

POLITY, GOVERNANCE AND PUBLIC POLICY

SC's Stay on NCLT order

In News: The Supreme Court stayed a National Company Law Tribunal (NCLT) order directing the government to take over the real estate firm Unitech.

Background

- Unitech failed to deliver homes to thousands who booked apartments and has over 16,000 undelivered units from nearly 70 projects.
- It has over Rs.6,000 crore debt and is yet to commence building flats for an estimated 19,000 homebuyers.
- The company has so far only paid a fraction of the money to customers who don't want to take possession of flats.
- The Supreme Court had earlier directed Unitech to fast-track delivery of flats or repays the money of homebuyers in its projects.
- The NCLT's order had come as a response to a plea of the Ministry of Corporate Affairs arguing that Unitech was a fit case for winding up.
- The NCLT had asked the existing directors not to function, and also not alienate their personal or company properties.
- The tribunal also permitted the government to nominate 10 directors to the Unitech board.
- However, the government was considering the interest of thousands of home buyers and small depositors; it wanted to take over the company management.
- Meanwhile, Unitech appealed against the tribunal's order in the Supreme Court.
- The government's move to take over the company without the court's permission has thus received condemnation.
- The Centre apologized for approaching the NCLT over a matter that was being dealt with by the top court.
- The Court has however stayed the NCLT order.

Provisions of the Companies Act, 2013

- Under the Companies Act, 2013, the central government may itself apply to the NCLT for an order.
- This is provided the central government is of the opinion that the affairs of the company are being conducted in a manner prejudicial to public interest.
- The act is to amend and consolidate laws relating to companies.
- It notably includes preventing mismanagement of companies through the 'National Company Law Tribunal' (NCLT).
- Any company member or the larger public can apply to the tribunal against the alleged harmful conduct of the company.
- The Union government too can apply to the NCLT and seek orders, if it feels there has been some serious misconduct.

Significance

- This is a sign that the government is serious about taking errant real estate firms to task.
- In earlier similar cases, the court has been unable to get the promoters to pay the original amount and may just get away by paying a fraction.
- Given the magnitude of the problem, especially the fact that banks are unable to recover loans of huge sums from builders, it is important that the government step in.
- However, the company claimed that the government move had set the clock back on the company's plans to deliver on its pending flats.

The Real Estate Act, 2016

- It is an Act of the Parliament of India to protect home-buyers as well as help boost investments in the real estate industry.
- The Act establishes **Real Estate Regulatory Authority (RERA)** in each state for regulation of the real estate sector and also acts as an adjudicating body for speedy dispute Redressal.
- Some of the key features of this act are:
- Compulsory registration of new and ongoing projects - All builders and developers has to register their new and ongoing projects with the Regulatory Authority.
- Once the registration is granted by the Regulatory Authority, the builder or developer has to publish entire details of their projects on the website of the Regulatory Authority.

- In case of non-compliance, registration granted by the Regulatory Authority has been suspended or revoked.
- Each state Regulatory Authority is supposed to appoint an officer who performs the functions of a judge.
- He/She will conduct an inquiry and pass an order once she has decided whether you are actually supposed to get the interest or money spent.
- If you are not satisfied with the decision of the officer, you can file an appeal before the Appellate Tribunal set up under this law.
- Every state is supposed to have one such appellate tribunal.

Way Forward

- The government must be empowered to address errant builders, in quite the same manner it has on other corporate defaulters.
- Home-buyers are demanding a status on a par with that of financial lenders.
- The Ministry of Housing and Urban Affairs has also suggested to the Ministry of Corporate Affairs that home-buyers be recognized not merely as financial creditors, but as primary secured creditors.
- The Housing Ministry wants the IBC amended such that, in the event of the assets of a company being liquidated, home-buyers would have the first right.
- However, caution has to be taken that other creditors are also not encouraged to demand a similar status.
- It is thus better the government takes charge of the assets.
- And comes up with a solution so as to take care of the interests of both the banks and the home-buyers.

Addressing NLP

Context

- Government litigation reportedly constitutes nearly half of all litigation in the Indian judiciary.
- A National Litigation Policy put in place to fix this needs some modifications.

Reasons for Clogging Cases

- Usually government agencies expect the judgment will be awarded in their favour irrespective of the cases which are before the Indian courts.
- If the government loses a case in a court, the default response will be simply appeal in a higher court.
- In cases of Multinational companies if they take the cases to international arbitrations and won, even after that government agencies again appeal such cases in local courts.
- In some challenging cases the decision on litigation goes to an individual officer or an expert, who is humanly impossible to award a right justice.

National Litigation Policy

- National Litigation Policy is formulated by the Ministry of Law and Justice of the Government of India.
- It aims to bring down the litigation from government agencies by making them more responsible in filing cases.
- It is based on the recognition that government and its various agencies are the predominant litigants in courts and tribunals in the country.
- The policy idealistically states that there should be greater accountability regarding governmental litigation, and mandates “suitable action” against officials violating this policy.
- It created “Empowered Committees” at the national and regional levels, apparently to regulate the implementation of the policy.

Issues with NLP

- Instead of being an analytical policy to address the causes of excessive government litigation, it appears to have been drafted on anecdotal notions of the problem, with no measurable outcomes or implementation mechanism.
- The text of the policy doesn't define the “suitable action”, or prescribe any method to conduct any disciplinary proceedings.
- There are ambiguity about the role and powers of empowered committees, resulting in lack of transparency in their functioning.

- It also lacks any form of impact assessment to evaluate actual impact on reducing government litigation.

Way Forward

- NLP revision needs to ensure certain critical features like enumerating the role of different functionaries and minimum standards for pursuing litigation must be listed out.
- Modifications need to be made to the national litigation policy and officers need to be penalised for needlessly litigating a case so, if the government loses a case in court.
- Various government departments will have to come up with rules, and instances, of what litigation is to be allowed and what is not.
- Thus the litigation policy must have a profound effect on how the government thinks about itself as a litigant, and can help curb the problem.

Criminalizing Talaq

Context: The proposed law on instant triple talaq misreads the SC's talaq judgment.

Cases in Talaq Pronouncements

- Most men have resorted to talaq-e-bidat, either in a fit of emotional rage, or out of a misunderstanding of Muslim law.
- **1st case** - When the pronouncement is in a fit of rage, men usually express regret within a short time as irrevocable divorce was never the intention.
- While the SC order helped in keeping marriages intact despite a pronouncement in such cases, the draft law seeks to stigmatise such mistakes.
- This might lead to eventual breakup of a marriage that wasn't headed there.
- **2nd case** - In the second case, men think that instant talaq irrevocably breaks the marriage due to their reliance on sectarian fatwas.
- Here, the fatwas derive the validity of talaq-e-bidat from the disputed legacy of Caliph Umar's rulings and its proponents oppose the SC ruling on talaq.
- Notably, instead of verifying the actuality of the Caliph's ruling, most Muslim theologians had held a blind faith in it for long.

Draft Law

- **Islamic View** - Islam while recognizing Talaq-e-bidat (triple Talaq), believes that its use is the commission of a sin.
- Notably, even before the SC judgment, All India Muslim Personal Law Board (AIMPLB) had proposed social boycott as punishment for resorting to it.
- This probably explains why most Muslim religious organisations have not opposed the current draft criminalising triple talaq.
- **The Confusion** - But the SC has already declared instant triple talaq illegal and hence triple talaq is being effective in annulling a Muslim marriage.
- While instant triple talaq as such holds no significance currently, making its pronouncement an offence would mean recognizing it as a marriage breaker.
- This would be contrary to the SC judgement and also in alignment with the AIMPLB's view of recognizing it while seeing it as a sin.

Criticism of Draft Law

- The Centre's has proposed a legislation to criminalize triple talaq (talaq-e-bidat), which is a way to instantly dissolve a marriage.
- This appears to be ill-conceived as it completely ignores the Supreme Court judgment that declared "triple talaq" futile and not integral part of Islam.
- Consequently, no Muslim marriage can be dissolved through instant triple talaq at present – thereby criminalizing it holds no ground.
- Notably, criminal jurisprudence states that no person shall be punished for an act that is not harmful to anyone.
- Hence, unless the husband physically/mentally harasses his wife by insisting that his talaq pronouncements have broken the marriage, there is no case.

Way Forward

- The right approach would be to launch a massive campaign to publicize the Supreme Court judgment on triple talaq.
- Also, stopping Muslim theologians from issuing misleading fatwas on talaq is needed.

Redrafted Bill on Passive Euthanasia

In News:

- The redrafted bill on euthanasia is released as the 'Management of Patients with Terminal Illness - Withdrawal of Medical Life Support Bill'.

Earlier Ruling and Recommendation

- Passive Euthanasia is the withdrawal of medical treatment and life support of a terminally-ill patient to facilitate (natural) death.
- The Supreme Court had recognized passive euthanasia for the first time in the 2011 in ArunaShanbaug case.
- Accordingly, withdrawal of life-sustaining treatment from patients not in a position to make an informed decision (incompetent case) is permitted.
- The SC further laid down comprehensive guidelines on passive euthanasia, which was to be followed until a law was enacted in this regard.
- Subsequently, government drafted the **Medical Treatment of Terminally Ill Patients [Protection of Patients and Medical Practitioners] Bill** earlier in the year.
- But, given some concerns regarding the possible misuse of its provisions, the SC suggested adequate changes to ensure proper safeguards.
- It even recommended a proper medical board examination of all cases of euthanasia.

About New Bill

- **Approval Procedure** - Hospitals have to set up **approval committees** for considering cases of passive euthanasia.
- These panels will decide on applications of "Living will" which is a written document by a "competent" terminally ill patient.
- This will allow them to explicitly state their desire against life-prolonging measures when recovery is not possible.
- For incompetent terminally ill patients, unanimous consent of near relatives has been suggested to apply for withdrawal of medical treatment.
- **Other Provisions** - Any distortion of facts before such panels may lead to a **maximum of 10 years in jail and a fine of up to Rs 1 crore.**
- The draft provides for pain reducing medication (palliative care) even after passive euthanasia is approved.
- It clearly stated that it did not encourage active euthanasia which is the acceleration of death by using lethal means.
- **Living Will** - Notably, the bill does not allow a legally competent person to take the same decision well in advance i.e. making a living will.
- The Bill declares advance medical directives and medical power-of-attorney as void and not binding on the attending medical practitioners.
- Hence, complications arise when a patient cannot make a competent decision in case of being in a coma or mentally challenged.
- The bill also provides for the protection of medical practitioners and care givers, by absolving them of guilt in acts of passive euthanasia.

Significance

- In the ArunaShanbaug case, the Supreme Court permitted passive euthanasia and laid down comprehensive guidelines.
- However, there are no proper legislations on this, prescribing legal provisions.
- So in the absence of legislation, doctors find it difficult to counsel the family members and fear the possible medico-legal consequences.
- Therefore, with a proper Living Will law in place, doctors can handle such cases easier.
- Also, hospitals can be expected to have a uniform policy with regard to such cases.

ECONOMIC AFFAIRS

Widening of Commodity Derivatives Segment

In News: SEBI has put forth proposals to allow mutual funds and portfolio managers to invest in commodity derivatives segment.

Commodity Derivatives

- **Derivatives** - Derivative is a contract between two or more parties.
- Its value is determined by the underlying asset.

- The most common underlying assets include stocks, bonds, commodities, currencies, interest rates and market indexes.
- **Commodity Derivatives** - It's a derivative contract with a commodity as the underlying asset.
- Producers who want to manage the risk of future price uncertainty for their commodities enter into commodity derivatives.
- In India, like a stock market NSE provides a platform to trade in different shares, the Multi Commodity Exchange (MCX) and National commodity derivative Exchange (NCDEX) facilitate for the commodities.
- MCX is known for the trading of Bullions metals (Gold, Silver, etc), Base Metals (Zinc, Aluminium, etc) and Energy (Crude Oil and Natural Gas).
- The NCDEX is known for trading in Derivative contract of agricultural produces.

Mutual Funds and Portfolio Managers

- **Mutual Fund** (MF) is an investment vehicle made up of a pool of moneys collected from public investors.
- The pooled money is used to buy other securities by professional money managers.
- They give small or individual investors access to professionally managed portfolios of equities, bonds and other securities.
- **Portfolio Manager** (PM) is a professional person or a group of people, usually experienced investors responsible for making investment decisions on behalf of individuals or institutions.
- The main difference between MFs and PMs is that in Mutual Funds, the investors' money is pooled and collectively invested, which is not the case with PMs.

SEBI's Recent Proposal

- As of now, only gold is a permissible commodity for institutional investors, and is allowed through exchange-traded funds (ETFs).
- SEBI had earlier attempted to increase the institutional participation in the commodity segment.
- E.g. It recently allowed category -III *Alternative Investment Funds* (AIFs) to participate in the commodity derivatives market.
- In line with this, allowing mutual funds and portfolio managers in the commodity derivatives segment aims at broadbasing the commodity derivative segment.
- SEBI's Commodity Derivatives Advisory Committee (CDAC) has also suggested opening up the market to both domestic and foreign institutional investors in a phased manner.

Benefits

- The Indian commodity derivatives market was lacking the desired liquidity and depth as it was running without any institutional participation.
- The current move fills this gap and hence brings in efficient price discovery and price risk management.
- There is also a huge surge in Mutual Funds in recent periods, indicative of widening base of investors.
- So allowing MFs and PMs in the commodities segment comes as an additional or alternative asset class for diversification.
- It is also in line with the series of liberalization measures in the past couple of years for investors to increase participation in domestic institutions.

Cautionary Steps to be taken

- **Risks** - SEBI has said that the overall risk adjusted return of the portfolio might improve.
- Nevertheless, adequate checks and balances will have to be put in place before implementation.
- **Investors' Money** - Commodities prices tend to fluctuate violently.
- Hence, Mutual funds, being custodians of investors' money, will need to be extra cautious while investing in them.
- SEBI has to ensure that scams like the one involving the National Spot Exchange Limited (NSEL) do not recur.
- **Level Paying** - Facilitating greater participation by retail investors and small commodity producers in this market is essential.
- **Regulation** - MFs and SEBI need to appreciate that commodity derivative and shares are totally dissimilar objects.
- They thus demand different expertise and skills for trading, as also for monitoring and effective regulation.

Alternative Investment Funds

- An alternative investment is an asset that is not one of the conventional investment types, such as stocks, bonds and cash.
- Alternative investments include private equity, hedge funds, managed futures, real estate, commodities and derivatives contracts.
- Most alternative investment assets are held by institutional investors or accredited, high-net-worth individuals because of the complex natures and limited regulations of the investments.

Governments plan on banking sector

In News: Union government is working with new reforms in Indian banking sector to address NPA-related issues.

Plans on Resolution of NPAs

- Union government has consideration in the resolution of NPAs and treatment accorded to entrepreneurs in industry.
- There are various diagnostics being analysed on a case-by-case basis on the reasons of rising NPAs.
- By determining whether NPAs are emerging because of malafide intentions or due to general economic slow-down, the treatment would differ accordingly.
- Investigating agencies are also mandated to hold the responsibility of the board of directors of banks, chartered accountants, auditors and legal experts associated with the industry where NPAs are rising.

Plan on PSBs Recapitalization

- Centre's recapitalisation plan envisaged few reforms; the reforms would be differentiated amongst public sector banks (PSBs).
- PSBs that have managed their balance sheet well will have front-loading of recapitalisation bonds.
- The other banks will receive government support based on their resolve to undertake reforms in a time-bound manner.
- These reforms will be measured in terms of capacity of banks to become "slim and trim" and follow better focused business strategies, including sale of non-core assets.
- The Government is also considering governance reforms for all PSBs, which aims to ensure that money is properly utilized to strengthen the balance sheet of PSBs.

Other Plans on Banking

- Finance commissions are set up regularly and a permanent fiscal body for setting GST rates has been established.
- The Government is also considering a permanent banking commission to address concerns.
- There are also plans for periodical consideration of well-represented banking committees to provide a strategic road map for reforms.

Revision of MDR

In News: RBI announced a revision of the MDR, which is set to come into effect from January 1, 2018.

Merchant Discount Rate

- Merchant discount rates (MDR), is the charge that a merchant has to pay to the bank concerned every time a consumer uses his debit card on the point-of-sales (PoS) machine.
- It compensates the bank issuing the card, the bank which puts up the swiping machine (Point-of-Sale or PoS terminal) and network providers such as Mastercard or Visa for their services.
- The charges are usually shared in a pre-agreed proportion between them.
- RBI specifies the maximum MDR charges that can be levied on every card transaction.
- As per RBI rules, the merchant must pay the MDR out of his earnings and cannot pass it on to the customer.
- Currently, MDR is 0.25 per cent for purchases below Rs 1,000 and 0.5 per cent for those between Rs 1,000 and Rs 2,000.
- As per the recent RBI notification, with effect from January 2018, small merchants will pay a maximum MDR of 0.40 per cent of the bill value and others will pay 0.90 per cent.
- RBI has also set a monetary cap at Rs. 200 per bill for small merchants and Rs. 1,000 for large ones.
- Small merchants are defined as those with a turnover of up to Rs.20 lakh in the previous year.

Need for this Revision

- 90% of the MDR margin is cornered by the bank issuing the debit card, enabling digital transactions does involve costs such as PoS machines, debit cards, and the transaction technology.
- A lower MDR would reduce the economic incentive for banks to provide such services.
- In fact, the RBI has argued that even this marginal increase in the MDR is not adequate to cover all the costs.
- Clearly, a lower MDR can only work when there is a big enough scale of such digital transactions.

Concerns with Revised Rates

- As of now, merchants are charged based on a consumer's transaction amount.
- According to the RBI's new scheme, the MDR will be levied on the basis of the turnover of the merchants, the key point of distinction being an annual turnover of Rs 20 lakh.
- Due to this even small-value transactions will turn out to be costly, and retailers would pass on the extra cost to customers, even though the MDR is not supposed to be paid by consumers.
- This change will provide a disincentive for consumers and merchants to transact digitally and hamper the increasing use of debit cards, especially in the rural segment.
- Another concern is the distribution of the MDR among the issuers, the acquirers, and the card networks.

Amendments to IBC and its Impact

Context: The government's recent amendments to the IBC have received a mixed response.

IBC

- **"Insolvency & Bankruptcy Code (IBC), 2016"** constituted a single window process for a time-bound settlement for corporate & individual loan defaults.
- Either the creditor (banks) or the loaner (defaulter) can initiate insolvency proceedings by submitting a plea to the adjudicating authority.
- The adjudicating authority for corporate insolvency proceeding is the "National Companies Law Tribunal (NCLT)".
- In the process, the defaulting company is either be sold to a potential buyer as a whole or it could get liquidated and have its assets auctioned.
- The earnings so obtained is then used to settle the creditor, which would most certainly involve accepting a big loss due to under-recovery.

About Recent Ordinance

- Initially, in IBC, a promoter could declare insolvency for his firm and then participate in the bidding process for the same and acquire it.
- This opened up the possibility of wilful default as the insolvency proceedings would help in getting a loan haircut (reduction).
- Hence recently, IBC was amended by the government through an ordinance to deter such wilful defaulters from bidding either directly or indirectly.
- Notably, the ordinance also excludes companies whose interest and charges are outstanding for a period of 1 year or more from the bidding process.
- The amendment mandates the appointment of a 'Resolution Professional (RP)' for every case, to do the background checks for all bidding applications.
- But some argue that disqualifying errant promoters from the bidding process will lead to further losses for banks.

Possible Outcomes

- **Positive** - Most loans that land up for in insolvency proceedings are likely to have already been restructured by the banks in the past.
- The fact that repayment has failed even after such restructuring, raise serious questions on the credit-worthiness of the loaners.
- Hence, barring promoters of such companies is only logical.
- Thus, the ordinance creates the scope for disqualifying an existing promoter or including a rank outsider into the bidding process.
- **Negative** - The Insolvency and Bankruptcy Board of India (IBBI) is the regulator, which was set up under the IBC.
- But several advisory committees of the IBBI, entrusted with corporate insolvency & liquidation, are chaired by several top corporate leaders.
- This could be tricky for the credibility of IBC and the recent ordinance may be misused to defeat the very objective of penalising the errant promoter.

- Banks will only lose more, if these designs help in side-tracking loan recovery and aid influential people to purchase distressed assets at low prices.

World Bank's Probe on Amaravati

In News: World Bank panel seeks 6 months to decide whether a probe is required or not in Amaravati plan.

Amravati

- Amravati, is the proposed capital of Andhra Pradesh, it is envisioned to be a city of world-class standards.
- The planned city is located on the southern banks of the Krishna River in Guntur district.
- The word "Amravati" derives its name from the historical Amravati Temple town, the ancient capital of the Telugu Rulers of the Satavahana dynasty
- The Andhra Pradesh Capital Region Development Authority (APCRDA) is the body which runs the project.
- The Land Pooling scheme was adopted by CRDA which is considering being the largest and the most successful of its kind in India.



Financing Mechanism for This Project

- The AP government is expecting \$300-million loan from the World Bank for Amaravati Sustainable Capital City Development.
- The total financing for the project is \$715 million, of which the World Bank lending is proposed to be \$300 million.
- This is through an IBRD (International Bank for Reconstruction and Development) investment project financing loan.
- The State government has so far pooled over 33,000 acres from farmers for construction of the new capital under different categories of agreements.
- The Bank's financing is planned to be used within the 217 sq km area designated for the development of Amravati Capital City.

About the Probe

- Farmers of the region complained to the World Bank in September this year, who alleged that they were forced to part with their land.
- They also claimed harm from a land pooling scheme (LPS) being implemented to assemble the land required for the city, as well as from other project activities.
- Due to this complaints World Bank inspection panel, had recommended a probe into the charges of forcible land pooling against the Andhra Pradesh government.
- It recommended an investigation into the alleged issues of harm and related potential noncompliance with bank policies, especially relating to involuntary resettlement.
- Now it has sought six months' time to decide if a probe is required or not.
- The decision deferred based on the discussion with panel and the proposed actions.

Practical constrains with anti-dumping duties

Context

- In the global trade scenario, dumping activity is seen as a potential threat, to address which WTO has a provision of Anti-dumping duties.
- However, practical constraints with anti-dumping duties diminish the global trade growth.

Dumping

- An export sale of a commodity at a price lower than the normal value (the price at which goods is ordinarily sold) prevailing in the exporting country is construed as dumping.
- A country can exercise trade remedial action against dumping only if dumping causes or has a threat of causing any adverse impact its domestic industry.

Anti-Dumping Agreement

- Anti-dumping Agreement (AD Agreement) provides for the right of contracting members to apply anti-dumping measures.
- This is to safeguard their domestic industry against the dumping and its injurious effect.
- By this, no country shall export a commodity to another WTO member country at a price that is lower than the price at which a similar commodity is traded in the exporting country.
- The purpose of the trade remedy action against dumping is to provide a level playing field to the domestic industry by imposing additional duty.

Working of Anti-dumping Duty

- A country impacted by unfair anti-dumping duties can get it resolved either through mutual consultation or through the mechanism of the dispute settlement body of the WTO.
- Anti-dumping investigation conducted by affected countries involves the process of “non-injurious price”.
- To do this the authorities call for costing information from the complainant.
- And undertakes detailed analysis of relevant factors of the costs involved.
- This allows the authority to compute the anti-dumping duty based on the cost data and in the manner it thinks appropriate.

Practical Constraints With This

- In order to disprove the assertion that dumping has harmed the importing economy, producers/exporters have an uphill task of convincing the customs authorities.
- They need to demonstrate that the export price is higher than the price at which they themselves sell the same products in their own domestic market.
- Due to this, many of the producers/exporters are unable to satisfy the investigating officials of the importing economy about levying either a nil or lower anti-dumping rate.
- Genuine competitive disadvantages should not be masked by the cloak of anti-dumping duties.
- Member countries of the WTO have the responsibility to exercise restraint in invoking the unfair anti-dumping provisions.

Refining the Oil Refining Sector

Context:

- World Energy Outlook Special Report on India highlights the rising oil demand in India.
- Given this and the stringent emission norms in place, it is essential to ensure a modern oil refining sector to be adaptive and competitive.

What is the need?

- **Demand** - According to International Energy Agency, India is moving to the centre stage of global energy markets.
- India is notably the world's third largest consumer of energy.
- With rising incomes and higher car ownership, the number of passenger cars in India is expected to multiply in the coming years.
- The expected sharp rise in demand for mobility could more than double the demand for refined products by 2040.
- **Trade** - However, India's **oil refining capacity is falling short** of meeting the rising demand for oil products, resulting in **huge exports**.
- India could become a net importer of oil products in the not-too-distant future.
- **Emissions** - Higher dependence on oil products for mobility needs logically mean increased transport emissions.
- This is a pressing issue for India where around 5 lakh people die prematurely every year due to poor air quality.

- **Besides**, India's Hydrocarbon Exploration Licensing Policy (HELP) alone will not be feasible to address its demands.

Government's Measures in Fuel Efficiency

- India has already introduced fuel-efficiency standards not only for cars but also for trucks.
- One of the most significant developments is the nationwide adoption of the Bharat Stage IV (BS IV) emission standards.
- This is the regulation for transportation fuels in India (equivalent to the Euro IV standards) effective from April 2017.
- It requires the sulphur content in gasoline and diesel to be no more than 50 parts per million (ppm).
- The Government plans to move to an even more stringent standard by 2020 by limiting sulphur content in transportation fuels to less than 10 ppm.
- To address the issue of increasing fossil fuel usage Indian government also plans to move to alternative fuels.

Concern

- Surging demand in domestic and export markets offers an attractive growth opportunity for Indian refineries.
- On the other hand, tightening of emission standards for transport fuels is becoming a challenge for capitalising on this opportunity.
- As, the successful implementation of better quality standards depends on the capability of domestic refineries to adapt to these.
- If domestic refineries cannot produce compliant fuels, moving to a tighter standard would result in more imports.

Way Forward

- Tightening emission standards for transport fuels is fast becoming an irreversible global trend.
- In this rapidly de-sulphureting world, those able to produce a better quality fuel stand to benefit by gaining market share in an increasingly competitive refining market.
- In this backdrop, India should ensure a modern refining sector with all the technical capabilities to produce high-quality fuels.
- The Government has to devise mechanisms to provide the required infrastructure for the refining sectors.
- The growth of India's refining industry and the country's sustainable future are therefore closely interlinked.

HELP

- The New Exploration Licensing Policy (NELP) has been in existence for 18 years. Over the years, various issues have arisen in NELP.
- NELP had **separate policies and licenses** for different hydrocarbons. Unconventional hydrocarbons (shale gas and shale oil) were unknown when NELP was framed.
- While exploring for one type of hydrocarbon, if a different one is found, it will need separate licensing, thus, adding further to the cost.
- The **Production Sharing Contracts (PSCs)** under NELP was based on the principle of "profit sharing".
- Under NELP **exploration was confined to blocks** which have been put on tender by the govt.
- To overcome these issues India has announced HELP, which offers single license to explore conventional and unconventional oil and gas resources.
- There will be a **uniform licensing system** which will cover all hydrocarbons, under a single license and policy framework.
- Contracts will be based on **'biddable revenue sharing'**. Bidders will be required to quote revenue share in their bids and this will be a key parameter for selecting the winning bid.
- An **'Open Acreage Licensing Policy'** will be implemented whereby a bidder may apply to the Government seeking exploration of any block not already covered by exploration.
- This will enable a faster coverage of the available geographical area.
- A concessional royalty regime will be implemented for deep water (5%) and ultra-deep water (2%) areas.
- In shallow water areas, the royalty rates shall be reduced from 10% to 7.5%.
- The **contractor will have freedom for pricing and marketing** of gas produced in the domestic market on arm's length basis.

- To safeguard the Government revenue, the Government's share of profit will be calculated based on the higher of prevailing international crude price or actual price.

IEA

- The International Energy Agency is an autonomous inter-governmental body based in Paris.
- It was founded in 1974 to help countries collectively respond to oil supply disruptions.
- IEA helps governments around the world provide energy access for all, reduce air pollution, and tackle the climate change crisis.
- It publishes the World Energy Outlook report.
- India is an associate member of IEA.

Nissan Dispute - Need for BIT revision

In News: The Japanese automaker Nissan has initiated international arbitration proceedings against India.

Background

- In 2010, Nissan and its partner Renault, a French carmaker, set up a manufacturing plant in Oragadam, Chennai and invested a huge sum.
- To further promote the investment, the state government of Tamil Nadu assured several fiscal incentives.
- This was in the form of investment promotion subsidy (IPS) and value-added tax (VAT) refunds.
- It is learnt that the state government had paid the IPS dues.
- But the dispute arose over VAT refund amounting to Rs 2,900 crore along with Rs 2,100 crore in damages, interest and other costs.
- Nissan is thus seeking a compensation of around Rs 5,000 crore.
- Having failed on several rounds of negotiations with the State and Union governments, Nissan has initiated international arbitration proceedings against the Indian government.
- The claim is initiated under the investment chapter of the India-Japan Comprehensive Economic Partnership Agreement (CEPA).

TN Government Respond

- **Double benefits** - The TN government asserts that the car manufacturer could claim 14.5% VAT refund only for car sales within Tamil Nadu.
- Thus, TN government has rejected Nissan's claim on the ground that the company was seeking VAT benefits for 'exported' cars as well.
- It has called this an attempt of claiming 'double benefits'.
- **Period** - Under the MoU signed between Renault-Nissan and TN government in February 2008, tax incentives are to be paid over a period of 21 years.
- But Nissan is trying to extract the subsidy in an accelerated fashion in less than 4 to 5 years.
- TN government raises concern that this could disrupt the government's financial reserves.

Challenges in Resolution

- **Tribunals** - The regulation of tax in international investment law is a highly contested issue.
- This is because various tribunals have adopted different interpretative approaches to fix the liability of a host state.
- **Anti-Arbitration** - With the rise of international arbitration, anti-arbitration injunctions are increasingly resorted to.
- These injunctions are sought to restrain the initiation or continuation of arbitration proceedings.
- In the Nissan case, the government of Tamil Nadu has approached the Madras High Court to restrain the CEPA arbitration.
- However, similar cases reveal that international arbitral tribunal exercised its jurisdiction irrespective of domestic courts' order.
- **Jurisdiction** - The claim relies on protections provided under an international agreement, the CEPA, and not on any domestic law.
- Moreover, it is the TN government which is a party to the anti-arbitration injunction proceeding and not the government of India.

Gaps in the Existing Policy

- In 2015, the Model Bilateral Investment Treaty (BIT) was promulgated in response to various investment claims initiated against India.
- However, most developed countries are hesitant to comply with new standards.

- This is because
 - the revised Model BIT discourages investors
 - specifies more regulatory risk by removing 'most favoured nation' clause
 - imposes a mandatory requirement of 'exhaustion of local remedies' for five years before resorting to an international forum for dispute resolution
- There were a series of investor-state disputes initiated under different investment protection agreements by various foreign investors in the recent period.
- Responding to this, India unilaterally terminated most BITs to which it was a Contracting Party.
- However, it is evidently becoming difficult for the country to avoid new disputes.

Way Forward

- International investment protection agreements play a key role in attracting foreign capital.
- Terminating BITs and the resultant absence of legal protections affects investor confidence in the Indian market.
- This would run contrary to government efforts on making India a manufacturing hub and addressing issues like unemployment.
- So a systematic revision of the Model BIT would be a practical solution.
- The government may also consider establishing a central repository for all relevant data and documents related to investments for better transparency and accountability.

World Economic Situation and Prospects Report

- The report is a jointly published by the United Nations Department of Economic and Social Affairs (UN-DESA), the United Nations Conference on Trade and Development (UNCTAD).
- This year report marks the 70th anniversary of the publication.
- It is the flagship report on the state of global economy.
- The report highlights that, global economic growth reached 3 per cent in 2017, the highest growth rate since 2011.
- It states that, India is set to see the growth accelerating to 7.2% in 2018-19 and 7.4% in 2019-20, up from the 6.7% in 2017-18.

UN-DESA

- UN-DESA is based at UN Headquarters in New York.
- It is an entity of the UN Secretariat responsible for economic, social and environmental issues.
- It promotes international cooperation in the pursuit of sustainable development.
- It helps countries individually and regionally to formulate and implement national development strategies.
- Its in-depth policy analysis has helped resolve many of the world's most pressing socio-economic issues.
- It publishes "**Sustainable Development Goals Report 2017**", which is the annual assessment of global and regional progress towards the Goals.

UNCTAD

- It is headquartered in Geneva, Switzerland and part of the UN Secretariat.
- It is a part of the United Nations Development Group (UNDG).
- It was formed specifically to handle the problems of developing countries dealing with trade, investment and development issues.
- Other reports published by UNCTAD – Trade and Development Report, World Investment Report, The Least Developed Countries Report, Information and Economy Report, Technology and Innovation Report and Commodities and Development Report.

Retail Inflation

- Retail inflation is measured by Consumer Price Index (CPI) with 2012 as the base year.
- CPI is a measure that examines the weighted average of prices of a basket of consumer goods and services that are consumed by the average consumer.
- It is calculated by taking price changes for each item in the basket of goods.
- It is released by Central Statistics Office in 3 categories such as CPI rural, CPI urban and CPI combined.
- CPI combined rises by 1.30 per cent in November to 4.88 over the previous month.

All India Inflation rates (%) based on CPI (General) and CFPI

Indices	November 2017 (Prov.)			October 2017 (Final)			November 2016 (Final)		
	Rural	Urban	Comb.	Rural	Urban	Comb.	Rural	Urban	Comb.
CPI (General)	4.79	4.90	4.88	3.36	3.81	3.58	4.13	3.13	3.63
CFPI	4.11	4.90	4.42	1.75	2.13	1.90	2.79	0.75	2.03

Notes: Prov. – Provisional, Comb. - Combined

Wholesale Price Index (WPI)

- WPI represents the price of basket of goods at a wholesale stage i.e. goods that are sold in bulk and traded between organizations instead of consumers.
- WPI is calculated by the Office of Economic Advisor, DIPP under Ministry of Commerce and Industry.
- The base year for the index is 2011-12.
- The components of WPI include Primary articles, Manufacturing items, fuel and power with different weightages assigned to them.
- The weightages are Primary Articles (Weight 22.62%), Fuel & Power (Weight 13.15%), and Manufactured Products (Weight 64.23%).
- It basically indicates the rise in profitability of industries.
- The annual rate of inflation is calculated based on monthly WPI.
- WPI index for the month of November, 2017 rose to eight month high (3.93%).

India BPO Promotion Scheme (IBPS)

- IBPS aims at setting up business process outsourcing (BPO) units in rural areas to secure balanced regional growth of the industry.
- It is under the Digital India Programme to create employment opportunities and promotion of BPO operations.
- The objective is to create opportunities for the youth living in these areas so that they do not need to migrate to urban clusters.
- It provides capital support along with special incentives up to Rs 1 lakh in the form of viability gap funding (VGF) to companies to create BPO units.
- Disbursement of financial support under the schemes is directly linked with employment generation.
- It provides special incentives for employment to women and Divyang, setting up operations in towns other than capital towns, generating employment beyond target and promoting local entrepreneurship.
- There are also special provisions for the Himalayan states of Jammu & Kashmir, Himachal Pradesh and Uttarakhand
- Metro cities such as Bengaluru, Chennai, Hyderabad, Kolkata, Mumbai, National Capital Region (NCR), and Pune, along with their urban agglomeration were excluded.

SANKALP Project

- Skills Acquisition and Knowledge Awareness for Livelihood Promotion (SANKALP) aimed at providing market relevant training to youths across the country.
- It is a centrally sponsored scheme under the Ministry of Skill Development and Entrepreneurship and supported by World Bank loan assistance.
- It also aims to enhance institutional mechanisms for skills development and increase access to quality training by setting up a national body for vocational education - Vocational Education and Training (VET).
- VET shall regulate accreditation and certification in both long and short term thereby bringing about uniformity in vocational training.
- India has recently signed the loan agreement with World Bank for this project, which ends in 2023.

Ranganadi Hydroelectric Dam

- It is the Run-of-the-River (ROR) dam constructed on Ranganadi River in Arunachal Pradesh.

- ROR is a type of hydroelectric generation plant whereby little or no water storage is provided.
- Substantial flooding of the upper part of the river is not required for run-of-river projects as a large reservoir is not required.
- It does not require the formation of a reservoir thus eliminating the methane and carbon dioxide emissions.
- The Emissions are generally caused by the decomposition of organic matter in the reservoir of a conventional hydro-electric dam.

Tuirial Hydro power

- Tuirial Hydro Electric Project (60 MW) in Mizoram is being implemented by North Eastern Electric Power Corporation.
- The project was started in 1998, which is the biggest power project located in Mizoram.
- It is earth fill and gravity dam over Tuirial which is the first ever Central project to be successfully commissioned in Mizoram.
- Ministry of Power has been partly funded the project under NLCPR-Central Scheme.

NLCPR

- Non-Lapsable Central Pool of Resources (NLCPR) for the North East region is provided by the Ministry of Development of north east region (DoNER).
- The accumulations in NLCPR are utilized by the Ministry of DoNER under the two Schemes of NLCPR (State) and NLCPR-Central for which annual budgetary allocations are provided in the normal budgetary process.
- Under the NLCPR (State) Scheme, priority projects of North Eastern States are being funded.
- Under NLCPR-Central Scheme, funds are provided to Central Ministries for implementing projects of national and regional importance.

PradhanMantri MUDRA Yojana

- The programme was launched to give access to cheap credit to poor and small fledgling businesspersons with the objective to provide self-employment.
- Micro Units Development and Refinance Agency Ltd. [MUDRA] is an NBFC supporting development of micro enterprise sector.
- Under the scheme, loans are given to non-farm income generating enterprises in manufacturing and trading and services whose credit needs are below Rs.10 lakh.
- MUDRA provides refinance support to Banks / MFIs for lending to micro business.
- Public sector, regional, rural, State and urban cooperative banks to eligible for refinancing from MUDRA.
- Loans can be availed under three categories
 - **Shishu** for loans up to Rs.50,000;
 - **Kishor** for loans above Rs. 50,000 and up to Rs.5 lakh;
 - **Tarun** for loans above Rs.5 lakh and up to Rs.10 lakh.
- Mudra debit cards are issued to borrowers. Using these, they can withdraw the loan from any ATM in India, as and when they need the money.
- Union government has recently tasked Labour Bureau to carry out the survey to ascertain the number of jobs created under the scheme.

INTERNATIONAL AFFAIRS

India Japan Australia' Trilateral & ASEAN

In News

- The fourth trilateral between Foreign Secretaries of India, Japan and Australia was recently held in Delhi.
- Amid growing convergences, the countries have agreed to greater collaboration on maritime security and also reached out to ASEAN.

Issues Discussed

- Three sides resolved for greater collaboration on maritime security, counter terrorism and disaster response capabilities.
- In a perceived jibe at China, the importance of peace, democracy, economic growth and a rule-based order was stressed.
- Also, commitment to regional connectivity, project transparency, financing, environmental & labour standards were reiterated.
- A statement underlining ASEAN's centrality in the political and security architecture of the Indo-Pacific region was also made.
- This further indicated the possibility of the trilateral grouping also co-operating with East Asian nations in the security domain.

India's ASEAN Outreach

- India would be soon hosting a commemorative ASEAN-India summit in Delhi.
- The theme of the engagement is expected to be '3Cs' – "Commerce, Connectivity & Culture".
- Also, all 10 ASEAN-nation leaders will be the chief guests at the coming Republic Day parade.

Brexit: Update

In News: Theresa May government in Britain faced a new challenge in the Brexit process, with an amendment being passed in the parliament.

Recent Development

- The rebels within the ruling party allied with major opposition parties to push through an amendment to the Brexit legislation.
- The amendment prescribes a greater say for the Members of Parliament on the terms of Britain's departure from the EU.
- The amendment was passed despite a last-minute attempt by the government to offer a "concession".

Implications

- **Brexit** - Britain recently made landmark agreement after tough negotiations with the EU on the terms of Britain's exit.
- The terms of agreement include those on -
 - the status of British and EU migrant residents in their respective territories
 - the financial settlement of London's outstanding dues
 - reconfiguration of the EU-UK border between Northern Ireland and the Republic of Ireland
- The recent vote in the parliament casts a shadow over this consensus development in the Brexit process.
- **Government** - The tussle between parliamentary sovereignty and executive authority has existed since the Brexit referendum.
- The country's Supreme Court ruling held that since domestic laws would be altered following Brexit, a parliamentary vote on initiating that process was mandatory.
- In this backdrop, the defeat in parliament comes as a humiliating loss of authority for the government.
- The development was met with anger from hardline Brexit supporters.
- However, it is an important guarantee of parliamentary scrutiny over the future course of London's relationship with the EU.
- The amendment will ensure that legislators have a voice in finalising the terms of the exit agreement.
- This gains greater significance with the impact on residency status of millions and London's financial liabilities in a post-Brexit scenario.

Way Forward

- Ms. May will have to make some difficult compromises in the months ahead.
- And be more accountable to her party and to the Parliament.
- Another test lies ahead in Parliament, pertaining to the differences over the March 2019 deadline for Brexit.
- Also, with referendums becoming a popular tool worldwide, the world countries should consider the larger debate on whether such votes should override the will of the legislature, or guide it.

WTO Ministerial Conference

In News: The 11th biennial ministerial conference of the 'World Trade Organization (WTO)' recently ended.

- However India's concerns remain unresolved.

Ministerial Level Meeting of WTO

- It is the **highest decision-making body** of the WTO.
- Under the Marrakesh agreement establishing the WTO, the Ministerial Conference is to meet at least once every two years.
- The last Ministerial Conference took place in Nairobi, Kenya, in December 2015.
- The Eleventh Ministerial Conference (MC11) took place from 10 to 13 December 2017 in Buenos Aires, Argentina.
- The Ministerial Conference was attended by trade ministers and other senior officials from the organization's 164 members.

Current ministerial go

- **Developed countries** - They wanted the ministerial to see the fast-tracking of e-commerce talks but they didn't make much headway.
- US, EU & Japan issued a joint statement aimed at China, on trade-distorting practices such as over-capacity and mandating technology transfer policies.
- The U.S. even argued that the 'Developing Nation' tag was being misused by some countries that were rich in absolute GDP terms.
- **Developing Countries** - Contrarily, India and China also submitted a joint proposal to end the trade-distorting farm subsidies of Western nations.
- For India, although none of its 'offensive' interests were achieved, its 'defensive' interests remain protected.
- Hence, despite the stalemate, it has been regarded a partial success for India.

Key Highlights

- WTO members launched the G7+ WTO Accessions Group (Group of seven leading industrial countries: Canada, France, Germany, Italy, Japan, United Kingdom, United States).
- It is a new platform designed to help post-conflict and fragile economies through WTO membership.
- India's expenditure on Food Subsidy which is capped by the WTO and later withdrawn was a major point of discussion during the meet.
- India for the first time submitted its formal documents opposing the inclusion of e-commerce in the list of negotiations to be held during the meeting.

Major Issues

- **Food Security Issue** - Currently, a temporary 'Peace Clause' is in effect.
- This bars countries from lodging complaints with the WTO against the subsidized food security programs of the developing world.
- In this backdrop, India pushed for a '**permanent solution**' to replace the '**Peace Clause**' and to safeguard its grain stockpiling & public procurement programs.
- While a permanent solution was thwarted by the US, the current 'peace clause' remains in place - thereby retaining status quo.
- **Fishing subsidies** - These are provided mainly by the developing world to help their fishermen who are predominantly subsistence fishers.
- These subsidies have been alleged to be distorting the markets as it affects the businesses of the high-tech industrial fisher countries like Japan & Canada.
- The developed countries also stressed that, unsustainable fishing was on the rise due to such subsidy policies.
- Due to opposition from the developing world, this issue has been pushed to the next ministerial in 2019.

India's Area of Concern in WTO

- Matter of food stockpiles in developing countries is of particular interest to India, which has, through its poorly conceived public distribution system, created a vast stockpile of foodgrain.
- Actions to add to or trade parts of this stockpile have big effects on world prices and thus can severely distort the market.
- Developed countries such as the US, meanwhile, are unwilling to cede India and other developing nations the right to create a food stockpile through domestic procurement in perpetuity.
- They argue that they are willing to make allowances for food security and thus accept the need for a stockpile, but not the need for exclusively local procurement to build that stockpile.

Actions Taken By India to Address This

- India has gone to successive WTO meetings with, essentially, a one-point agenda: To protect its procurement system.
- India sees itself as a leader of the developing world in such fora, to seek to build its negotiating capacity.
- India is also working to replace its policies perhaps with a form of income support for subsistence farmers so that they can gradually be weaned away from a dependence on wheat and rice that is straining the environment and distorting markets.

Developing Vs. the Developed World

- In the late 90s, it was felt that the rules of the emerging global free market economics was tilted in favor of the industrialized and developed countries.
- As WTO was also ushering such a world order, the developing world countries raised their grievance in WTO's Doha Ministerial of 2001.
- These prominent issues raised were –
 1. **Agriculture** - Undoing the trade-distorting subsidies provided in the developed countries for farming
 2. **Medicines** - Relaxing IPR norms for life saving drugs in developing countries
 3. **SDT** - Special & Differential Treatment was sought for goods from the weaker countries (to make them competitive internationally)
- While, negotiations on most of these issues haven't concluded, the developed countries have been keen to move on to newer issues like 'e-commerce'.
- On the contrary, the developing countries want the Doha issues to settled first before taking up newer things as it might distract focus.

Way Forward

- **US Withdrawal** - Trump administration's disregard for multilateral forums and agreements was more than visible in the conference.
- Previously, the US had blocked the reappointment of judges to the appellate body of the WTO. Such moves could weaken the WTO structurally.
- **Lack of consensus** – The stubborn positions of the negotiating blocks has led to certain issues pending for decades.
- These could effectively render WTO as an ineffective forum of engagement.
- **India's issue** – While India's GDP may be growing, the country has hundreds of millions living in poverty and without food security.
- It has been facing an increasing rough WTO table as it tries to balance its sovereign responsibility to feed its millions and the pressures against subsidies.

US Fed Rate Hike

In News: The US central bank recently raised the benchmark interest rate for the third and final time this year.

Key Highlights

- The Fed's policy-setting Federal Open Market Committee increased the key lending rate.
- It made a quarter point increases on the cost of loans for everything from houses to cars.
- The federal funds rate is now in a range of 1.25-1.50%.
- Continued strong labour market and solid economy are cited as reasons for the hike.
- The Federal Reserve has however left its rate outlook for the coming years unchanged, with a forecast of three rate increases in the following year.
- This is despite the policymakers projecting a short-term acceleration in U.S. economic growth.
- The central bank thus largely continues with its gradual tightening of monetary policy.
- However, inflation is expected to remain below the Fed's target of 2% for another year.
- Logically this remains a considerable concern, as policymakers saw no reason to accelerate the expected pace of rate increases.

India's Concern

- There was a surprise depreciation of the US dollar and it weakened a little against the euro.
- The impact of these decisions on India and other emerging markets will depend on several factors.
- World assets are doing well as evident from stock markets in the US, eurozone, and Japan being at multi-year highs.

- The rate hike could lead to money flowing back into hard-currency assets.
- The actual announcement lifted gold prices quite unexpectedly.
- Demand for the precious metal from important consumers, China and India, is likely to be subdued in the months ahead.
- If global liquidity is cut by rate hikes, traders will sell Emerging Market assets first.
- An emerging market fund is a fund that invests the majority of its assets in securities from countries classified as emerging.
- These countries including India are in an emerging growth phase and offer high potential return with higher risks than developed market countries.

DEFENCE/SECURITY AFFAIRS

EU's PESCO defence pact

In News

- 25 'European Union' nations signed the landmark PESCO pact to establish closer defence ties.
- The project is seen as a major step towards establishing the 'European Defence Union'.

EU's Security Apparatus

- Establishing a military headquarters for co-coordinating overseas European security operations was approved earlier this year.
- This was followed by the announcement for setting up a 5.5-billion euro European Defence Fund.
- Currently, the **Permanent Structured Cooperation** (PESCO) has been signed.
- This seeks to tighten defence & improve coordination in the development of new military hardware among signatory countries.
- Notably, earlier efforts to deepen military links among EU members had failed for decades mainly due to Britain's opposition.
- But Brexit and Russia's annexation of Crimea has brought the limelight back to the need for a strong European security treaty.

Specifics of PESCO

- Touted as EU's most ambitious project, PESCO's primary focus is slated to be defending Europe and complementing NATO.
- **Membership** - Participation in PESCO is voluntary and those opt out now can join later if all founding members approve of it.
- Currently, Britain, Denmark, Malta & Ireland are the only EU members who haven't taken up the deal.
- PESCO has provisions for non-member non-EU countries to take part in specific missions but without a role in decision making.
- **Commitments** - A commitment to regularly increase defence budgets in real terms has been reached.
- Countries have pledged to provide 'substantial support' in the form of personnel, equipment, training & infrastructure for joint European military missions.
- Also, devoting 20% of defence spending to procurement and 2% on research and technology has been agreed upon.
- Significantly, PESCO will subject member countries to an annual review and failure to meet commitments could lead to termination of membership.

Expectations

- Crisis Response Core & Cyber Rapid Response Teams are to be developed under German & Lithuanian leadership respectively.
- Harmonising weapons systems by developing new equipments such as tanks & submarine drones are expected to be taken up.
- PESCO may also lead to the creation of a European military hospital or logistics hub in future.

Future of Autonomous Weapons

Context:

- The UN Group of Governmental Experts (GGE) recently met in Geneva to discuss on the future of autonomous weapons.
- With polarized opinions among countries for its use and ban, it is essential to understand the validity of the demands.

Autonomous Weapons

- Lethal Autonomous Weapon Systems (LAWS) are designed as weapons, that once activated can select and engage targets without further human intervention.
- They are also called the Lethal Autonomous Robots (LAR), robotic weapons, or killer robots.
- LAWS are operable in the air, on land, on water, under water, or in space.
- Reportedly, at least six states - the US, UK, Russia, China, Israel and South Korea - are already developing and testing autonomous weapons.
- Another 44 countries, including India, are exploring their potential.

Call for Its Ban

- It is feared that countries would be driven to engage more frequently in military standoffs.
- This is because, in autonomous weapons era, the fear of combat fatalities would no more be a deterrent for military engagements.
- There is also a fear that rapid proliferation of these weapons would ultimately leave them in the hands of authoritarian regimes.
- Furthermore, these weapons could develop as instruments of power and trigger countries to indulge in an Artificial Intelligence arms race.
- The call for a ban draws support from the fact that the international community had, in the past, banned devastating weapons, such as biological ones.

Criticism

- **Military Engagements** - Political, geographical and historical drivers are far more likely to influence a state's decision to enter into an armed conflict.
- Autonomous weapons themselves are less likely to be either a deterrent or a driving force for military conflicts.
- These weapons can, in fact, increase the cost of aggression, thereby deterring conflict in a way.
- **Authoritarian control** - The argument that a ban might prevent such weapons from landing in the hands of a dictator is unconvincing.
- LAWS rely on advancements in AI and machine learning.
- And most of these developments are taking place in the civilian sector, with the potential for "dual-use" military capabilities.
- **Regulation** - Autonomy will be introduced gradually into various functions of weapon systems, such as mobility, targeting and engagement.
- It is thus currently impossible to define which kinds of autonomous weapons need to be banned given the absence of functioning prototypes.
- **Destructive weapons** - Biological, or even nuclear weapons, by their very nature, are incapable of distinguishing between combatants and non-combatants.
- LAWS, on the other hand, with its technological sophistication and time, can meet the established International Humanitarian Law (IHL) thresholds of distinction and proportionate response.
- **Arms Race** - It is undeniable that arms race has been under way for some time now and not going to be introduced newly by the autonomous weapons.
- **Inequality** - A pre-emptive ban is only likely to compound inequity in military capability, with the bigger powers employing these weapons anyway.
- Every member of the UN Security Council refused to consider a ban on autonomous weapons in the GGE.
- This is a powerful indication of how unsuccessful a ban is likely to be.

Way Forward

- Ultimately, the future of autonomous weapons will pivot more around questions of strategic value and less on morality.
- Rather than mischaracterizing LAWS as new weapons of mass destruction, it is critical to develop principles to govern their use.
- The focus must necessarily shift from controlling autonomy in weapons to controlling the lethality of their use.
- Consequently, degree of necessary human control has to be identified and frameworks of accountability and military necessity should be considered.

Integrated Cyber Security Approach

Context

- India is growing at a rapid phase in Information and communication technology sector.
- So we need an integrated cyber-security approach to address growing concerns.

India's Share in Digital Tech

- India is one of the key players in the digital and knowledge-based economy.
- We hold more than a 50% share of the world's outsourcing market.
- India is world's 3rd largest hub for technology-driven start-ups in the world.
- Its ICT sector is estimated to reach the \$225 billion landmark by 2020.
- India has successfully implemented initiatives such as Aadhaar, MyGov, Government e-Market, DigiLocker, Bharat Net, etc.

India in Terms of Cyber Security

- Increasing digital integration in commerce and governance made India the 5th most vulnerable country in the world in terms of cyber security breaches.
- Till June 2017, 27,482 cyber security threats had been reported in the country, according to the Indian Computer Emergency Response Team's (CERT) report.
- In India, in May 2017, a data breach at the food delivery App, Zomato, led to personal information of about 17 million users being stolen and put for sale on the Darknet.
- Similarly, hackers stole data from 57 million Uber riders and drivers.
- There are rising number of viruses and malwares are also being developed, which gives the attackers cross-platform options.

Measures Taken by India

- India has ranked 23 out of 165 nations in the commitment of nations to cyber security, which is a significant achievement.
- India is planning for an integrated cyber security policies and frameworks and creating adequate infrastructure to tackle cyber threats.
- To address the rising cyber threats in India, the nation had hosted 15th Asia Pacific Computer Emergency Response Team conference and 5th Global Conference on Cyberspace 2017 in Delhi.
- In the recent summits India reaffirmed a global call to action for all United Nations member nations to not attack the core of the Internet even when in a state of war.
- The government is keen to fund cyber security research; it announced that it will award a grant worth Rs. 5 crore to start-ups working on innovations in the field of cyber security.

INS Kalvari

- It is a Scorpene class submarine, named after deep sea tiger shark, inducted into Indian Navy recently.
- The submarines of Scorpene class are propelled by diesel-electric engines and Torpedo is mounted as a primary weapon.
- It weighs 1500 tonnes and can go up to depths of 300m.
- It will have both anti-surface and anti-submarine warfare.
- It also features an additional air-independent propulsion (AIP) system.
- Conventional diesel-electric submarines have to surface every few days to get oxygen to recharge their batteries. With AIP systems, they can stay submerged for much longer periods.
- It is first of the six submarines developed by the French DCNS under Project 75.
- The project was signed in 2005 for building submarines by the Mazgaon Dock Limited in Mumbai with transfer of technology from France.
- INS Kalvari is followed by INS Khanderi which is currently undergoing sea trials and expected to be inducted by the end of 2020.
- The Navy currently possesses 13 conventional submarines and one nuclear attack submarine INS Chakra on lease from Russia.
- The Navy last inducted a conventional diesel-electric submarine, INS Sindushastra, procured from Russia in 2000.

INS Chakra

- INS Chakra belongs to Akula-class nuclear powered Submarine.
- It was taken from Russia on a 10 year lease period.
- Originally named as K-152 Nerpa, it was handed over to the Indian Navy in 2011.

- Though it is a nuclear powered submarine, it carries only conventional weapons and not nuclear tipped missiles.
- It is based at INS Virbahu, the submarine base in Visakhapatnam.
- It is the second nuclear submarine after the indigenously built INS Arihant.
- INS Arihant is capable of launching nuclear-tipped submarine ballistic missiles.

Khanderi

- It is the second Scorpene Submarine built under the Project-75, following INS Kalvari.
- It was named after an island fort of Maratha ruler Chhatrapati Shivaji.
- It was launched in January and sea trials have begun. It is expected to be commissioned within this year.
- It is followed by third Scorpene Submarine known as “Karanj”.
- Scorpene Submarines are class of diesel-electric attack submarine which is designed by French naval defence and energy company DCNS and being manufactured by Mazagon Dock Limited in Mumbai.
- It features additional air-independent propulsion (AIP).

GEOG./ENVIRONMENTAL AFFAIRS

Re-Curving Cyclones

In News: Scientists have revealed that re-curving cyclones play an important role in sensing the movement of cyclones.

Movement of Cyclones in Indian Context

- The cyclone ones that typically strike the Indian neighborhood in the northern hemisphere rotate anticlockwise.
- Their normal behavior is to derive strength from the moisture in waters such as the Bay of Bengal, move west, incline in a northerly direction and peter out into the sea or land, depending on their origin.
- Eg. Mora, which formed over the Bay of Bengal on May 26.
- It rapidly strengthened on May 28, with the India Meteorological Department classifying it as a “depression” and eventually as a cyclonic storm.
- It kept north, almost parallel to the Myanmar coast and then made landfall in Bangladesh and blew over Nagaland.

Re- Curving Cyclones

- On its way to diminish if cyclone gets a sort of second wind by deflected right or eastwards is known as re-curving cyclones.
- This is due to air currents in the local atmosphere that push cold air from the poles towards the equator and interfere with cyclone formation.
- In the southern hemisphere, the cyclones spin clockwise and therefore also re-curve in the opposite direction.
- During the monsoon months, cyclones in the Western Pacific move westwards towards India and aid the associated rain-bearing systems over the country.
- However, in the years of a re-curve, they do not give as much of a push to the rain as they do in the good monsoon years.

Relevance with Ockhi Cyclone

- A challenge with re-curving cyclones is that it is hard for weather models to pick them early on as was the case with Ockhi.
- August rains in India were dampened, which was 13% short of Cyclone Ockhi.
- The whirlwind that arose in the Bay of Bengal and revved up over Sri Lanka was expected to pass over Lakshadweep and then ease into the Arabian Sea, far away from India’s west coast.
- However, the cyclone ended up sharply swerving into parts of Maharashtra and Gujarat.
- It did not blow in very strongly because there it had not gained as much moisture from the Arabian Sea like it had over the Bay of Bengal and the Indian Ocean boundary.
- And though it wreaked havoc in Kerala and Tamil Nadu, and destroyed several beaches in Goa when it curved back to the land.

Implications

- In general, cyclone activity in India peaks around November, by which time, the summer monsoon has already passed.
- Rarely do re-curling cyclones pose a mortal threat to Indian coasts and Cyclone Ockhi raised hackles because it had already left a certain amount of damage and threatened Gujarat and Maharashtra.
- Long-term data suggest that while there has been an increase in the number of tropical cyclones in India's neighborhood there is no clear trend in re-curling ones.

Need for Reducing Urea

In News: PM Modi has requested farmers to cut urea consumption by half in the next 5 years.

Basis

- To drive the point for urea reduction, the PM cited 'Hamirpur district in Himachal Pradesh' where farmers had reduced urea consumption.
- Apparently, this had increased wheat productivity by three times and increased their income by Rs 5000-6000 per acre.
- While this is indeed optimistic, the question of whether scaling up is possible at an all-India level by 2022 remains.

Anomaly

- India is currently an important urea market with consumption of about 30 million tonnes (mt) of urea annually, of which about 24.5 mt is domestically produced.
- Notably, the government itself is trying to increase urea production by about 5.2 mt by reviving four of its dormant urea plants.
- Given this, the call for reducing urea consumption, had raised concerns in the fertilizer industry.

Concerns

- **Prices** - Urea prices in India are perhaps the lowest in the world, with most countries in the neighborhood having 2-3 times higher prices than India.
- Extremely low prices of urea lead to its diversion for non-agricultural uses as well as smuggling to neighboring countries.
- **Dosage** - There is a practice among farmers of using higher doses of urea (nitrogen) than the recommended level.
- This leads to the lack of sufficient phosphate and potash in the soil, which is subsequently affecting the yields.
- **Deficiency** - There is a massive deficiency of micro-nutrients like zinc, which is leading to zinc deficiency in wheat and rice, contributing to child stunting.
- As all of these need urgent correction, the call for slash urea consumption by half, needs serious thought.

Government Efforts

- While there is an overall increase in consumption, in the last five-six years, urea consumption on per hectare basis has stagnated in India.
- These trends are probably due to some government measures and other factors.
- **SHC** - 'Soil Health Card' Scheme provides for guidelines on nutrients use in the soil.
- **NCU** - 'Neem Coated Urea' policy began in 2008; when initially 20% of urea produced was to be neem-coated, since 2015, 100% neem coated urea was mandated.
- The concept is that NCU can improve nitrogen-use efficiency (NUE) by about 10% by slowing the release of nitrogen.
- SHC Scheme and NCU policy are already working for reducing urea consumption.
- If implemented comprehensively, this can help further rationalise the use.

Way Forward

- The pricing policy for urea continues to remain highly subsidised.
- This makes it difficult to achieve any significant reduction in urea consumption.
- There are talks for 'Direct Benefit Transfer' (DBT) for fertilizer subsidies.
- If DBT is implemented, market forces would decide fertilizer prices.
- Consequently, this would encourage the industry to innovate and also eliminate all diversions to non-agri-uses and cross-border smuggling.
- This will also incentivize farmers to use fertilizers in appropriate ratios.

Ban on Petcoke

- The Supreme Court relaxed its ban on the use of petroleum coke and allowed cement and limestone industries to use it.
- The court has earlier urged States and Union Territories to move forward towards a nationwide ban on the use of petcoke and furnace oil to power up industries in an attempt to fight pollution.
- The decision to modify its earlier stand is due to government's stand that petcoke is used as an ingredient and not as fuel in the cement industry.
- The sulphur is mostly absorbed in the process of cement-making.

Petroleum Coke or Petcoke

- It is a final carbon-rich solid material that is derived from oil refining.
- Petcoke is over 90 percent carbon and emits 5 to 10 percent more carbon dioxide (CO₂) than coal on a per-unit-of-energy basis when it is burned.
- It can contain vanadium, a toxic metal which is toxic in tiny quantities, 0.8 micrograms per cubic meter of air.
- It is sometimes a source of fine dust, which can get through the filtering process of the human airway and lodge in the lungs.

Furnace Oil

- It is a dark viscous residual product used as a fuel in different types of combustion equipment.
- It is obtained by blending residual products from various refining processes with suitable diluents to obtain the required fuel oil grades.
- It is used in special applications such as
 - In marine engines and slow speed engines for power generation
 - For drying tea leaves
 - In gas turbines for power generation
 - As a feed stock for fertilizer manufacturing
 - In thermic fluid heaters and hot air generators.

New Island

- The world's newest island "Hunga Tonga Hunga Ha'apai" was formed during a volcanic eruption in the remote Pacific three years ago.
- The island rose from the seabed about 65 km northwest of the Tonga capital Nuku'alofa.
- Scientists expected that the island will last anywhere from six to 30 years due to its resilience.
- It is mainly because warm sea water combined with ash during the volcanic explosion to create a concrete-like substance known as "tuff" (a light porous rock).
- Scientists believe that studying the life cycle of this new island will give insights in to Mars environment, since it is having many similar volcanic islands.



Tonga Island

Alien Species

- The Zoological Survey of India (ZSI) has for the first time compiled a list of alien invasive animal species, totalling 157.
- In which 58 are found on land and in freshwater habitats, while 99 are in the marine ecosystem, this number excludes invasive microbe species.
- Alien species become 'invasive' when they are introduced deliberately or accidentally outside their natural areas, where they out-compete the native species and upset the ecological balance.

- This compilation was announced on the sidelines of the National Conference on the Status of Invasive Alien Species in India, organised by the ZSI and the Botanical Survey of India (BSI).

List of Invasive Animal Species

- Zoological survey of India has recently compiled the list of invasive animal species.
- These are species which pose a threat to the native biodiversity and human well-being.
- **Papaya Mealy Bug** - It belongs to Mexico and Central America.
- It is believed to have destroyed huge crops of papaya in Assam, West Bengal and Tamil Nadu.
- **Cotton Mealybug** - It is a native of North America but has severely affected cotton crops in the Deccan.
- **Amazon Sailfin catfish** - It is destroying fish populations in the wetlands of Kolkata.
- **African Apple Snail** - It is said to be most invasive among all alien fauna.
- It is a mollusk and was first reported in the Andaman and Nicobar Islands but today it is found all across the country.
- **Orange Cup-Coral** - It originated in the Indo-East Pacific.
- It has been reported in the Andaman and Nicobar Islands, the Gulf of Kutch, Kerala and Lakshadweep.

Gene to Tackle Stress Faced By Plants

- Plants during their lifetime face **biotic stress** induced by living entities (pathogens) and **abiotic stress** caused by non-living entities (drought, osmotic stress, chemical or salt stress).
- Scientists have recently discovered a single gene whose expression controls the plants' response to both biotic and abiotic stress.
- Hsp31 is a heat shock protein found in the plants. Over expression of this protein renders them tolerant to stresses.
- Methylglyoxal is an aldehyde which regulates processes such as cell proliferation and its survival at lower concentrations. But above a certain level it becomes toxic, targeting proteins and DNA to turn them non-functional.
- Hsp31 protein is found to detoxify the methylglyoxal when it reaches higher concentration.
- The protein is similar to PARK7 protein in humans which is linked to the early onset of Parkinson's disease.
- Researchers believe that this finding can be used to engineer plants that can withstand, for instance, drought or bacterial infections.

New Projections on Antarctic

- New research on the melting of Antarctic ice sheets has suggested a dramatically faster pace of melting than is currently believed to be occurring.
- As per the study's projection under a high greenhouse gas emission future the median global mean sea level could rise from ~80 cm to ~150 cm.
- Without protective measures, by 2100 (rising seas will) submerge land currently home to more than 153 million people.
- To scale the loss it is nearly four times the combined population of Mumbai, Delhi, Bengaluru and Hyderabad, as per Census 2011.

Operational Oceanography

- The operational oceanography is an activity of conducting systematic oceanographic studies towards providing information services to various sectors.
- Such sector includes fisherman, disaster management, shipping, ports, coastal states, navy, coast guard, environment, offshore industries for conducting their day-to-day operations.

ITCOO

- Cabinet recently approved Agreement with UNESCO on establishment of International Training Centre for Operational Oceanography in Hyderabad.
- It focuses on development of capacity for the countries on the Indian Ocean Rim (IOR), African countries bordering the Indian and Atlantic Oceans, small island countries under the framework of UNESCO.
- Centre will provide assistance in areas of capacity building and training, knowledge sharing and exchange of information.

BIO/ HEALTH ISSUES

Social Support for TB Patients

In News: The Central TB Division has said the government would hand over a sum of Rs. 500/month to each of India's 35 lakh identified TB patients.

TB

- Tuberculosis (TB) is an infectious disease usually caused by the bacterium Mycobacterium tuberculosis.
- It generally affects the lungs, but can also affect other parts of the body.
- The World Health Organization's TB Report, 2017 stated that India had the highest number of tuberculosis patients across the globe.

How can it be eliminated?

- Elimination of Tuberculosis is defined as restricting new infections to less than one case per 100,000 people.
- This is certainly possible only if patients are diagnosed and cured without any break in treatment.
- Interruptions can exponentially raise the patient's risk of developing multidrug-resistant tuberculosis (MDR-TB), which is harder to treat.
- The Revised National TB Control Programme (RNTCP) thus aims at offering regular and uninterrupted supply of high quality anti-tuberculosis drugs.
- The drug regimen, called Directly Observed Treatment Short-Course (DOTS), is provided for free of cost under the Programme.

Recent Measure

- The funds are intended to offset the loss of wages due to TB, and to help with travel and nutrition.
- Studies are showing that there is a considerable linkage between **low body mass index and nutritional deficiencies** and the **higher rates of disease**.
- Under-nutrition is also an established risk factor for progression of latent TB infection to active TB.
- Under-nutrition contributes to an estimated over one million new cases of annual TB incidence in India.
- Half of all adult Indian TB patients get the disease due to malnutrition.
- Given this, the proposed assistance of Rs. 500 may address only a part of the problem.
- The Central TB Division had proposed to double the rations under the public distribution system to families of TB patients.
- This is expected to decrease the possibility of contracting the disease.

Way Forward

- Taking forward the TB-diet link, it is essential that proper research into the right kind of interventions be taken up.
- The right nutritional supplement for TB patients should be devised and incorporated into governmental interventions.
- Nutritional assessment, counseling and support are integral aspects and should be integrated into the overall care management of TB patients.
- Ultimately, reduction of TB burden in India and its elimination will require improving the nutritional status of the community as a whole.

Diphtheria

- Bangladesh has recently launched vaccination drive for Rohingya children against Diphtheria after suspected outbreak kills nine refugees.
- Diphtheria is a highly contagious respiratory disease caused by the **bacterium** Corynebacterium diphtheria.
- It primarily infects the throat and upper airways, and produces a toxin affecting other organs.
- The toxin causes a membrane of dead tissue to build up over the throat and tonsils, making breathing and swallowing difficult.
- The disease is spread through direct physical contact or from breathing in the coughs or sneezes of infected individuals.

- It can be fatal if left untreated, but has become increasingly rare in recent decades due to high rates of vaccination.
- Diphtheria vaccine is a bacterial toxoid, ie a toxin whose toxicity has been inactivated.

TECHNOLOGICAL AFFAIRS

Use of Technology to Address Farmers Concerns

Context

- Indian farmers face the problems of risk and profitability.
- Modern technological tools can mitigate the issues faced by the farmers.

Risks Faced by the Farmers

- The risk-bearing capacity of the farmer has been declining for a long time.
- Their financial ability is so low that failure of a single crop can throw him into distress and push him to suicide.
- Natural calamities results in complete crop failure and has no traces for claiming an insurance.
- Lack of access to irrigation is most prevalent in every parts of the nation

Fiscal Concerns of the Farmers

- During planting, the farmer has no clue about the price he is likely to get for his crop which leads to price risk.
- There is also lack of operational profits from the crop, Profitability depends on input quantities and their prices and output yield and its price.
- Timely credit is a critical item as it is physically not possible for bank staff to cover all farmers in time for the agricultural season.

Mitigation by use of Technology

- **Irrigation technologies** - Flood irrigation must be replaced with precise application systems like drip and hose reel for 50-70 per cent water-saving.
- **Use of data analytics** -Robust insurance programme can be assured by availability farm-level data captured through satellites, sensors and other modern tools.
- Using predictive analytics a price prediction model can be developed which gives the farmer, at planting time, an idea of the likely price it will help him take an informed decision on crop choice.
- **Digital markets** -Linking farmers directly to digital markets will eliminate middlemen and push farmers up the value chain for price discovery.
- Complete digitization for credit availability can be achieved using JAM accounts and digitised land records.
- **Biotechnology solutions**- Replacing transplanted paddy with modified seeds of water-use efficiency gene can save water up to 30 per cent.
- Similarly nitrogen-use efficiency gene and phosphorus-use efficiency gene reduce consumption of fertilizers significantly.
- **Seamless Communication** -The Government should create a unified, reliable data base of farmers with complete details of every cultivatable area.
- Farm-level diagnosis of pests and diseases, advice on nutrition and so on should be available on the mobile phone.

Vahan: Digital Portal

In News: The union government is planning to launch a digital national vehicle registry portal called

Vahan.

Vahan

- Vahan intends to collate all the information available with road transport authorities for easy access by both citizens and regulators.
- Data available with over 90 per cent of all road transport authorities have been computerised for this purpose.
- Vahan contains about 21.68 crore vehicle records in its repository.

- Vahan allows access to all details related to vehicles such as registration number, chassis/engine number, body/fuel type, colour, manufacturer and model and provides various online services to citizens.
- Driving Licence and related data are automated through a separate application called 'Sarathi'.

Significance

- It helps in centralisation of data through the creation of the State and National Registries under Vahan.
- It also helps address the needs of RTOs, police and motor insurers.
- It has been customised to suit the varied requirements of all States and Union Territories.
- Vahan has been designed to capture all the information mandated by the Central Motor Vehicle Act 1988 as well as State Motor Vehicle Rules.
- Banks, which may have given out loans for vehicle purchases, will also have access to the National/State Registry to track the status of vehicles under lien.

Advantages

- With Vahan, multiple visits to the RTO, extensive paperwork, queues, middlemen and bribes, will be eliminated
- Vahan helps carry out most of the RTO related transactions including payments in online which makes the process transparent.
- The need for 'No objection certificate' for transfers will be eliminated since all RTOs will have access to the centralised data.

Scientific Research in India – The Challenges

Issue: Systemic issues that hinder research needs to be addressed.

Administrative Challenges

- The system is also largely run by scientists-turned-bureaucrats and "nepotism, patronage culture" are prevalent.
- Notably, Indian scientists perceive success as 'becoming an administrative head in research institutions', rather than advancing research.
- Also, the prevalent incompetence across the spectrum has taken a toll on 'peer reviewing' where incompetent scientists get to reinforce their mediocrity.
- There is a culture of elitism in our labs, where the manual work is done by lab assistants and scientists mostly just command orders.
- Also, rather than contributing to social debates, Indian scientists shun public commentary, unless it is to serve as government spokespersons.
- This has led to a situation where prominent politicians pass off popular myths as science, without attracting a backlash from the scientific fraternity.

Challenges Regarding Funds

- Currently, it has been observed that, small elite research institutions get most of the grants, while universities get very less research funds.
- Consequently, universities focus mainly on teaching, which has resulted in a clear segregation of education & research – thereby affecting both.
- Due to funding constraints, almost all the significant work from India is in the theoretical domain, as these are less burdened by money requirements.
- Poor performance in experimental sciences is attributed mainly to the lack of significant collaborative efforts and sustained long-term funding.

Way Forward

- With globalization, it is easier to notice the growing contrast between the designs for promoting innovation in the western world and in India.
- Having a young population and a strong Diaspora that is more affluent than any other country, India has the potential pioneering high-tech innovation.
- As a first step, it is important to acknowledge the significant contributions of Indian scientists aboard and capitalise on their learning through collaboration.

First NIC-CERT

- National Informatics Centre (NIC) provides nationwide common ICT infrastructure consisting of national and state "Data Centres" to support e-Governance services to the citizen.

- National Knowledge Network (NKN) has been set up to connect institutions/organizations carrying out R&D, Higher Education and Governance with speed of the order of multi Gigabits per second.
- Computer Emergency Response Team (CERT) is under the Ministry of Electronics and Information Technology.
- It has been designated to serve as the national agency to collect, analyse and disseminate information on cyber incidents.
- Country's first NIC-CERT has been recently setup that will monitor, detect and prevent cyber attacks on government networks
- It uses various tools to gather intelligence to identify vulnerabilities and possible exploits thereby predicting cyber incidents.

Global Innovation Index

- The index is released by Cornell University U.S, World Intellectual Property Organization (WIPO) and INSEAD (a France based International Business School).
- It ranks world economies according to their innovation capabilities using more than 80 indicators.
- India currently ranks **60th out of 127 countries** on the Global Innovation Index (GII) 2017 as compared to 66th rank in 2016 and 81st rank in 2015.
- Switzerland remains the most innovative country followed by Sweden, Netherlands, US and UK.
- China is the first middle-income country that entered the top 25 ranking.
- It is computed based on the average of scores in two sub-indices i.e the Innovation Input Index & Innovation Output Index.

Strength	Weakness
ICT services exports (1 st), Creative goods export (18 th) and Growth rate of GDP per person (5 th)	Ease of starting a business (114 th), Ease of resolving insolvency (111 th), Ease of paying taxes (118 th).

Government's initiatives

- NITI Aayog, DIPP and CII together launched "**India Innovation Index**".
- It will rank states on Innovations through country's first online innovation index portal that will capture data on innovation from all Indian states.
- The **Smart India Hackathon** and Smart India Hardware Hackathon have been launched to improve the innovative abilities of the students in the Higher Education Institutions.
- Projects like **IMPRINT and UchhatarAvishkarYojana (UAY)** focusing scientific community in promoting research and innovation.
- The Start-up India initiative has also put in place a mechanism for identifying and incubating the innovative ideas.

IN-SHORT

Laqshya Initiative

- Government of India has recently launched Laqshya - Labour Room Quality Improvement Initiative.
- Its objective is to reduce preventable maternal and new-born mortality, morbidity and stillbirths by improving the quality of care provided in the labour room.
- It will be implemented in Government Medical Colleges besides District Hospitals, and Sub-District Hospitals and Community Health Centres.
- The initiative plans to conduct quality certification of labour rooms and also incentivize facilities achieving the targets outlined.

Methanol Blending with Petrol

- It is a liquid chemical which is made from the destructive distillation (pyrolysis) of wood and is chiefly synthesized from carbon monoxide and hydrogen.
- Its principal uses are in organic synthesis, as a fuel, solvent, and antifreeze.

- It is also used to produce biodiesel via transesterification reaction.
- Government will soon announce a policy which calls for 15 per cent blending of methanol in petrol to make it cheaper and also reduce pollution.

ASEAN – INDIA Connectivity Summit

- The summit is being organized by the Ministry of External Affairs in partnership with Confederation of Indian Industry (CII).
- The summit with the theme “Powering Digital and Physical Linkages for Asia in the 21st Century” was held in New Delhi.
- Vietnam and Cambodia has participated from the ASEAN side.
- The summit focuses on developing strategies to enhance economic, industrial and trade relations between ASEAN and India.
- It aims at accelerating prospects through Infrastructure, Roadways, Shipping, Digital, Finance, Energy and Aviation.

Asian Infrastructure Investment Bank (AIIB)

- India is set to host the 3rd annual meeting of AIIB at Mumbai in 2018.
- The theme of the meeting will be 'Mobilizing Finance for Infrastructure: Innovation and Collaboration'.
- AIIB is a new multilateral financial institution founded to bring countries together to address the daunting infrastructure needs across Asia.
- The bank has 52 member states with its headquarters at Beijing, China.
- China, India and Russia are the three largest shareholders of AIIB.
- United States and Japan are not its members.
- It has authorized capital of US 100 billion dollars and subscribed capital of USD 50 billion.
- It offers sovereign and non-sovereign finance for projects in various sectors with an interest rate of London Interbank Offered Rate (LIBOR) plus 1.15 % and a repayment period of 25 years with 5 years in grace period.

Institute of Eminence

- Government has recently approved the enabling regulatory architecture for Institutions of Eminence to enable them to reach top 100 in world institutions ranking.
- Institutions of Eminence comprise 10 public and 10 private educational institutions.
- They have complete freedom to decide the curricula, hire domestic and foreign faculty and fix a fee structure of their choice.
- These institutions are expected to make into top 500 world rankings in a decade.
- The institutions which are among top 50 in the National Institute Ranking Framework are allowed to apply for this scheme.

Organisation of Islamic Cooperation (OIC)

- OIC is an international organization founded in 1969, consisting of 57 member states.
- Its administrative centre is located in Jeddah, Saudi Arabia.
- Turkey currently holds the chairmanship of the organization.
- India is not a member to this organisation.
- The organisation works to safeguard and protect the interests of the Muslim world in the spirit of promoting international peace and harmony.
- At the recently held summit in Turkey, it has declared “East Jerusalem” as the capital of Palestine, rejecting the US stance as “dangerous”.

World Inequality Report

- The report is published by **World Inequality Lab**, based at the Paris School of Economics, which aims to promote research on global inequality dynamics.
- According to the report, since 1980, 27% of all new income worldwide was captured by the richest 1%, while the poorest 50% captured only 13% of growth.
- It has highlighted the inequality prevailing in India and stated that the top 10% of the earners accounted for 56% of the income earned in 2014.

- The report says that deregulation and opening-up reforms in India since 1980s have led to substantial increase in inequality.

Sakhi

- National Workshop on Role of Sakhi was recently inaugurated by the Ministry of Women and Child Development.
- Sakhi is a one-stop centre for providing medical, legal and rehabilitation facilities for women subjected to any kind of violence.
- These centres are focused to provide integrated support and assistance under one roof both in private and public spaces in a phased manner.
- It focuses on strengthening of Multi Sectoral Response to violence faced by Women.

World Conference on Vedas

- The conference is being held in New Delhi, inaugurated by Vice President.
- It will have in-depth discussions on de-mystifying various myths and fallacies surrounding the Vedas and Manu Smriti.
- A special session on the World Parliament and UN's Sustainable Development Goals (SDGs) and declaration on human rights will be other salient features of the conference.

FatehpurSikri

- A royal city named FatehpurSikri on the Vindhya hills (presently near Agra) was constructed by Akbar in 1569.
- It served as the capital of the Mughal Empire from 1571 to 1585, and later used by the British as an army outpost.
- The fortification hosts various structures namely,
- **BulandDarwaza** - It is the main entrance to the palace at FatehpurSikri, believed to be the most iconic architectural accomplishment of Akbar's reign.
- BulandDarwaza means gate of magnificence, is the highest gateway in the world (54 meters from the ground level).
- It was built in 1601 A.D. by Akbar to commemorate his victory over Gujarat.
- **IbadatKhana** (house of worship) - Akbar met with scholars and priests of every religion to have philosophical debates on religion.
- **Haram Sara** - Akbar's wife lived in this minor complex.
- **Shabistan-i-Iqbal** - It is commonly known as JodhaBai's palace, which has exquisite carvings, columns with beautiful mouldings, and brackets.
- Only the emperor's seven or eight main wives lived there.

Nyaya Gram

- It is a township with a judicial academy and auditorium in the Allahabad High Court.
- The U.P state government has provided the funding for this judicial infrastructure.
- And U.P public works department is the nominated construction agency.
- It will help judges to assemble and deliberate on the contemporary legislation and developments in the field of law.

Kangri

- Kangri is an earthen pot filled with burning charcoal traditionally used in Kashmir to keep them warm during the winter season.
- It is held by its handle under a long loose woolen garment which people in the Valley wear.
- As a part of their culture, parents give a specially designed pot to their daughter in the first winter after her wedding.
- It is being displayed as a work of art in affluent households, especially in urban Kashmir.
- Kangri-making is a cottage industry, providing employment to many men and women.
- But it is slowly losing out its relevance due to its ill-effects such as causing rashes and burns as well as due to affordability of modern heating appliances like electric and gas heaters.



WakaleoSchouteni

- It is a **new species of marsupial lion** discovered in Australia which has been extinct for at least 19 million years.
- It was a meat eating predator existing in the late Oligocene to early Miocene era (some 18 to 26 million years ago).
- It is named in honour of palaeo-artist Peter Schouten.
- With this new finding, it is believed that two different species of marsupial lions were present in Oligocene era.

Sampark, Samanvay, Samvad

- It is a conclave organized by the **Ministry of Railways** to discuss and deliberate “Vision for New Railway – New India 2022”.
- The conclave is aimed at
 - i. breaking the boundary put up by railway organization in sharing information (sampark)
 - ii. improve co-ordination (samanvay)
 - iii. find solutions (samvad) to the critical issues facing Indian Railways
- It encouraged all officers to give inputs and bring out the ground realities and potential impediments to implementation of new policies and reforms.

Mass Extinction Survivor

- The fossil of an aquatic reptile – sauropterygian which survived the mass extinction has been found recently.
- The Triassic – Jurassic mass extinction has destroyed all aquatic species except this reptile clade.
- It is believed to have lived safe in the depths of the sea which enables it to survive.

White Spotted Bush Frog

- It is found only in the Western Ghats’ Agastya Hills in Kerala and Tamil Nadu.
- It was rediscovered in 2011 after 125 years.
- It belongs to the category of tree frogs and breeds inside hollow bamboo stems.
- It is categorized as “Critically Endangered” in IUCN Red list.
- Male frogs watch over their eggs to guard them from cannibalizing by other male frogs.
- This is the first known instance of cannibalism among tree frogs of the Rhacophoridae family.

Resolution in UNSC on Jerusalem’s Status

- United States has recently recognized Jerusalem as the Israel’s capital, taking a stand against the two state solutions.
- Egypt has drafted a resolution in United Nation Security Council expressing deep regret at recent decisions concerning the status of Jerusalem.
- The resolution does not specifically mention about US President Donald Trump.
- The draft UN resolution had also called upon all countries to refrain from establishing diplomatic missions in Jerusalem.
- The resolution was voted in favor by all members of Security Council except the US which vetoed the resolution.
- Present ten non-permanent members (with end of term date) are Egypt (2017), Italy (2017), Japan (2017), Senegal (2017), Ukraine (2017), Uruguay (2017) Bolivia (2018), Ethiopia (2018), Kazakhstan (2018), Sweden (2018).

Forest Fires

- Forest Fires has been reported in Somanakadu valley, Charmadi range of Western Ghats.

- The range is located in Karnataka region of Western Ghats.
- It acts as a water source for **Netravathi River** which has many rivulets from this range as tributaries.
- Environmentalists have alleged that the forest fire is caused by estate owners to occupy the land after the region has completely been denuded.

Classic IAS ACADEMY