordinate with the concerned UN agency.
- Any such financial assistance by UN financial institutions involving foreign exchange will require the Department of Economic Affairs' approval.

Analysis

- Offers of aid from foreign governments must naturally be scrutinised for national security interests.
- Also, state governments forming their own bilateral aid and assistance would be like allowing them to conduct an independent foreign policy.
- But India should not be mixing up its 20th century security fears with 21st century realities of technological advancements.
- Irrespective of policies, democracies should be flexible enough to respond to emergencies.
- The intention and objective should only be the greater good of the victims.
- Sticking merely to the precedent or pride may not serve the citizens' cause.
- The decision may also have a negative impact on India's relations with the UAE.

way forward

- Notions of self-reliance have to be reassessed in the larger context of a multilateral world.
- In the case of bilateral assistance, India needs to examine offers case by case.
- E.g. UAE's assistance comes as an obligation to help Kerala in distress, in accordance with the Islamic faith.
- As, Keralites have served their country well over the years.
- Similar is the case of Qatar, which has offered Rs. 35 crore.
- The need now for the central government is to use all assistance, Indian and foreign, to rebuild Kerala.
- It should also put an end to the 2004 precedent and bring into implementation the latest guidelines.
- India should also hold discussions with the UN and the Red Cross with a view to formulating plans for reconstruction.
- Using the latest technology and adopting such assistance would only benefit India.

Delaying Naga Peace Accord

Context:

- A Framework Agreement was signed in 2015 to end the decades-old Naga insurgency.
- However, the Naga peace process (accord) is yet to be finalised.

Nagaland issue

- Few sections of the Naga people are particular of forming a separate new country.
- This 'Greater Nagalim' incorporates the entire state of present Nagaland and some Naga-inhabited parts.
- These include parts of Manipur, Assam, Arunachal Pradesh and Myanmar.
- While the area of Nagaland is around 16,500 sq km, Greater Nagalim sprawls over 1,20,000sq km.
- The demand for Nagalim has always agitated Assam, Manipur and Arunachal.
- Peace talks with Nationalist Socialist Council of Nagaland (Isak-Muivah) [NSCN(I-M)], the then most lethal insurgent group started in 1997.
- In 1997, the insurgent group leaders agreed to a ceasefire.



2015 agreement

- The Framework Agreement was a culmination of so many rounds of negotiations over the years.
- It was signed by the Centre's interlocutor for Naga peace talks, RN Ravi and leader of the NSCN (I-M).
- It aimed at facilitating stronger ties among Nagas across the region.

- However, it does not change substantially the jurisdictional and administrative authority of neighbouring states.
- The framework agreement did accept special status for the Nagas.
- This gave due regard to the uniqueness of Naga history.

progress Report

- The Centre's interlocutor recently made a submission before a Parliamentary Standing Committee.
- He noted that it was implied in the agreement that "some special arrangement" would be made for the Nagas.
- With respect to Nagaland there is already a special arrangement.
- Article 371A of the Constitution makes this very clear and a special status has been accorded to them.
- The Nagas initially insisted on the unification of Naga inhabited areas - "no integration, no solution".
- But they have now reached an understanding with the government.
- Accordingly, the current boundaries of Northeastern states will not be touched.
- Besides the NSCN-IM, the government also held discussions with six other groups.
- The NSCN-K, which violated the ceasefire in 2015, was not part of the peace process.
- It was declared an unlawful association under The Unlawful Activities (Prevention) Act, 1967.

delay in finalising the accord

- All stakeholders other than the government appear keen on a conclusion.
- Many details of the 2015 agreement are concealed in mystery.
- The Naga groups have given up the demand for sovereignty and redrawing of boundaries.
- But the issues like a separate passport, flag and armed Naga battalions are still unresolved.

ENVIRONMENTAL AFFAIRS

SC Order on Nilgiris Elephant Corridor

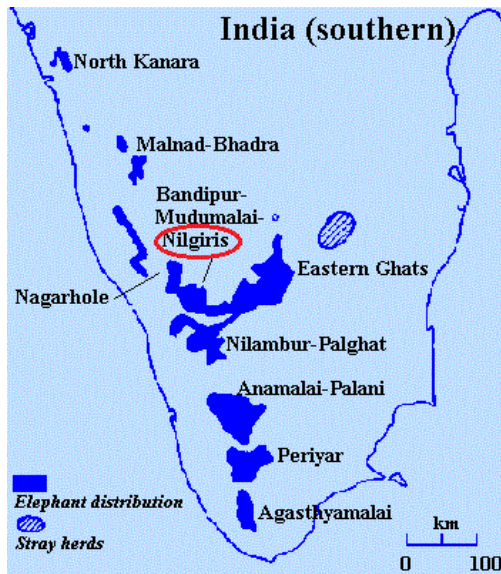
In News: Supreme Court recently directed the TN government to seal resorts and hotels in the Nilgiris elephant corridor.

Court's order

- The Tamil Nadu government has to seal or close down within 48 hours, 11 resorts and hotels.
- These were constructed on the elephant corridor of Nilgiris in violation of law.
- Owners of other resorts and hotels in the area were asked to place their documents of approval before the Collector within 24 hours.
- The Collector will verify the documents and check if a resort or hotel has been constructed with proper prior approval.
- If not, then the same should also be closed down within 48 hours.

status of elephant corridors

- As estimated, there are 101 elephant corridors, of which almost 70% are used regularly.
- Nearly three-quarters of the corridors are evenly divided among southern, central and northeastern forests.
- The rest are found in northwest Bengal and the northwestern region.
- Some of these passages are precariously narrow, at only a hundred metres wide.
- **Nilgiris** - There are an estimated 6,500 elephants in just the Brahmagiri-Nilgiris-Eastern Ghats ranges.
- Most of the resorts in the Nilgiris have come up right under the gaze of the Forest Department.
- The majority continue to function without the requisite permissions.
- This must be thoroughly investigated to check whether there was any wrongdoing.
- The grey area of mushrooming home-stay structures, which are just hotels on forest fringes, also deserves scrutiny.



Need for Such Corridors

- Forests that have turned into farms and unchecked tourism are blocking animals' paths.
- Animals are thus forced to seek alternative routes resulting in increased elephant-human conflict.
- Weak regulation of ecotourism is severely impacting important habitats.
- It particularly affects animals that have large home ranges, like elephants.
- The movement of elephants is essential to ensure that their populations are genetically viable.
- It also helps to regenerate forests on which other species, including tigers, depend.
- Elephant corridors are also crucial to reduce animal fatalities due to accidents and other reasons.
- So fragmentation of forests makes it all the more important to preserve migratory corridors.
- Ending human interference in the pathways of elephants is more a conservation imperative.
- The Supreme Court's order is thus a necessary step to restore the ecology of these spaces.

way forward

- Nearly 40% of elephant reserves are vulnerable, as they are not within protected parks and sanctuaries.
- Also, the migration corridors have no specific legal protection.
- Illegal structures in these pathways should be removed without delay.
- Efforts should be to expand elephant corridors, using the successful models within the country.
- This includes acquisition of lands using private funds and their transfer to the government.

Climate Change: The Hopes & Miseries

- **Context:**
- A recent scientific paper by "National Academy of Sciences" has deliberated on how the planet might move into a high temperature path with no return.
- Considering the risks, extraordinary changes are required to prevent the 'hot house earth' pathway that has been hypothesised.

earth's overall climatic context

- Standard life forms started evolving when earth reached a precariously equilibrated temperature is just right for ecosystems to flourish.
- Holocene Age, which began about 12,000 years ago, is the stable epoch during which Homo sapiens settled and developed agriculture and other technologies.
- These led to social and economic transformations through intensive use of resources, which have brought the world to this juncture.
- Human activity, supported by the burning of fossil fuels and deforestation, led to an increase in greenhouse gas (GHG) emissions.
- Consequently, global warming is presently on the rise, which is largely attributed to human activities alone.
- With humans acquiring the potential to dominantly influence earth's geography, the new epoch called "Anthropocene" is said to have commenced.

Approaching towards climatic trap

- The delicate equilibrium of the biosphere/earth system has to do with processes that amplify or dampen signals that are given out.
- For instance, melting of Greenland ice increases open waters that absorb more sunlight and then increase warming and cause further melting.
- This is a self-propelling cycle or a positive feedback loop.
- Contrastingly, with increase in CO₂, chemical-weathering increases and removes CO₂ from the atmosphere over time.
- This is a negative feedback loop that ensures stable equilibrium.
- When positive feedbacks become stronger than the negative ones, the system may change abruptly and get pushed out of equilibrium.
- The earth and its systems have shifted between alternative phases stable and unstable states throughout its geological history.
- Now, it appears we are approaching some critical thresholds where the stable earth that we've known all along is likely to slip into an unstable phase.

Key Highlights

- The paper identifies a threshold (2 degrees more than 1750 levels) beyond which the earth's systems will no longer be able to stabilise in the near future.
- It points out that technology trends in the next decade or two will determine the path of the "earth system" over the next thousands of years.
- Many indicators respond either continuously or show abrupt changes and in either of these, there is a tipping point beyond which there is no return.
- A geophysical tipping point is a threshold beyond which a system tends to move from one stable state to another rather than returning to equilibrium.
- This study indicates that once the threshold is crossed, it would lead to the tumbling of a series of tipping points, like a set of dominoes.
- Destruction of the Amazon forest due to wildfires, loss of permafrost covers, weakening of CO₂ absorption by the oceans, are among others that are feared.
- These would irrevocably disrupt ecosystems and societies and there would be a runaway climate change, taking us to a hothouse earth.

Some important themes

- The authors identify three clusters of tipping-linked cascades, out of human control, that could happen over time with rising temperatures.
- Atmospheric concentration of CO₂ (now over 400 ppm) has caused the global average temperatures to rise about a degree Celsius higher than 1750 levels.
- **Previously** - Current temperature levels were previously noted some 3-4 million years ago in the mid-Pliocene, when sea levels were 10-22 m higher.
- The paper states that, for the current phase to remain stable, a great deal of concerted effort in a remarkably short period is indispensable.
- But if the current trends go unabated, the projections are that the earth's temperature will cross the mid-Pliocene levels and reach mid-Miocene levels.
- Notably, in mid-Miocene (about 15-17 million years ago), CO₂ concentrations were 300-500 ppm and sea levels were 10-60 m higher than today.
- **Now** - Even if the Paris Agreement of 2015 is implemented fully and we managed to keep warming below 2° C or even 1.5° C, unavoidable risks exist.
- The cascade of feedbacks that pushes the earth into the hothouse path is difficult to assess and estimate, which calls for serious brainstorming.
- Sustained action to secure "earth systems" and the capacity building to adapt to a warmer world are indispensable in this scenario.
- Global emissions have not reached a plateau yet, reportedly rose by 1.4% last year, which is a serious concern.

Way Forward

- Increasing contributions from renewable sources and improvements in energy efficiencies would be a start but will not be sufficient.
- There should instead be major changes in technological innovation, behaviour, values and governance as this is an unprecedented challenge for humanity.
- Notably, modifying the energy balance would be needed alongside developing ways for people to adapt to living in a warmer world.
- Deep cuts in GHG emissions, increasing carbon sinks, removing atmospheric CO₂ and even deflecting solar radiation could help in reducing temperatures.

Holocene Epoch

- The Holocene Epoch is the current period of geologic time.
- It refers to the last 11,700 years of the Earth's history, the time since the end of the last major glacial epoch, or "ice age."
- Another term that is sometimes used is the Anthropocene Epoch or "The Age of Man".
- The International Commission on Stratigraphy (ICS) had divided this Epoch in to three ages – Greenlandian, Northgrippian and Meghalayan which began at 11,700 year, 8200 year and 4200 year points.
- There are controversies over this newly designated geological age, though the stratification by ICS is official.

International Commission on Stratigraphy (ICS)

- ICS is a body of geological timekeepers and is the largest and oldest constituent scientific body in the International Union of Geological Sciences (IUGS).
- Its primary objective is to precisely define global units (systems, series, and stages) which are basic for the units (periods, epochs and age) of the International Geological Time Scale.
- It sets global standards for the fundamental scale for expressing the history of the Earth.

Coastal Conservation Measures

In News: National Centre for Coastal Research (NCCR) has found that nearly one-third of the country's coastline is severely eroded.

Key findings of NCCR

- Over 234 square kilometres of Indian land has already been lost and more would vanish if erosion continues unrestrained.
- The problem is more formidable on the eastern coast because of frequent and relatively stronger cyclonic activity in the Bay of Bengal than on the western coast though the latter is also not fully immune to it.
- West Bengal is the most vulnerable state, with 63 per cent of its shoreline affected by erosion, followed by Puducherry (57 per cent), Kerala (45 per cent) and Tamil Nadu (41 per cent).

Reasons behind the Erosion

- Climate change-driven rise in sea level and increased intensity of ocean storms are among the most significant reasons for coastal erosion.
- Human activity closer to the shoreline, such as construction, dredging, quarrying and sand mining, is exacerbating the menace.
- In its natural state, this eco-system has a sobering influence on saline winds, cyclones, sea waves and incursion of seawater into underground aquifers.
- Though the coastal zone regulations, amended from time to time, are meant to preserve the seashore yet their implementation has been below par.

Concerns with Government Measures

- Union government intends to dilute these norms by bringing a new Coastal Regulation Zone Notification, 2018.
- Under this notification, even some of the fragile coastal areas are mooted to be opened up for tourism and other purposes by simplifying the project clearance procedures and giving greater say to states to manage the seaside tracts.
- Environmentalists feel that this would impair the ecology of the coastal belts and might aggravate sea erosion.
- The changes mooted in the land use of the coastal regulation zone-I and zone-II, for instance, can be a case in point.
- The zone-I comprises ecologically the most sensitive areas, which are currently marked "off-limit" for tourism and infrastructure.
- But the draft notification allows this zone to be used for nature trails and eco-tourism, though with the state government's consent.
- Similarly, coastal zone-II, comprising relatively undisturbed areas close to the shoreline, which has a "no development" belt of 200 metres, is proposed to be redrawn to restrict the no-development strip to merely 50 metres.

Measures needs to be taken

- Instead of relaxations government should concentrate on taking anti-erosion measures such as creating wave-breakers and raising vegetative protection belts of the kind successfully tried out in the tsunami-hit areas.
- The most endangered regions should, at least, be effectively shielded against any kind of potentially erosive activity.

- The seashore needs special care because it harbours valuable mangroves, seaweeds, coral reefs, and other kinds of marine biodiversity, which serve as a source of raw material for several industries, notably pharmaceutical and cosmetic units.
- This belt, moreover, is ecologically highly sensitive because of the constant interaction of marine and territorial ecosystems and, therefore, needs cautious handling.

Gadgil Panel Report and Kerala Floods

- **Context:** The recent floods of catastrophic dimensions have ravaged the state of Kerala.
- This has proved the rejection of Gadgil panel report to be a costly error for people and environment.

Gadgil Panel

- About 8 years ago, the Centre constituted the Western Ghats Ecology Expert Panel (WGEEP).
- It is a 14-member panel under the chairmanship of noted ecologist Madhav Gadgil.
- It was tasked to look into measures to arrest the ecological devastation from human activities in the Western Ghats.
- The 1600-km-long mountain range of Western Ghats is a fragile ecosystem.
- It is regarded as one of the eight 'hottest' biodiversity hotspots in the world.
- Kerala accounts for nearly 18% of the biodiversity-rich Western Ghats.
- The Gadgil panel submitted its report in 2011.

Key recommendations

- The Gadgil Committee divided the Western Ghats into three ecologically sensitive zones (ESZ).
- These are the highest (ESZ1), high (ESZ2) and moderate sensitivity (ESZ3) zones.
- This is in addition to the Protected Areas managed under acts such as the Wildlife Protection Act.
- It suggested that ESZ1 and ESZ2 would be largely 'no-gone' zones.
- So mining, polluting industries as well as large-scale development activities, including new railway lines are restricted.
- It also objected to new dams, thermal power stations or massive windmill farms or new townships in ESZ1.
- The panel however gave importance to the local communities and gram sabhas.
- They were given a larger say in deciding on matters relating to the ecology of these regions.
- It also called for
 - stricter regulation on tourism
 - phasing out of plastics and chemical fertilisers
 - a ban on diversion of forest land into non-forest applications
 - a ban on conversion of public lands into private lands

Rejection of the Report

- The Gadgil panel report was rejected by the then Union Environment Minister.
- The report was also unacceptable to any of the six Western Ghats States.
- These included Kerala, Karnataka, Tamil Nadu, Goa, Maharashtra and Gujarat as well as Pondicherry (UT).
- A year later, the government appointed a new committee under the chairmanship of K Kasturirangan. It was tasked to "examine" the WGEEP report.
- The Kasturirangan committee did away with the graded approach in terms of ecological sensitivity.
- It rather divided the Western Ghats into cultural lands (where there are currently human settlements) and natural lands.
- It recommended declaring cultural lands into ecologically sensitive area (ESA).
- This spanned around 60,000 sq-km or 37% of the total area.
- Recently, the Environment Ministry notified an area of around 56,000 sq km in the Western Ghats as ESA.
- In Kerala, the Kasturirangan committee had proposed an area of 13,000 sq km as ESA.
- But under pressure from the Kerala government, the notified area was brought down to less than 10,000 sq km.

Argument for rejection

- The Gadgil panel faced stiff resistance from all political parties, particularly in Kerala. It was primarily because of the involvement of private land.
- A large part of the ecologically sensitive zones belonged to private citizens.
- Attempts to introduce social control over the use of private land have often been challenged.
- The restrictions may not have much of an impact on people.

- But they are often instigated, by groups with vested interests, to oppose such moves.
- Popular resistance thus increases the political considerations in implementing such regulations.

Implications

- Nearly 40% of the granite quarries in Kerala in 2014-15 were located in ecologically sensitive areas.
- Significantly, a quarter of them were in the Gadgil committee-earmarked extremely sensitive ESZ1.
- These are notably some of the regions which have been devastated by the recent floods.
- The present disaster caused by heavy rainfall in Kerala could not have been completely avoided.
- But its severity could have significantly been reduced, if not for the rejection of WGEEP's proposed zoning.
- If the measures to protect the fragile environment were in place, man-made factors would not have worsened the impact.
- Development in the State in the last several years had materially compromised its ability to deal with a disaster of this proportion.

Way forward

- The Western Ghats States need to reconsider their stand in view of the recent calamity.
- The "environment vs development and livelihoods" debate should not be used to shield vested interests.
- A different governance regime, as suggested by the Gadgil panel, may be required to administer the Western Ghats.
- However, Kasturirangan panel's observation that results are better achieved through incentives than policing is valid.
- Indeed, the challenge is to set up decentralised, participatory institutions to manage hilly regions and river basins.
- The Centre should urge the States to accept the best in both the reports.
- It should not entertain any further reduction of ecologically sensitive areas, for nature's and hence people's sake.

Kaziranga and Brahmaputra Floods

Context: While on one side Kerala is devastated by floods, here is why floods are crucial and beneficial for the Kaziranga national park.

Significance of Brahmaputra for Kaziranga

- Kaziranga National Park is a 117-year-old park and a UNESCO World Heritage Site since 1985.
- Every year, the Brahmaputra takes away portions of land from the Park.
- Resultantly, on paper the park is 1,030 sq km in area, but in reality it is 884 sq km.
- It also continues to shrink year after year.
- It affects mostly hog deer, swamp deer, wild boar and other few animals.
- These are those that fail to reach higher ground in time after floods.
- Despite the above, Brahmaputra contributes more to, than harms, the wildlife in the park.
- It gives more to the habitat of the world's largest population of one-horned rhinos.
- The unique biodiversity of Kaziranga is rejuvenated by a dynamic system that connects the Brahmaputra with its alluvial floodplains.
- But this year, the park has not been inundated, causing concerns for the park authorities.



Flood an opportunity for Assam

- Floods have not been a “problem” as such for Assam a century back.
- For centuries, the region relied on the annual flooding and recession of the Brahmaputra and its tributaries.
- The productivity of its agriculture and other non-farm activities centred on the events of flood as it sustained the rural livelihoods.
- Floods naturally made the lands fertile and people could earn a livelihood with little labour.
- Even today, bamboo fishing nets and traps on water bodies and submerged agricultural lands during the monsoons emphasize the significant role of floods in Assam.
- Also, Kaziranga’s annual rejuvenation by floods is essential for the landscape and its unique wildlife to survive.
- The unique biodiversity of Kaziranga is rejuvenated by a dynamic system that connects the Brahmaputra with its alluvial floodplains.

Effect on Kaziranga

- During floods, animals in Kaziranga flee to higher grounds within the park. These include 111 highlands built in the late 1990s.
- But when 70-80% of Kaziranga is under water, the animals usually flee to the hills of KarbiAnglong.
- This is located south of the park beyond a National Highway running along its edge.
- Speed of vehicles is regulated during floods, but some animals invariably get killed.
- Of greater worry is the destruction of the hills because of indiscriminate stone quarrying.
- Some of the major quarries are on animal corridors and thus affect their movement.
- Quarrying has increased, and extracted materials have been dumped at sites adjoining the park.
- So if floods happen, Kaziranga’s animals could find their escape route blocked or altered.
- Hence, while floods are good for the park, it needs interventions to make them really beneficial for environment and ecology.

Present Concerns

- The perception of floods as a “problem” in Assam is a 20th century phenomenon.
- **Economy** - British colonials viewed the low-lying areas of the floodplains of the Brahmaputra as a potential source of revenue.
- Also, the demand for new lands to meet the growing requirements of **Bengal’s jute industry** led to the migrated east Bengali peasants’ settlement in lowlands of Assam.
- Floods began to cause damage to the thriving jute cultivation as a result of which **flood control** started appearing on the policy agenda.
- **Embankments** - The Assam **earthquake** of 1950 raised the bed of the Brahmaputra.
- Resultantly, floods began to threaten the built environment of commercially important **cities**.
- As a measure of flood control and protecting these urban settlements, **embankments** were built in huge numbers.
- Consequently, the **confinement of the river flow** led to higher water levels and increased hydraulic pressure during the monsoon.
- Bank erosion, **embankment failures and breaches** now have become major causes of flood devastation in Assam.

Way forward

- Assam's case presents a picture of how a natural event turns into a disaster with human intervention.
- Thus defining the problem in relation to its past is essential to respond appropriately.
- Assam's rivers are an opportunity for its riverine ecosystem, its people and wildlife.
- Government's remedial measures and policy-making should consider not just deciding but also knowing the uniqueness of the region and problem of flooding.

Reasons for Intense Rainfall in India

- NASA using its satellite data has provided an estimate of the intense rainfall that affected India from August 13 to 20.
- The first band extends across the northern, western and eastern part of peninsula which is associated with the general monsoon circulation.
- The second band is closely aligned with the southwest coast of India and the Western Ghats.
- It appeared more concentrated and intense due to an area of low pressure embedded within the general monsoon trough.
- Another contributing factor to the heavy rains in the second band is the Western Ghats.
- Western Ghats along the West Coast of India intercept the moisture-laden air drawn from the warm waters of the Northern Indian ocean and the Arabian Sea as part of the southwest monsoon circulation.
- **Global Precipitation Measurement** – It is a joint mission of Japanese Space Agency and NASA to make frequent observation of Earth's precipitation.

BIO/ HEALTH ISSUES

Relies on Wolbachia to control dengue

In News:

- Relies on Wolbachia to control dengue the project was launched in Paderu in Visakhapatnam.
- The Wolbachia controls the multiplication of the virus in its host — Aedesaegypti, which is primarily responsible for the cause of dengue fevers.
- Wolbachia is natural bacteria present in up to 60% of insect species, including some mosquitoes.

Dengue and chikungunya.

- It is one of the world's most common parasitic microbes and the most common reproductive parasite in the biosphere.
- Research has shown that when introduced into the Aedesaegyptimosquito, Wolbachia can help to reduce the transmission of these viruses to people.
- Mosquitoes with Wolbachia have a reduced ability to transmit viruses to people, decreasing the risk of Zika, dengue and chikungunya outbreaks.
- India and several countries are carrying out experiments to look into the possibility of breeding Wolbachia in Aedesaegypti.

Wolbachia

- Wolbachia is a tiny bacterium that is present in 60% of all species of insects, including several mosquito species.
- But the bacterium is not usually in the Aedesaegypti mosquito, which is primarily responsible for transmitting dengue, chikungunya and Zika.
- It is one of the world's most common parasitic microbes and the most common reproductive parasite in the biosphere.
- If this bacterium is introduced in mosquitoes, it could stop disease-spreading viruses from replicating, growing and spreading the diseases.
- India and several countries are carrying out experiments to look in to the possibility of breeding Wolbachia in Aedesaegypti.
- The experiment has proved remarkably effective in a small town in Australia, preventing fresh outbreaks of dengue.
- At present, large-scale trials are under way in Brazil, Colombia and Indonesia.

DecodingWheat Genome

In News: Team of international researchers including 18 Indian scientists for first time have decoded wheat genome.

- In this research, DNA sequence of bread wheat was successfully ordered and it represents highest quality genome sequence generated to date for such wheat variety.

Key Facts

- The research conducted by more than 200 scientists from 73 research institutions in 20 countries.
- The reference genome decoded covers 94% (14.5 Gb) of entire wheat genome.
- Team of 18 Indian scientists contributed in decoding of Chromosome 2A of wheat genome.
- This project was manically supported by Department of Biotechnology, Ministry of Science and Technology.

Significance

- The research shows that bread wheat has complex hexaploid genome which is 40 times larger than that of rice genome and 5 times larger than human genome.
- Information generated by decoded wheat genome will help to identify genes controlling complex agronomic traits such as yield, grain quality, resistance to diseases and pests as well as tolerance to drought, heat, water logging and salinity.
- The availability of high quality reference genome will accelerate breeding of climate resilient wheat varieties to feed ever-increasing population and help address global food security in decades to come.

World Mosquito Day:

- The World Mosquito Day is observed every year on August 20 to raise awareness about the causes of malaria.
- The observance of the day seeks to created awareness to prevent and also to fundraise for research into the cure of malaria.
- World Mosquito Day also marks ground breaking discovery of British doctor, Sir Ronald Ross when he had identified link between mosquitoes and malaria way back in in 1897.
- He had found that female Anopheles mosquitoes transmit malaria between humans.
- This discovery had laid foundations for scientists across world to better understand the deadly role of mosquitoes in disease transmission and come up with effective innovative interventions.
- Mosquitoes are small, midge-like flies that constitute the family Culicidae.
- There are over 3,500 species of mosquitoes have already been described.
- They are generally divided into two subfamilies, Anophelinae and Culicinae which in turn comprise some 43 genera.
- Female mosquitoes are ecto-parasites, whose tube-like mouthparts (called a proboscis) pierce hosts' skin to Share consumes blood for its own survival.
- Many species of mosquitoes are vectors of diseases.
- In passing from host to host, some transmit extremely harmful infections such as malaria, yellow fever, Chikungunya, West Nile virus, dengue fever, lariasis, Zika virus and other arboviruses.
- Mosquitoes are most deadly animal in the world, as around 6 million deaths every decade occur due to vector borne diseases transmitted by it.

'State can stop voluntary retirement of doctors'

In News: The State can stop government doctors from taking voluntary retirement in public interest, the Supreme Court has ruled.

Court's Directive

- The fundamental right to retire is not above the right to save lives in a country where government hospitals cater to the poorest.
- "The concept of public interest can also be invoked by the government when voluntary retirement sought by an employee will be against public interest."
- The court said public health was suffering from a scarcity of doctors.
- Qualified doctors did not join the public service, and even if they did so, they chose voluntary retirement and went into lucrative private practice.
- The State governments had an obligation "to make an endeavour under Article 47 to look after the provisions for health and nutrition."
- The doctors, as citizens, had certain fundamental duties under Article 51(A) towards their fellow citizens.
- The right to practise a profession under Article 19(1)(g) was subject to the interest of the general public, the court said.
- The ruling is based on an appeal by the Uttar Pradesh government against the Allahabad High Court's decision to allow Dr.Achal Singh, to voluntarily retire with effect from March 31, 2017.
- Though the High Court allowed Ms. Singh to retire, it rued the way government doctors were seeking voluntary retirement almost every day in the State.

- The High Court said the government healthcare sector needed senior doctors as they were “absolutely necessary to run the medical services which are part and parcel of the right to life itself.”

Genetically Modified Mosquitoes

In News: The Department of Biotechnology (DBT) is hesitant to permit field trials to release GM mosquitoes to tackle certain diseases.

Initiative

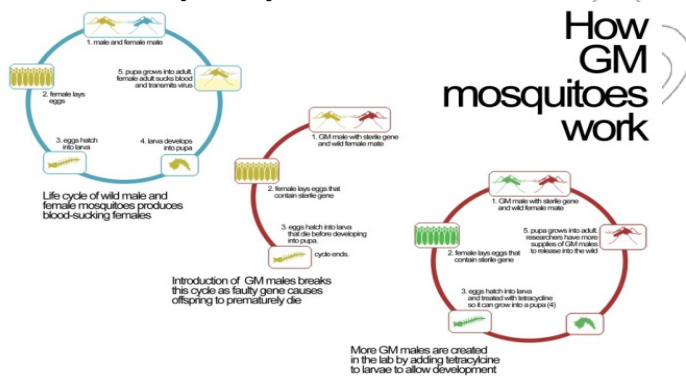
- Aedes aegypti mosquito is the carrier of diseases such as Zika, dengue and chikungunya.
- A new initiative thus aims at reducing the population of Aedes aegypti mosquito.
- It comes from the Mumbai-based company, Gangabishan Bhikulal Investment and Trading Limited (GBIT).

new gene

- Diseases such as Zika, dengue and chikungunya are transmitted when an infected, pregnant female mosquito bites somebody.
- Males do not bite and are, therefore, harmless.
- So GBIT wants to introduce a new Genetically Modified (GM) male Aedes aegypti mosquito.
- This GM insect has been bred by Oxitec, an R&D biotech company with roots in the University of Oxford.
- Oxitec has bio-engineered a *transgenic male Aedes aegypti mosquito*.
- This carries a *new gene fatal only to female mosquitoes*.

What does it do?

- The idea is to release a large number of such GM male mosquitoes into the trial zone.
- These will then breed with normal females in the wild.
- In the next generation, only the males would survive and these would breed again, with normal females.
- After a few generations, the female population will be drastically reduced.
- Eventually this cycle will result in a reduction of the entire mosquito population.



Justification

- The life cycle of a mosquito is only around two-three weeks.
- So the effects of the trial should be apparent in a few months.
- Transgenic males do not bite and the modified genes are said to be harmless to humans.
- The so-called “Friendly Aedes” project launched “closed cage” trials at the Oxitec facility in Maharashtra.
- Trials have been launched in Malaysia, Brazil, and Florida as well.
- Given these, permission has now been sought for open field trials in India.

DBT's Concerns

- Indian policy has been very cautious about allowing the genetically modified technologies.
- DBT scientists fear that there may be unknown hazards associated with large scale trials.
- It is thus feared that it could result in harmful consequences to the environment or ecology.
- Notably, the Aedes aegypti is part of the food chain.
- During its life cycle, it is consumed by fishes.
- Also, during its early aquatic phase, it is consumed by frogs and then by birds, lizards and spiders.
- A drastic reduction in the mosquito population could thus impact prey species.
- This could also potentially result in ecological collapse.

- There is also a possibility that the engineered genes could directly harm the species that consume mosquitoes.
- More research may be required to ensure that there are no unforeseen consequences.

Genetic Disorders

- The Centre has prepared a draft policy proposing compulsory genetic screening of all pregnant women to prevent inherited disorders such as thalassemia and sickle cell anaemia.
- Thalassemia and sickle cell anaemia are variants of Haemoglobinopathies.
- Hemoglobinopathy is a kind of genetic defect that results in abnormal structure of one of the globin chains of the haemoglobin molecule.
- Thalassemia usually results in underproduction of normal globin proteins, often through mutations in regulatory genes.
- The abnormality results in improper oxygen transport and destruction of red blood cells.
- It has wide-ranging effects on the human body like iron overload, bone deformities and in severe cases can cause heart diseases.
- The disease has no cure and people living with thalassemia require regular blood transfusions as an effective measure to prolong life.

TECHNOLOGICAL AFFAIRS

Probing for Water on Moon

Context:

- Scientists have found frozen water deposits in the Moon's polar region using data from the Chandrayaan-1 spacecraft.
- The ice deposited on the surface would possibly acts as a resource for future expeditions to explore Moon.
- NASA recently reconfirmed its 2009 assertion on the presence of water on Moon's surface by using new data from the M3 (Moon Mineralogy Mapper).
- Notably, the instrument had been sent to space on India's Chandrayan -I and has thus far provided ample evidence of water on Moon.

Recent news

- M3 was sent to space through India's Chandrayaan-1 spacecraft in 2008 and data from it has been subjected to rigorous study worldwide.
- Recently, NASA had stated that new data from its M3 instrument has reconfirmed presence of water (solid ice) in moon without any ambiguity.
- NASA's M3's could differentiate between solid, liquid and vapour ice, and its data indicated that solid ice was patchily deposited on the moon's surface.
- It collected data that not only picked up the reflective properties of water molecules but also the distinctiveness in reflections by different water states.
- Most of the newfound water ice lies in the shadows of craters near the poles, where the warmest temperatures never reach above -250°F (-150°C).
- Notably, because of the very small tilt of the Moon's rotation axis, sunlight never reaches these regions.

other studies confirmation

Confirmation

- In September 2009, an analytical study of data from NASA's "M3 instrument" on board ISRO's Chandrayan - I spacecraft was published.
- This announced the "unambiguous evidence" of presence of water across the lunar surface, which was done after reconfirmation by NASA's EXPOXI craft.
- Notably, NASA's EPOXI spacecraft passed by the Moon on its way to comet Hartley 2, and its data was corroborated with M3's.
- This was further verified by reassessing the data produced by a spectrometer aboard Cassini spacecraft in 1999.
- The data from ISRO's hyper-spectral imager, an instrument used for mapping minerals, also aboard Chandrayaan-1, supplemented the evidence.
- This is the final confirmation of water on Moon, something that had been hypothesised since the first lunar missions in the 1960s.

Subsequently

- Another of ISRO's instruments on Chandrayaan-1, the Moon Impact Probe (MIP), had produced compelling evidence of water on the Moon.
- Notably, MIP, a 35-kg cube-shaped instrument with the Tricolour on all sides, is the first Indian object to land on the Moon.

- After 2009, several studies have pointed to the presence of water, in different forms although most of these have used the same data sets as used in 2009.
- In August 2013, scientists looked at the same M3 data and detected magmatic water (that originates within the Moon's interior), on the lunar surface.

water distribution on the lunar surface

- While water molecules were found mostly in the polar regions of the Moon, a 2017 study showed that water was present across the lunar surface.
- Interestingly, the 2017 study also produced the first map of water distribution on the lunar surface using the M3 data set.
- In February 2018, NASA reported data from two lunar missions that presented fresh evidence of water being "widely distributed" across the surface.
- It said the water appeared to be present on the lunar surface abundantly, although it is not necessarily easily accessible.

Lithium-ion battery

- Scientists have recently developed novel lithium-ion batteries with components that prevent them from catching fire and causing injuries to users.
- Lithium-ion batteries are all about the movement of lithium ions.
- The ions move one way when the battery charges (when it's absorbing power); they move the opposite way when the battery discharges (when it's supplying power).
- Lithium ion batteries are more reliable than older technologies such as nickel-cadmium.
- Nickel batteries appear to become harder to charge unless they're discharged fully first, it is not the case with lithium ion batteries.
- Lithium-ion batteries don't contain cadmium, a toxic, heavy metal.
- It has high energy density i.e. it stores more energy per unit of weight when compare to other kind of batteries.
- But it still stores a hundred times less energy dense than gasoline (which contains 12,700 Wh/kg by mass or 8760 Wh/L volume).
- It is used in every modern cellphone, laptop, tablet, and most other rechargeable gadgets.

Wind-Sensing Satellite

In News:

- European Space Agency (ESA) has successfully launched wind-sensing satellite named Aeolus into orbit on board of Vega rocket from French Guyana.
- It is world's first wind sensing satellite dedicated to map Earth's wind on global scale in particular tropical winds which are very poorly mapped because of almost complete absence of direct observations.

Aeolus satellite

- The satellite is Aeolus named after guardian of wind in Greek mythology. It will be placed at altitude of 320km above the Earth.
- It is part of the Copernicus project, a joint initiative of European Union (EU) and European Space Agency (ESA) to track environmental damage and aid disaster relief operations.
- Aeolus satellite is equipped with single instrument Doppler wind lidar (named Aladin), which is advanced laser system is designed to accurately measure global wind patterns from space.
- It will probe lower layers of atmosphere, down to altitude of about 30 km to yield vertical profiles of wind and information on aerosols and clouds.

Significance

- Aeolus satellite will provide much-needed data to improve quality and accuracy of weather forecasting.
- It will help to improve understanding of working of atmosphere dynamics and contribute to climate change research.

Working of Doppler lidar

- It transmits short, powerful pulses of laser light toward Earth in ultraviolet (UV) spectrum.
- Particles in air (such as moisture, dust, gases) scatter small fraction of that light energy back to transceiver, where it is collected and recorded.
- The delay between outgoing pulse and so-called backscattered signal reveals wind's direction, speed and distance travelled.
- Data transmitted from Aeolus satellite will be downloaded at ground station in Svalbard, Norway.
- Aeolus space mission was fifth of ESA's planned Earth Explorer missions. Others already have completed or in operation.

- They have measured Earth's gravity and geomagnetic ends, soil moisture, ocean salinity and frozen expanses collectively known as cryosphere.

Insight Spacecraft

In News: InSight, short for Interior Exploration using Seismic Investigations, Geodesy and Heat Transport, is designed to study deep interiors of Mars.

- The lander is expected to rest on "Elysium Planitia", which is a flat-smooth plain just north of the equator in Mars.
- This mission is part of **NASA's Discovery Program** for highly focused science missions that ask critical questions in solar system science.
- It is the first outer space robotic explorer to study in-depth of Mars crust, mantle and core.
- It also measures tectonic activity and meteorite impacts on Mars.
- It will be a first test of miniaturized CubeSat technology at another planet, which researchers hope can offer new capabilities to future missions.
- It has recently crossed halfway in its enroute to Mars and expected to land in November.
- The instruments aboard the spacecraft include
 - i. A seismometer - used to detect quakes on Mars,
 - ii. A self-hammering probe - To measure the amount of heat escaping from the planet's interior.
 - iii. Cameras to take "selfie" of the mission's equipment.

OSIRIS-REx

- The Origins, Spectral Interpretation, Resource Identification, Security-Regolith Explorer (OSIRIS-REx) spacecraft was launched in 2016.
- Its target is Near-Earth Asteroid called Bennu.
- It will bring sample back to Earth for study by 2023.
- It will help scientists investigate how planets formed and how life began, as well as improve our understanding of asteroids that could impact Earth.
- It recently began its final approach towards Bennu.

Near-Earth Asteroid

- Asteroids, or minor planets, are small and often irregularly shaped celestial bodies.
- Most of them orbit the Sun in the so-called main asteroid belt, between the orbits of the planets Mars and Jupiter.
- An asteroid is coined a Near Earth Asteroid (NEA) when its trajectory brings it within 1.3 Astronomical Units (AU) from the Sun and hence within 0.3 AU of the Earth's orbit.
- NEA is also known Potentially Hazardous Asteroid.
- The largest known NEA is Ganymed.

ICESAT-2

- The Ice, Cloud and Land Elevation Satellite-2 (ICESat-2) satellite is scheduled to be launched by NASA in the month of September.
- It is a laser-armed satellite which measures changes in the heights of Earth's polar ice.
- It will measure the average annual elevation change of land ice covering Greenland and Antarctica to within the width of a pencil, capturing 60,000 measurements per second.
- Its Advanced Topographic Laser Altimeter System (ATLAS) measures height by timing how long it takes individual light photons to travel from the spacecraft to Earth and back.
- NASA started the ICESAT mission in the year 2003 and continued in 2009 with NASA's Operation IceBridge.
- ICESat-2 will also measure the height of ocean and land surfaces, including forests.

INSHORT

Cyclone Warning Centre

- Union Ministry of Earth Sciences is proposing to set up a Cyclone Warning Centre in Thiruvananthapuram.
- At present, IMD has cyclone warning centres only at Chennai, Vishakhapatnam, Bhubaneswar, Kolkata, Ahmedabad and Mumbai.
- The newly proposed centre will cater to the needs of Kerala and Karnataka with rising incidents of tropical cyclones and extreme weather events in the region.

Hurricane Lane

- Lane is a category 5 hurricane which is currently heading towards Hawaiian Islands in Pacific Ocean.
- The winds of the hurricane are expected to reach speed above 157 miles per hour causing catastrophic damages in the island.
- The Saffir–Simpson Hurricane Wind Scale (SSHWS) classifies hurricanes in western hemisphere into 5 categories by the intensities of their winds.
- The wind scale is used only to describe hurricanes forming in the Atlantic Ocean and northern Pacific Ocean east of the International Date Line.

Category	Wind speed (Miles Per Hour)
I	74-95 mph; Dangerous winds with no significant structural damage to most well-constructed permanent structures.
II	96-110 mph; Extremely dangerous winds will cause extensive damage.
III	111-129 mph; Category 3 and higher are described as major hurricanes.
IV	130-156 mph; It tends to cause more structural damage.
V	>157 mph; Highest category in the scale cause more catastrophic damage.

National Logistics Portal

- The portal is being developed by the Ministry of Commerce and Industry.
- It is a digital platform to bring all stakeholders in the logistics sector on board to cut down transaction cost and time for businesses.
- It will act as a single window online market place for trade.
- Stakeholders like traders, manufacturers, logistics service providers, infrastructure providers, financial services, government departments and groups and associations will all be on one platform.
- There are four main components of the portal - logistics e-market place, logistics certification platform, integrated regulatory platform and banking and financial services platform.
- The portal is developed to achieve the government's target of reducing the logistics cost from the present 14% of GDP to less than 10% by 2022.

International Buddhist Conclave 2018

- The 6th International Buddhist conclave was recently inaugurated in New Delhi by the President.
- The conclave aims to showcase the Buddhist heritage in India and boost tourism in the country.
- Delegates from 29 countries are participating in the conclave.
- It has been organised by the Ministry of Tourism in collaboration with State Governments of Maharashtra, Bihar and Uttar Pradesh.
- The conclave is going to be held in New Delhi, Ajanta (Maharashtra).
- Site visits to Rajgir, Nalanda and Bodhgaya (Bihar) and Sarnath (Uttar Pradesh) will also be conducted.
- The earlier conclaves were held biennially in Bodhgaya &
 1. New Delhi in 2004
 2. Nalanda in 2010
 3. Varanasi in 2012 and 2014
 4. Sarnath and Varanasi in 2016.

National Mission for Manuscripts

- National Mission for Manuscripts (NMM) is developing an app to make 3 lakhs manuscripts online accessible.
- NMM was set up in 2003 by the Ministry of Tourism and Culture to identify, document, conserve, digitise and publish Indian manuscripts.
- A manuscript is a handwritten composition on paper, bark, cloth, metal, palm leaf or any other material dating back at least seventy-five years that has significant scientific, historical or aesthetic value.
- NMM is working towards fulfilling its motto, 'conserving the past for the future'.
- India possesses an estimate of 10 million manuscripts, probably the largest collection in the world, which covers a variety of themes, textures and aesthetics, scripts, languages, calligraphies, illuminations and illustrations.

Biodiversity Heritage Sites

- The Tamil Nadu State Biodiversity Board has initiated steps to identify and declare Biodiversity Heritage Sites (BHS).
- BHS are well defined areas that are unique, ecologically fragile ecosystems.
- Under Biological Diversity Act, 2002 (BDA), the State Government in consultation with local bodies may notify in the official gazette, areas of biodiversity importance as Biodiversity Heritage Sites (BHS).
- The State Government in consultation with the Central Government may frame rules for the management and conservation of BHS.
- The National Biodiversity Authority (NBA) issues the guidelines for selection and management of the BHS.
- It covers terrestrial, coastal and inland waters and, marine ecosystems having rich biodiversity.
- Ameenpurlake in Telangana is the first waterbody in the country to be declared as a BHS.

5G Panel

- A steering committee headed by Paulraj was formed by the government last year to make fifth-generation (5G) telecommunication services successful in India.
- Its mandate is to formulate a road map for 5G services in India.
- The committee has revealed that the advent of next-generation wireless services may unleash USD 1 trillion economic opportunity for the country.
- Under the spectrum policy, the committee has suggested that India's spectrum allocation for public wireless services should be enhanced significantly.
- It has also asked for setting up a Standing Committee with five-year term to advise on building spectrum technology infrastructure.
- While the US is likely to deploy 5G services later this year, or in the first quarter of 2019, the India rollout may begin by 2020.

Bond-i

- Bond-i, an acronym standing for Blockchain Offered New Debt Instrument is the world's first public bond created and managed using only blockchain.
- It is launched by World Bank and the Commonwealth Bank of Australia is the sole manager of the deal.
- The total worth of the bond is 100 million Australian Dollars.
- It is viewed as an initial step in moving bond sales away from manual processes towards faster and cheaper automation.
- World Bank's bonds hold an AAA rating, creating a new bond markets and also engineers new methods to sell and trade securities.
- Blockchain technology refers to the distributed ledger technology that securely records all transactions made on the chain.
- This can help simplify raising capital and trading securities, improve operational efficiencies and enhance regulatory oversight,

3D Printed Reef

- World's largest 3D-printed reef was installed in Maldives to help save corals.
- The artificial reef was developed using computer modelling and a 3D printer at a lab in Melbourne, Australia,.
- It was designed to resemble reef structures typically found in the Maldives.
- It aims to help coral reefs survive the ravages of climate change and warming waters.
- 3D printing technology offers a new way of saving the corals to fight with global warming, bleaching and environmental pollution.

PoshanMaah

- PoshanMaah (National Nutrition Month) is being celebrated in the month of September as part of Jan Andolan under POSHAN Abhiyaan.
- PM's Overarching Scheme for Holistic Nourishment (POSHAN) Abhiyanstrive to reduce the level of stunting, under-nutrition, anemia and low birth weight babies.
- It targets to reduce stunting, undernutrition, anemia and reduce low birth weight by 2%, 2%, 3% and 2% per annum respectively.
- Mission 25 by 2022 – Although it targets to reduce stunting by 2%, Mission would strive to achieve reduction in Stunting from 38.4% (NFHS-4) to 25% by 2022.
- It may include the following nutrition strategies and interventions

- supplementary nutrition,
 - IYCF (Infant and Young Child Feeding) immunisation,
 - food fortification,
 - adolescent nutrition,
 - dietary diversification
 - maternal health
- Behaviour change communication is the key component of POSHAN Abhiyaan for converting it into Jan Andolan (People's movement).
 - All the States and districts will be covered in a phased manner i.e. 315 districts in 2017-18, 235 districts in 2018-19 and remaining districts in 2019-20.
 - It will be funded 50% by the Government of India and 50% by World Bank or other Multinational Development Banks.

Comprehensive Economic Cooperation Agreement

- India and Singapore have recently signed the Second Protocol amending the Comprehensive Economic Cooperation Agreement (CECA).
- The CECA was the first comprehensive agreement covering trade in goods, services and investments, which India had signed with any of its trading partners.
- CECA involve tariff reduction/elimination in a phased manner on listed or all items except the negative list and tariff rate quota (TRQ) items.
- Singapore is the second largest trading partner of India within ASEAN and India is the largest trading partner of Singapore in South Asia.

Galileo

- Galileo is a navigation satellite program being developed by the European Union as a rival to the U.S. Global Positioning System.
- It was commissioned in 2003 and is due for completion by 2020.
- It is a project of the European Commission and European space agency.
- It consists of 24 satellites in which 22 are currently in orbit and it is likely to reach 30 in 2021.
- It promises eventual real-time positioning to accuracy of one metre or less.
- The project has recently emerged as a flashpoint between Britain and the EU in the Brexit process.
- It is because of UK's access to sensitive security information could be restricted after Brexit.