

CURRENT AFFAIRS – JANUARY 2018

POLITY, GOVERNANCE AND PUBLIC POLICY

Violence in Maharashtra - Caste and Nationalism

Context

- There was a caste conflict in BhimaKoregaon and WadhuBudruk in Maharashtra recently.
- It is indicative of the larger issues of caste oppression and sub-nationalism.

BhimaKoregaon Issue

- **The Battle** - BhimaKoregaon is a tiny village in Pune.
- A battle in Koregaon took place between British troops and Marathas (PeshwaBajirao II) on January 1, 1818 and the English won.
- **Significance** - The English troops constituted a sizeable number of Mahars, a dalit community in the region.
- The outcome of the battle is seen as a **victory of the dalits** against the injustices perpetuated by the BrahminicalPeshwas.
- **Vijay Sthamb** - The East India Company erected the Vijay Sthamb (victory pillar) in memory of the battle and it includes the names of the Mahar soldiers.
- Dr B R Ambedkar had also visited it repeatedly and had emphasized the Mahars's defeat of the Peshwas.
- In the following years, thousands have been gathering in BhimaKoregaon on January 1 to pay homage.
- **Current conflict** - The 200th anniversary of the Bhima-Koregaon battle was commemorated recently.
- Dalits increasingly regard the pillar as a symbol of renewed political aspiration.
- The denunciation of the Peshwas is being related with Mahars' **social and political marginalisation in contemporary times.**
- This is driving the Hindutva forces to doubt the conspicuous politicisation of Dalits.
- The resulted in the clash and violence during the anniversary and led to the death of one.

WadhuBudruk Issues

- **History** - WadhuBudruk is a village near BhimaKoregaon, is where Sambhaji, the eldest son of Shivaji, was cremated.
- As the legend goes, killed by the Mughals in 1689, Sambhaji's body was mutilated and thrown into a river by Aurangzeb.
- It was GovindMahar, a Dalit, who then gathered the body parts and arranged for the last rites.
- Sambhaji's memorial was said to have been erected by the Mahars of that village.
- Consequently, GovindMahar's tomb was also erected in the village after his death.
- **Current conflict** - Recently, Marathas, refused to acknowledge the role played by the Mahars in the last rites of Sambhaji.
- They also objected to a sign at the site that recounted the story and complaints were filed with the police by both sides.
- Notably, the violent clashes in BhimaKoregaon were an extension of the conflict in WadhuBudruk.

Larger Implications

- Both the conflicts indicate an effort to situate Maratha history within the Hindutva framework.
- **Dalits** - Being the 200th anniversary, the gathering in BhimaKoregaon was larger than usual and a big public conference was also organized.
- The agenda was evidently against Hindutva politics.
- Notably, Hindutva politics is increasingly being projected as the neo-peshwai (new Peshwas).
- **Hindutva** - The new political articulation of the Dalits by equating Hindutva with the Peshwai has made the right-wing forces concerned.
- Certainly, some of the Hindutvaorganizations are polarizing the political landscape on religious and caste lines.
- This is particularly to weaken the AmbedkariteDalits who are seen as impediments to ensuring a Hindutva regime.
- **Nationalism** - The agitation underscores the latent sub-nationalistic impulses currently active in Indian society.
- In a way, this is a struggle between two nationalisms - religion-based versus caste-based.

The Push for Police Reforms

In News:

- DGPs from all over the country have currently gathered for an annual conference in Gwalior, and significantly, the PM would be participating.
- Despite the importance given, significant police reforms haven't caught up.

Need for the Reform

- There are about 24,000 police stations and outposts across the country, and the total strength of the state police forces is nearly 2.26 million.
- Manpower and infrastructure shortages and lack of functional autonomy are the major challenges, and calculated structural changes are needed.
- The force needs to modernize and become accommodative of the democratic aspirations of the people.
- The country's democratic structure and economic progress is largely reliant on neutrality and efficiency of the police forces, which needs to be preserved.

Current Situation

- After Supreme Court's directives, union government piloted the draft of a "Model Police Act" for reforming the force in 2006, but it was never legislated.
- While more than a decade has passed and SC's monitoring of the case has cooled off, the states continue to drag their feet in this issue.
- Due to the absence of a model law, most states issued directives that ensured status quo in violation of the spirit of Supreme Court's 2006 directives.
- This result is utter confusion at the ground level as most state governments had issued executive orders and passed laws that weren't very different.
- Resultantly, the internal security situation continues to be grim and the police performance leaves are also very low.
- While the current PM has been regularly engaging with police leaders, initiatives to reform the colonial police structure has been lacking.
- Notably, steps that are absolutely essential to strengthen the security apparatus are not being taken and only cosmetic improvements are made.

Recognition for Policing

- Despite constrains, police forces had significant successes in the past.
- Notable among them is the crushing of multiple insurgencies on Andhra Pradesh, Punjab, Tripura and the Terai regions.
- While police duties is tough in any country, India is an exceptional case as more policemen die on the line of duty here than in the entire of Europe.
- Yet, there has been a lack of recognition for these efforts, which is demoralizing and severely constrains their performance.
- If the police force is to meet expectations in upholding law and order, it must be insulated from external pressures and rewarded accordingly for its work.

Challenges

- The failures of police reforms has largely been attributed to "law & order" falling under the state list.
- As tremendous changes havetaken place in the domain of internal security, a concurrent role for the Centre in police matters has arisen.
- Hence, a constitutional arrangement in this regard has to be pushed through for better center-state coordination in policing.

Leak of Aadhaar Data

In News: A reporter of The Tribune newspaper exposed breach in Aadhaar database.

Findings

- The report had exposed that it got access through an "agent" to Aadhaar details of any individual submitted to the UIDAI.
- The details included name, address, postal code (PIN), photo, phone number and email.
- The report had also claimed that it took just Rs 500 and 10 minutes for the newspaper to get access to the above.

UIDAI Response

- The Unique Identification Authority of India (UIDAI) has filed an FIR against the journalist.
- It has filed a criminal complaint naming the journalist of The Tribune and others.
- It justified that criminal proceedings have been initiated for the act of unauthorized access.
- Accordingly, FIR has been registered for violations of the sections of Aadhaar Act, 2016, the IT Act and under the IPC.
- UIDAI has responded that it was "duty bound" to place all facts before the police.
- So, names mentioned in the FIR are just details of the incident and does not necessarily mean they are culprits.
- UIDAI has also firmly denied that it was trying to gag the media or the whistle-blowers.

Overstated Claim

- It is important to stress that the encrypted Aadhaar biometric database has not been compromised.
- The UIDAI is correct in stating that mere information such as phone numbers and addresses cannot be misused without biometric data.
- Moreover these details are already available to telemarketers and others from other databases.

- The suggestion that the entire Aadhaar project has been compromised is therefore overstated and false.

Significance

- **Public interest** - Undercover investigations or sting operations occupy a complex and problematical ethical space in journalism.
- But it is impossible to fault The Tribune's recent unveiling of database breach.
- UIDAI's criminal complaint is thus criticized for suppressing a journalist whose investigation reports was of great public interest.
- **Data protection** - The issue has drawn attention to the existence of an organized racket to facilitate unauthorized access to data.
- The UIDAI expose has again highlighted the long felt need for a robust data protection law.
- **Freedom** - Accusing The Tribune and the reporter would constitute a direct attack on free public-spirited journalism.
- It would also dissuade attempts to hold public authorities and institutions accountable for shortcomings and promises.

Way Forward

- It is obligatory for those who collect information to see that it is secure and not used for purposes other than that meant for.
- This applies to both the government and private players such as a mobile company.
- India does not have a legal definition of what constitutes personal information.
- It also lacks a robust and comprehensive data protection law.
- Having accorded privacy the status of fundamental right, it is logical to bring in place the above two legal specifications.

Paradigm Shift in SC stand on section 377

In News: Supreme Court is likely to re-examine the Section 377 of IPC.

Section 377

- Section 377 under Indian Penal Code (IPC) of colonial era criminalizes homosexuality.
- It is an archaic law that was introduced during the British era in 1860s and makes gay sex a crime for which the punishment can be a life term.
- Under this section whoever voluntarily has carnal intercourse against the order of nature with any man, woman shall be punished with imprisonment for life, and shall also be liable to fine.

Earlier Stands of SC

- In 2009 Delhi high court gave a historic and globally accepted verdict by decriminalized gay sex, but this order was kept aside by the SC in 2013.
- In December 2013 Supreme Court dismissed the LGBT community as a negligible part of the population while virtually denying them the right of choice and sexual orientation.
- A Review Bench of the Supreme Court, in January 2014, had also refused to strike down Section 377 IPC.

Recent Stand of SC

- Recently SC clearly stated that the determination of order of nature is not a common phenomenon.
- Individual autonomy and individual natural inclination cannot be atrophied unless the restrictions are determined as reasonable.
- The court observed that what is natural for one may not be natural for the other, but the confines of law cannot trample on or curtail the inherent rights embedded with an individual under Article 21 (right to life) of the Constitution.
- A right to sexuality, sexual autonomy and freedom to choose a sexual partner forms the cornerstone of human dignity which is protected under Article 21.
- It also proposed that societal morality changes with time and law should change pace with life.
- Thus the order reveals a paradigm shift in the apex court's views.

Death by Hanging

In News: The Centre had told the Supreme Court that executing a death row convict by hanging was the most viable method.

Background

- A PIL had sought quashing of section 354(5) of the Criminal Procedure Code which specifies execution by hanging.
- The plea had referred to a Report of the Law Commission advocating removal of the present mode of execution from the statute.
- It has also referred to Article 21 (Right to Life) of the Constitution.
- It stressed that Art 21 included the right of a condemned prisoner to have a dignified mode of execution so that death becomes less painful.
- This means the right to a dignified life up to the point of death including a dignified procedure of death.
- The PIL had also listed intravenous lethal injection, shooting, electrocution or gas chamber as other viable options in which death is just a matter of minutes.

- It noted that the present practice of executing a death row convict by hanging involves prolonged pain and suffering.
- Notably, in hanging, the entire execution process takes over 40 minutes to declare a prisoner dead.

SC's Directive

- The Supreme Court had earlier adjourned the plea seeking abolition of executing a death row convict by hanging.
- The SC had further urged the parliament to consider amending the Criminal Procedure Code to change the mode of execution to make death less painful.
- It also asked the Centre to appraise it about the various modes of executing death row prisoners prevalent in other countries.
- The court also made it clear that it is not questioning the constitutionality of death penalty but only the mode of execution.

Centre's Response

- The Centre has said that there is no viable method at present other than hanging to execute condemned prisoners.
- It noted that they had tested lethal injections, but it was not workable as there are instances of it failing.

ECONOMIC AFFAIRS

Challenges in Taxing Bitcoins

In News: Union government is working on the complexities in taxing Bitcoins.

Bitcoins

- Crypto-currency is a digital currency that allows transacting parties to remain anonymous while confirming the transaction is valid.
- Bitcoins are crypto currencies which are most commonly used across the globe, they do not have geographical borders or limitations.
- These currencies can be bought from various international exchanges using credit cards or other electronic means.
- These can also be created by a process called mining, which means adding transaction records to the currency ledger.

Crypto Currencies

- The whole new genre of currencies based on cryptography technology and distributed computing is called crypto currency.
- These crypto currencies do not have geographical borders or limitations.
- Crypto currencies aim at minimizing transaction charges or "taxes" associated with the transfer of funds by the removal of intermediaries who charge a fee to process transactions.
- Transactions done globally can be completed in a few seconds with minimal costs compared to traditional financial systems.

Complexities in Taxing Crypto currencies

- **Taxing as a currency** - According to the Foreign Exchange Management (FEMA) Act, 1999, includes currency notes, postal notes, postal orders, money orders, cheques, drafts, traveller's cheques, letters of credit, bills of exchange and promissory notes, credit cards and other such instruments, as notified by the RBI.
- As various entities accept Bitcoin as a mode of payment, it appears that it is a currency.
- But it has not been termed as a currency under the FEMA Act or as legal tender by the RBI, so it may not qualify as currency.
- **Taxing as a Capital Asset** - According to Section 2 (14) of the Income Tax Act, 1961, a capital asset means a property of any kind held by a person, whether or not connected with his business or profession.
- The term 'property' has no statutory meaning, yet it signifies every possible interest that a person can acquire, hold or enjoy.
- Still now there is no clear view in considering Bitcoin as a capital asset.
- **Taxing as Capital Gains from Sale** - If gains arising from transfer of Bitcoins are treated as capital gains, their further classification into short-term or long-term gain will depend on the period of holding of Bitcoins.
- If a Bitcoin is held for more than 36 months, it will be considered a long-term capital asset.
- If the period of holding is lower, it will be treated as a short-term capital asset, thus Bitcoins need to be taxed accordingly which is again making the process lengthy
- **Taxing Bitcoins Earned through Mining** - If profits earned from Bitcoins are taxable as business income, then the Bitcoins earned in the 'mining' process would also be taxable as business profits.
- If Bitcoins are classified as capital assets, the virtual currency earned from Bitcoin mining may not be taxed.
- Since Bitcoins generated through mining process are classifiable as self-generated capital assets and the cost of acquisition of such Bitcoins may not be available.

- **Taxing sale of Bitcoin by NRI** - If Bitcoin is an intangible asset, income accruing or arising from its transfer outside India by a person who is not a resident in India cannot be taxed in India.
- Hence, sale of Bitcoin by an NRI through an Indian Bitcoin exchange may not be taxed in India.
- **Taxing under GST** -If Bitcoin gets classified as a currency, it will be considered as 'money' in the CGST Act and no GST can be charged on its trading.
- However, exchanging Bitcoin to rupees might be considered a service for the purpose of levy of GST under the category of 'financial services'.
- Therefore, the supplier (who is selling the Bitcoin) may be required to pay 18 per cent GST on the total value charged by him from the buyer.

Measures Needs to be considered in Bitcoin Taxation

- RBI need to clear its stand on considering Bitcoin as a currency, If RBI declares it to be a currency, any trading in it will be subject to FEMA regulations.
- Bitcoins could be deemed a capital asset if they are purchased for investment and any gain arising on transfer of a Bitcoin shall be taxable as capital gain.
- If the transactions in Bitcoins are substantial and frequent, it could be held that the taxpayer is trading in Bitcoins, and the income would be taxable as business income.
- Foreign transactions in Bitcoin shall be treated as capital account transactions and any dealing in Bitcoin could be mandated by the RBI.

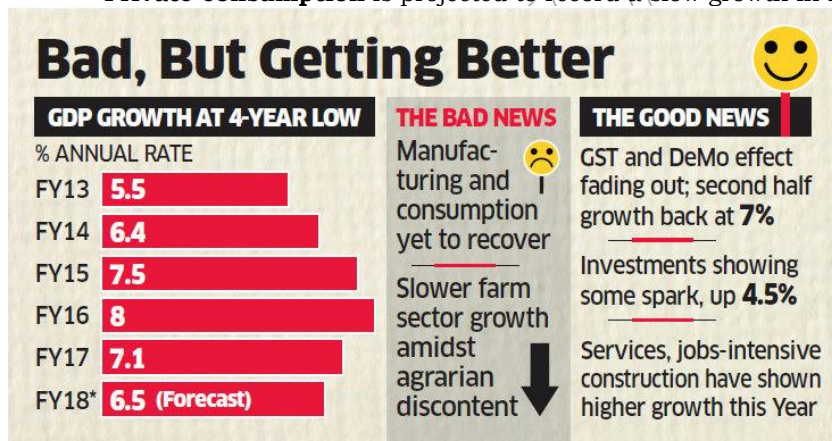
Advance Estimates by CSO

In News

- The first Advance Estimate for India's GDP growth has been released by the Central Statistics Office (CSO).

Highlights

- **GDP growth** in 2017-18 is estimated to be **6.5%** as against 7.1% in 2016-17.
- **Growth in GVA** (gross value added) is projected to fall to **6.1%** in FY18, much lower than the RBI's forecast of 6.7%.
- **Manufacturing** is projected to have decelerated growth at **4.6%** as against 7.9 % in the previous year.
- **Agriculture** sector is estimated to grow at **2.1%**.
- The estimate highlighted that the pace of agricultural expansion is expected to fall by more than half than the previous year.
- This is largely due to decline in kharif output year-on-year.
- **Net taxes** are projected to grow only **10.9%** in the current financial year against 12.8% in the previous year.
- **Public expenditure**, which was the driver of economic growth in the previous year, is likely to slow.
- **Private consumption** is projected to record a slow growth in FY18.



Positive Projections

- **GDP growth** is projected to accelerate to **7% in the second half** of the current financial year from 6% in the first half.
- Taking this forward, GDP growth is expected to become more robust in 2018-19.
- It is significant in the context of the fact that higher second-half growth has come despite a waning of public sector expenditures.
- **Services** are projected to go **higher**.
- This is despite the anticipated fall in growth in government-backed public administration, defense and others.
- This means the government is controlling its expenditure to manage fiscal deficit, which has crossed the Budget Estimates by November itself.
- Evidently, **government final consumption expenditure** is projected to fall by more than half.

- **Investment** seems to be reviving a bit with **gross fixed capital formation** forecast to rise by 4.5% against previous 2.4%.
- **Electricity and trade & hotels** sectors are expected to grow at a faster pace in FY18 compared with the previous financial year.

Significance

- **Growth** - This will be the lowest growth rate in the last four years.
- It is largely attributed to the adverse impact of the goods and services tax (GST) and the lingering effects of Demonetisation.
- With this, India might possibly lose the tag of being the fastest-growing large economy to China.
- **Deficit** - The government has increased its spending through supplementary demands for grants.
- It has also indicated that it would borrow Rs 50,000 crore more by 31 March.
- Given this and the lower-than-anticipated nominal GDP growth, there might certainly be a slippage in the fiscal deficit target.
- It could pose a serious challenge to the government's fiscal consolidation roadmap of bringing down the fiscal deficit to 3% of GDP by 2018-19.
- **Data** - The first advance estimates of GDP are based on data for only seven to eight months.
- Thus it has factored in only limited data for different sectors.
- Given this limitation, a better picture of the health of the economy is expected with the second advance estimates by February.

TRAI's New Regulations on Inter-Connections

Context

- Providing interconnections between networks is mandatory according to TRAI guidelines for telecom operators.
- But the implementation of these guidelines has been poor and hence the new TRAI rules are focused for bringing in better compliance.

Conflict of Interest

- Interconnection between telecom operators has been the cause of many disputes since the sector was opened up to the private sector.
- Some incumbent operators resort to malpractices by using interconnections as a tool to delay or block competition from new entrants.
- Existing dominant operators have either refused to interconnect on flimsy grounds or have arbitrarily priced interconnections to deter new entrants.
- Notably, in 2003, MTNL (which was then the largest operator), had pulled not provided interconnection with new private operator networks.
- Resultantly, subscribers of the private operators could not call MTNL users (the majority) for days, which would mean bad reputation for the new entrants.
- More recently, incumbent players declined to give sufficient points of interconnection to Reliance Jio which in turn impacted the latter's 4G roll out.

New Regulations

- The quality of competition and services offered by an operator is highly dependent on how well it is interconnects with rival providers.
- Hence, Telecom Regulatory Authority of India (TRAI) has recently decided to further tighten rules governing interconnection to ensure better compliance.
- The regulator has made it mandatory for operators to offer interconnection within 30 days (earlier it was 90) of receiving a request from another operator.
- Which previously there was no financial cost for non-compliance; TRAI has now prescribed a penalty of up to Rs.1 lakh per day for violating operators.
- Also, to stop unilateral disconnection of points of interconnection, the TRAI has also prescribed conditions under which interconnections can be cancelled.

Way Forward

- **Dispute Resolution** - TRAI has dropped the idea of setting up a "Coordination Committee" to resolve issues between operators.
- Rather, operators will have to continue to approach "Telecom Dispute Settlement Appellate Tribunal", which has proven to be time consuming.
- **IP Level Interconnections** - As data networks grow, voice calls will also switch to internet-based modes, which require separate interconnections.
- But TRAI hasn't laid down the building blocks for migrating from the current circuit switch level interconnection to the Internet Protocol level.

Addressing Water Footprint

Context: Water management and resource development must also be included in the corporate agenda, just like the carbon footprint.

What is the need?

- **Water footprint** - Industrial societies thrive on an extensive use of water to run their manufacturing facilities.
- These industries discharge large quantities of water from their sites and leave a worrying water footprint.
- **Water crisis** - A recent report has pointed out that around 75 million Indians have no access to safe drinking water supply.
- Water supply in India for long has been dependent on two principal sources — rivers and groundwater.
- Sadly, Indian rivers continue to shrink as a result of gross industrial pollution.
- Also, growth in population over the decades has resulted in the depletion of groundwater resources, leading to a water crisis.
- Indian government has announced a water index to rank states on the merit of their water management capabilities.
- Beyond this and other such government efforts towards water conservation, India needs the contribution of the industrial entities.

Corporate Contribution

- **Companies** - Companies need to first assess their water footprint or the total volume of freshwater that is used for company operations.
- Corporates can adopt a three-pronged sustainability approach of reducing, recycling and replenishing water resources.
- Metering, monitoring and controlling water usage at manufacturing facilities and commercial establishments can be a good start.
- By proactively reducing the water footprint, companies can also turn water into a competitive advantage.
- **CSR** - Investments must be channelized towards Corporate Social Responsibility endeavors.
- Corporates can educate rural communities on traditional methods such as rainwater harvesting and groundwater restoration.
- They can also focus on empowering farming communities with water efficient techniques like drip irrigation.
- **Collaborations**- Partnering with private institutes and universities for research on water management and resource development will be critical.
- Fostering relations with local water administrators and researchers could also be promoted.
- **Assessment** - The objectives of an organization should be aligned in consideration with wider values of people, planet and profit.
- Accordingly, corporates need to revise the way an organization's success is measured.
- It should necessarily include the sum total of all actions in economic, environmental and social areas.
- The assessment should take into account, both positive and negative impact by adopting strategic projects and measuring the impacts.
- The renewed emphasis on clean water and sanitation are essential for achieving the sustainable development goals.
- It is also crucial in resolving the looming water crisis and keeping up the government's 'water for all' promise.

Facilitating Inter-State Mobility

Context

- Despite the absence of any explicit barriers to mobility, India's inter-state mobility is relatively lower.
- Analyzing the reasons behind and making necessary policy alterations are essential to facilitate mobility to seek opportunities.

Internal Migration Pattern in India

- Internal migrations rates across states are **relatively lower in India** than in other many other countries.
- Roughly, **internal migrants** represented 30% of India's population as per 2001 Census.
- However, two-thirds of these were **migrants within districts**.
- There is a higher rate of migration from faraway districts of the same state than from nearby districts of a different state.
- Moreover, more than half of them were **women** migrating after marriage.
- Notably, states with higher rates of access to higher education and public employment have relatively less student and skilled migrants moving out.
- The **rate of migration** has almost **doubled** between 2001 and 2011 relative to the previous decade.
- However, labour migrant flows within states are much larger than flows across states.
- Evidently, state borders remain impediments to mobility though there are no explicit barriers to inter-state mobility in India.

Cause of Internal Mobility

- Barriers to internal mobility include **physical distance and linguistic differences**.
- Differences in **economic and social features** among different states are also among notable reasons.
- Despite these, there are a range of other factors that works as disincentives to inter-state migration.

- **Social Benefits** - A majority of social entitlement programmes are administered by state governments, even when they are centrally funded.
- In essence, many of the social benefits and entitlements are not portable across state boundaries.
- Access to subsidized food through the public distribution system (PDS) is a major reason.
- Evidently, in states where the PDS offers higher levels of coverage, unskilled migrants are less likely to move out-of-state.
- Even admissions to public hospitals, schools, etc. are administered through ration cards issued and accepted only by the home state government.
- **Education** - Many universities and technical institutes are administered by state governments.
- Notably, state residents get preferential admission in these through “state quota seats”.
- The “domicile certificates” necessary for this require continuous residence in the state, ranging from 3 to 10 years in different states.
- **Employment** - Though accounting for only about 5% of total employment, public sector employs more than half of the higher-skilled.
- However, in most states, more than three-fourths of government jobs are with the state rather than the central government.
- Here again, state domicile is a common requirement for jobs in state government entities.
- Moreover, states are increasingly expanding and promoting the “jobs for natives” policies in the recent period.
- E.g. Karnataka recently directed both public and private sector firms to reserve 70% of their jobs for state residents or would lose access to state government industrial policy benefits.

Way Forward

- India's “fragmented entitlements” should be integrated to offer citizens access to social benefits irrespective of the residing state.
- This is essential to boost growth and check poverty, by facilitating access to productive opportunities available across the country.
- A nationally portable identity could prove to be an important step.
- States should rationalize the discriminatory policies and become more inclusive in offering employment and education.

Comparing PMI and IIP

Context

- The PMI for December 2017 is a highly encouraging 54.7, which along with a 6.8% growth in the “core sector” also indicates a big positive for IIP.
- While PMI and IIP have both been used for gauging the health of the economy, it is prudent to understand what they actually stand for.

Purchasing Managers Index (PMI)

- PMI is calculated on the basis of information received on a monthly basis from companies on various factors that represent demand conditions.
- A standard questionnaire is administered to 500 private companies (PSUs are excluded) and the comprehensive score is arrived at.
- 5 parameters in PMI are - new orders (30% weightage), output (25%), employment (20%), supplier's delivery (15%) and stock of purchases (10%).
- The respondents can either give a “Positive, Neutral or Negative” response and each response is marked as “1, 0.5 or 0” on the score card respectively.
- Hence, if there is unanimous positivity across all parameters, then the PMI score would be 100 (percentage) and a unanimous negative would mean 0.
- While an absolute score of 50 would mean neutrality, anything above it is perceived as an improvement and less than it would mean deterioration.
- Intuitively, it can be seen that the purpose of the PMI is to indicate some degree of confidence level in manufacturing based company perspectives.
- Notably, as PMI is a market sentiment tracker that compares the current month with the previous, it is season sensitive.

Index of Industrial Production” IIP

- IIP measures actual production output across the industrial sector.
- Significantly, IIP for December 2017 would be reckoned with the same month in 2016, unlike PMI, which is monthly comparison.
- As it is a comparison over the previous year, it is season neutral.
- Therefore, as the basis of IIP and PMI are different, a comparison between the two is really not appropriate.
- However, as the PMI is released on the 1st of every month and the IIP is known on the 12th, the PMI score is assumed to be a precursor to the IIP.

- But the correlation between PMI and IIP isn't strong and the relationship between the two variables is quite low and insignificant.

Reason for the Lack of Correlation

- A sample of 500 companies for PMI is too small to be representative of what is happening at the aggregate level.
- Also, as these companies tend to be the bigger ones, SMEs are under-represented in PMI, whereas IIP is more comprehensive.
- The responses in PMI are of an 'either or' variety and is not graded to any number, which inherently marks 2% positivity and 20% positivity as same.
- Also, PMI has only one component, namely "output" (with a weight of 25%) which can be directly related with IIP.
- Also, even with the PMI new orders increasing, it would not necessarily mean that output would increase in a subsequent period.
- Exclusion of the PSUs is another significant aspect as there is a very high contribution by this segment, especially in capital goods and infra areas.

Preference to IIP

- Hence, it may be said that the PMI is not a leading indicator of the state of industry which is better represented by IIP growth.
- While the IIP growth calculation has its challenges, it is to be noted that the number is used for GDP calculations to account for the unorganized sector.
- But nonetheless, there is room for both concepts in the set of economic indicators that have to be tracked continuously.

Merger of ONGC and HPCL

Context

- The government is prodding ONGC to buy HPCL (both are PSUs) to improve efficiency in the oil and gas sector.
- But the move seems to lack logical thinking and a vision

Issues with this Integration

- Many of the world's oil majors are integrated companies that are involved in extraction as well as refining.
- While integration does offer advantages, merely merging PSUs isn't going to significantly change anything.
- Large mergers are always tricky and many have failed.
- Also, merger would've made sense if either ONGC or HPCL was more efficient than that of their private sector rivals, which isn't the case.
- Significantly, they are bound by various rules and procedures that restrict their performance, just like all other PSUs.

Contradictions

- **Disinvestment** - There is very little competition in the oil marketing space and hence, privatising HPCL would have been a much better idea.
- But the government hasn't considered it, as ONGC's buying program will itself help to meet the disinvestment targets without actual privatization.
- **HPCL's Valuation** - Significantly, ONGC has done an internal evaluation of HPCL that values it at 45% more than what its market capitalization is.
- This effectively means that ONGC's valuation experts think that HPCL is more valuable than Reliance Refineries, which is odd.
- Notably, apart from its more modern refineries that have better processing capabilities, Reliance also has a robust crude sourcing profile.
- **ONGC's Profile** - While the government is asking ONGC to acquire HPCL, it is taking away some of ONGC's oil/gas fields and giving them to private firms.
- Thus, while the government thinks that an ONGC takeover will increase HPCL's profitability, it also feels that ONGC isn't doing its current job well.

INTERNATIONAL AFFAIRS

Anti-Government Protests in Iran

Context

- Amid deep economic and political crisis, Iran is presently seeing its largest public uprising since the 2009 "Green Movement".
- Being a significant regional power, the unrest is making vibes in larger international relations.
- The current wave seems demographically unique, politically neutral, and has ushered in a new era of uncertainty to the Islamic Republic.

Recent Developments

- The protests began in Mashhad, Iranian city.
- They were initially focused on deteriorating economic situation, official corruption and lack of social freedoms.
- However, it gradually turned into political rallies and expanded to several cities.
- Notably many were killed and hundreds of people have been arrested.
- On the other hand, tens of thousands of people took part in counter-demonstrations backing the clerically overseen government.
- Notably, President Hassan Rouhani acknowledged the public's anger over the deteriorating economy.
- However, he strongly condemned the resort to violence and showed tough resistance through the security forces.

Uniqueness with the Recent Uprising

- While all previous Iranian uprisings were urban middle class phenomenon, the current one is driven by lower working classes in small towns.
- It started out with strong economic grievances of the downtrodden who've suffered due to economic mismanagement and political alienation.
- Significantly, their economic frustrations have got channelized against Iran's aggressive foreign interventions in Syria and Yemen.
- Initially, hard-liners within the Iranian power elites hoped that protests would derail the reformist government of President Rouhani.
- But the protests have spiralled out of control and seem to be challenging the very basis of the state and not just the government.
- Hence, alongside issues of rampant inflation, corruption, and joblessness, the very legitimacy of the Islamic revolution of 1979 has come under scrutiny.
- This signifies the emergence of a new young generation that doesn't connect to the euphoria of the 1979 and the generational gap seems to be widening.
- Events across cities reveal that despite iron fisted oppressive actions, the tension between discontented youth and the regime isn't diffusing.

Demographic Factors

- In the last 30 years, Iran underwent a major socio-political evolution, which has thrown up new challenges with no immediate solution.
- Significantly, its increasingly young population has become more educated, secular and rebellious due to the rapid expansion of university education.
- The demographic "youth bulge" combined with urbanisation, and increasing unemployment rates (40%) provided ripe sociological conditions for unrest.
- Hence, alienation was building up in the essentially young and educated citizenry (including women) with no political, economic or social future.
- Hence, Iran became a society divided between rich supporters of the regime and poor rebels with no ideology and no political leaders.
- While the theocratic setup has been seeking to strike the appropriate balance in governance for long, it has never before been so categorically challenged.

US Role in Iran

- Then US President Obama, to counter the Bashar al-Assad regime in Syria, encouraged Gulf rulers to fund the Sunni groups in Syria.
- This had only worsened the chaos and ultimately led to the emergence of the more dangerous ISIS.
- Subsequently, the US believed in Iran as a force with the will and ability to counter this radical Islamist force, though Iran was not its traditional ally.
- It thus committed air assets and some military advisers to Iran.
- The 2015 Iran-P5 nuclear deal was also an attempt to empower Iran.
- The deal eventually emboldened Iran to gather Shia allies extending west from Iran to the Mediterranean.
- Eventually, Russia joined as well, to grab an opportunity to regain influence in West Asia.

US Decision a Dangerous Precedent

- Failure of the U.S. to respect an international agreement to which it's a signatory would set a dangerous precedent.
- The Iran nuclear deal is a fairly successful deal as it prevented, by peaceful means, a country with potential nuclear capabilities from developing weapons.
- Also, international agencies have repeatedly certified that Iran is fully compliant with the terms of the agreement right from its coming into effect.
- Notably, the deal belongs to the international community in its entirety, and not just to one or two countries.
- A decision to scrap or weaken the deal would be undermining the global non-proliferation regime and international institutions.

- Also, given the rising nuclear threat from another country, North Korea, the international community cannot afford dismantling a successfully working nuclear agreement.

Implication

- The US backing of Iran, certainly strained the relations with its traditional allies Saudi Arabia and the Gulf Cooperation Council (GCC).
- Iranian ascendancy has also made Israel nervous, as it perceives an existential threat from Iranian ally Hezbollah in Lebanon.
- Obama was thus keeping many banking sanctions operational to balance these concerns.
- This was on the pretext that they are related to Iran's support to terrorist groups like Hezbollah.
- President Rouhani managed the internal consensus for the nuclear deal by convincing that foreign investment and technology would flow.
- Unfortunately, that never happened, as the residual US sanctions still scared investors and the cash-rich GCC members.

International Implications of the Recent Protest

- **US** - Since becoming the US President, Trump had been critical of the Iran nuclear deal.
- He had recently declined to certify that Iran was complying with the nuclear deal.
- The President and Vice-President of the United States, in their tweets, have recently incited Iranians to engage in disruptive acts.
- Iran has thus charged US of crossing limits in international relations by supporting anti-government protesters.
- Top officials within Iran are also attributing the protests to foreign money, intelligence and foreign forces.
- **Russia** - Russia has urged the United States to not interfere in what it calls Iran's "domestic affairs".
- Russia also firmly expressed that the Iran nuclear deal was not to be corrected and be continued.
- The recent protest, in all, is reflective of the earlier Arab Spring for rooting out the governments in many West Asian countries.
- It is also brewing as a potential focal point for world countries for alliances and counter-alliances.

Political Implications

- The recurrent street protests in Iran are indicative of the meltdown of the theocratic ideology on which the republic was founded in 1979.
- This is significant, as the present phase is led by the Iranian poor, who were thought to be the bedrock of the regime.
- Notably, the Green Movement of 2009, which had a strong elite feed, also challenged the theocracy from a cultural perspective.
- But strangely, the usual reformist voices stayed low in the current happenings and were totally absent in leading or participating in them.
- Also, barring an erratic statement by Mr. Trump, international reactions have largely been muted and non-partisan.
- This was probably due to the fear of internal tensions building up into a full blown civil war in Iran, like in Syria.
- Notably, an unstable Iran won't be liked even by Iran's arch-rivals (Saudi Arabia, Israel) due to its potential catastrophic fallouts beyond Iran.

Dialogue Between the two Koreas

In News: Despite multiple challenges, resumption of dialogue between the North and South Korea has reignited hopes of a possible ease in tensions.

Scenario Developed

- North Korea's latest ballistic missile launches and nuclear explosions have raised global alarm over the region's safety for travel and tourism.
- South Korea wants to reduce tensions immediately, to ensure the safe conduct of the approaching winter Olympic Games that it is hosting next month.
- Hence, Seoul sees the confirmation of North Korean participation in the games and parallel peace talks as vital for the successful conduct of the games.
- Simultaneously, North eyes an opportunity to get de-facto recognition as a nuclear state, which is a vantage point for negotiating for lifting sanctions.
- Hence, talks between Seoul and Pyongyang has resumed after two years.

Significant Compromises

- South Korean President Mr. Moon, has been a staunch advocate of a negotiated resolution of the North Korean nuclear stand-off.
- On that note, the U.S. and South Korea had agreed for delaying their joint military exercises in exchange for a freeze in North Korea's nuclear program.
- Notably, the joint military exercise was an irritant for both Pyongyang and Beijing, as both saw them as interference in their backyard.

- China even imposed an unofficial blockade on South Korean trade and tourism for a while after the installation of US's THAAD missiles in its territory.
- While denuclearization on the Peninsula is still far off, as talks have resumed after two years, it has created considerable hope.

Suspension of Security Assistance to Pakistan

In News: U.S. recently said that it would be suspending most of its security assistance to Pakistan until it “takes decisive action” against terror groups.

Significance

- The total amount in question could exceed \$1 billion dollars.
- The decision will delay, and perhaps eventually deny, pending payments to Islamabad.
- This includes both payments under the State Department's Foreign Military Financing and under the Coalition Support Fund, which involves reimbursement for Pakistan's logistical support in the Afghanistan war.
- However, civilian assistance programmes are not included.
- \$255 million of foreign military financing (FMF) has already been withheld for a few months.

Can this be a true leverage?

- Some believe that it can only be a minimal coercive leverage
- This is because
 - The US continues to rely on Pakistan for the ground and air supply routes to Afghanistan, and
 - Any financial harm that the US inflicts on Pakistan will be cushioned by CPEC.
- But it is to be noted that the security aid is not the only leverage the US has.
- US also has its influential role in international financial institutions like the International Monetary Fund (IMF) and the World Bank.
- The Pakistani army is prone to seeking bailout packages from the IMF.
- Widening trade deficit, high public debt and low foreign exchange reserves may also push Pakistani government in this year towards these institutions.
- The US also has tools like visa denial and freezing of assets of senior officers in the Pakistan army and the Inter-Services Intelligence (ISI) involved with terrorist outfits.
- In the past, the fear of sanctions by the inter-governmental Financial Action Task Force (FATF) has forced Pakistan to ban fund-raising by organizations proscribed by the UN.
- A concerted set of moves under a tighter, overarching sanctions regime might asphyxiate Pakistan's illicit activities.
- As far as CPEC is concerned, it is yet to be seen whether it will kick-start the virtuous cycle of high investment and greater productivity or push Pakistan into a debt trap.

US Special Watch list

- US places Pakistan on 'Special Watch List' for 'severe violations' of religious freedom, by this Pakistan was the first country to be put under the newly-formed list.
- US have a separate list for the countries which violates International religious freedom act known as 'Countries of Particular Concern' (CPC).
- The Special Watch List is for countries that engage in or tolerate severe violations of religious freedom but may not rise to the level of the CPC.
- The Special Watch List designation is being seen as a step below designating it as Country of Particular Concern, which would have automatically kicked in economic and political sanctions.

Institution Building for Achieving SDGs

Context

- UN's "Sustainable Development Goals" (SDGs) has inspired many and there seems to be a global consensus on them beyond governments.
- The efforts of various stakeholders need to be effectively coordinated for achieving better outcomes.

Large Scale Coordination

- SDGs have been observed to prominently figure in “business conferences, civil society organizations and government reports”.
- The 17 SDGs fall into four groupings namely:
 - **Human Development** – “Poverty, hunger, health, education, and gender equality”.
 - **Environment** – “Water, energy, climate action, life below water, and life on land”.
 - **Economy** - “Decent work, economic progress, reduced inequalities, responsible consumption and production, and industry innovation”.
 - **Structure Building** - “peace, justice and strong institutions” and “partnerships for growth”.
- Problems such as persistent poverty and inequality, poor health, and environmental degradation are systemic issues.
- They have multiple interacting causes and can't be solved by any one actor.

- Hence, strong institutional partnership and cooperation as outlined in the last two SDGs are essential.

Current Management Challenges

- Philanthropists and corporates (through CSR) are giving back to society in programmes aligned with the SDGs.
- Once they start, they realize the need for partnering NGOs who have local knowledge and have established community and government relationships.
- While all stakeholders recognize the need for effective partnerships, effective management practices remain elusive.
- But governments and CSR initiatives tend to construct centralized, top-down programmes to achieve scale and efficiency simultaneously,
- Hence, there is inherent strain in deploying best management practices and the typical “command and control” dynamics continue to dominate.
- This approach works with a “one size fits all” mindset and also hinders effective ground coordination due to the complicated command structure.
- Also, the ultimate beneficiaries aren’t adequately represented in this module and “people-centric design” takes a backseat.

Importance of Institution Building

- SDGs are a realization that humanity cannot postpone much longer the development of new strategies for the management of the commons.
- Humanity’s progress is a history of evolution of institutions that have enabled societies to achieve what they want.
- Notably, the demand for increased sea trade saw the birth of new forms of business institutions such as the limited liability company in the 17th century.
- Also, the idea of an equal society gave rise to elected parliaments world-over.
- Hence, faster progress towards the SDGs will require new models of enterprises in which the people must have a much greater say in governance.

Institutional Changes Required

- The very conception of SDGs requires institutions that enable large-scale people participation, which is in line with the democratic norms.
- According to SDGs, every individual has fundamental needs such as health and education, and political rights in the governance.
- But expenses are incurred for ensuring that all get access to these services.
- Hence, these calls for building economically sustainable business modules like Co-operatives and Social Entrepreneurship.

H-1B to Stay Intact

In News: US administration has clarified that there is no plan to tighten the H-1B visa norms.

Evolution of the Issue

- H-1B is a gateway for the U.S. to attract high profile educated white-collar workforce with expertise in the fields of “Science, Technology, Education and Management”.
- The “U.S. Citizenship and Immigration Services” (USCIS) is reviewing the H-1B visa programme, and will come up with changes later this year.
- It was widely speculated that the Trump administration was planning to discontinue the provision for the extension of H-1B visas beyond 6 years.
- This created uncertainty and panic among the Indian-American community that constitutes a major chunk of the “H-1B” beneficiaries (over 7.5 lakh).
- Industry bodies, immigrant associations, Indian Embassy and even some U.S. lawmakers too protested and sought clarification from the administration.
- Hence, in a subsequent announcement to assuage anxieties, Trump administration clarified that it has no intention to curtail the H-1B extensions.
- Notably, after six year on H-1B, visa holders are put on extension, which is when they apply for Permanent Residency (Green card), which is one-step behind full citizenship.

Can the administration alter H-1B?

- USCIS is indeed said to be contemplating many regulatory changes to promote Trump’s “Buy American, Hire American” policy.
- While some minor changes to H-1B are also under consideration, it is unlikely to affect the migrant numbers and their work provisions.
- Significantly, Trump administration can change only some aspects of the H-1B programme through executive action and the rest needs congress approval.
- Notable among the H-1B provisions governed by the executive are “work permit for spouses of H-1B holders and the lottery system for beneficiary identification”.

ENVIRONMENTAL/GEOG. AFFAIRS

Pesticide Management

In News: Union government is working with Pesticide management bill 2017 to replace archaic Insecticides Act, 1968.

Impacts of Unregulated Pesticide Usage in India

- Recently within a few weeks, about 50 farmers have died due to use of pesticides in Maharashtra and over 1,000 have suffered critical ailments.
- The use of imported, untested pesticides and unregistered technical procedures could be a reason for the deaths.
- Farmers continue to commit suicide in large numbers and one primary cause is the sale of misbranded (substandard, spurious, expired) pesticides which disappoints them during harvests.
- Along with pesticide misuse the inordinate use of antibiotics in the poultry and dairy industry is a major reason for human diseases, monumental species loss and environmental damage.

Flaws with Existing Regulations

- The larger pesticide companies (brand owners and marketing agents) generally outsource production to smaller manufacturers.
- The quality degradation happens in the outsourcing stage and the smaller manufacturers can't be prosecuted because the Central law only stipulates prosecution of the manufacturer.
- When the license to sell pesticides is issued, applicants declare a "responsible person" to be held accountable for violations.
- The person is usually a low-paid employee, who over time becomes unreachable, even serving the prosecution notice becomes difficult.
- Most pesticide samples simply don't fail the test, this is because of conniving officers who don't follow procedures and for a "sample failure" to be legally valid, samples have to fail consecutively.
- The cumbersome documentation procedure allows the second sample to expire before it's tested, rendering the process invalid which makes the crime intractable.

Measures Need to be Encompassed in New Regulation

- The declaration of responsible person, therefore, has to be among the top five financial beneficiaries of the firm and the fine should be computed as a percentage of the total sales in the state.
- Mandatory e-documentation (as per the IT Act, 2000) for agriculture departments will expedite the process and increase transparency.
- Currently, only a magistrate can order suspension of pesticide sales over an evident violation, these powers need to be delegated to a pesticide inspector.
- The Central Insecticide Board and Registration Authority should be restructured and many of its powers be transferred to the states.
- All agriculture-input packaging must mandatorily have bar code giving product information such that the bar code will sync with the GST and the e-way bill.
- States should make retailers log all agriculture input sales onto state government servers, allowing for traceability from the factory floor to farmer's field and for regulation enforcement.
- Such digitization at the ground-level will facilitate a farmer grievance Redressal mechanism to make the system accountable.

Keoladeo National Park

- It is Located in Bharatpur district, the eastern part of Rajasthan.
- The park is spread over nearly 30 sq.km which comprises many artificial and seasonal lagoons.
- Keoladeo attracts several migratory birds that make the region their breeding and wintering grounds.
- It is an UNESCO World Heritage and also a Ramsar site.
- The Siberian crane is one of the rare species that was spotted here till about the turn of the century.
- It habitat for nearly 365 species of birds, including raptors and waterfowls.
- Animal such as Jackals, Sambar, Nilgai, wild cats, hyenas, wild boar, porcupine and mongoose can be found in the region.

Ramsar convention

- The Convention on Wetlands called the Ramsar Convention is the intergovernmental treaty.
- It provides the framework for the conservation and wise use of wetlands and their resources.
- The Convention was adopted in the Iranian city of Ramsar in 1971 and came into force in 1975.
- Since then, almost 90% of UN member states, from all the world's geographic regions, have acceded to become "Contracting Parties".
- The Convention uses a broad definition of wetlands, It includes all lakes and rivers, underground aquifers, swamps and marshes, wet grasslands, Peatlands, oases, estuaries, deltas and tidal flats, mangroves and other coastal areas, coral reefs, and all human-made sites such as fish ponds, rice paddies, reservoirs and salt pans.

No Development Zone

- The River Ganga (Rejuvenation, Protection and Management) Authorities Order, 2016 provides that the bank of River Ganga, its tributaries or the active flood area of them shall be construction free zone.
- It also prohibits construction of any structure for residential or commercial or industrial or any other purposes.
- The National Green Tribunal has directed to identify and demarcates the flood plains of river Ganga from Haridwar to Unnao.
- Once the demarcation of flood plain is completed, 100 metres from the edge of the river would be designated as no development/construction zone.
- Further, Ministry of Environment Forests & Climate Change also circulated draft notification on “River Conservation Zones” in 2015 to all States.
- Ministry of Water Resources, River Development & Ganga Rejuvenation has taken up the matter with all the states. Only Uttarakhand, Rajasthan and Manipur have enacted the Legislation.

Cryosphere

- Cryosphere refers to the frozen part of the earth surface.
- It might be comprised of snow, river and lake ice, sea ice, glaciers, ice shelves and ice sheets, and frozen grounds.
- This region plays a major role in the Earth’s climate system through its impact on the surface energy budget, the water cycle, and sea level.
- It is a fundamental control on the physical, biological and social environment over a large part of the Earth’s surface.
- Cryosphere is a natural integrator of climate variability and provides one of the most visible signatures of climate change.

National Clean Air Programme

- Ministry of Environment, Forest and Climate Change has formulated National Clean Air Programme (NCAP) as a medium term national level strategy to tackle the increasing air pollution problem across the country.
- The overall objective is to ensure a comprehensive management plan for prevention, control and abatement of air pollution.
- The NCAP focuses on collaborative and participatory approach covering all sources of pollution and coordination between relevant Central Ministries, State Governments, local bodies and other stakeholders.
- A separate component on ‘Technology Assessment Cell’ has been envisaged under NCAP to evaluate the technologies for prevention, control and abatement of air pollution.

Bomb Cyclone

- It’s a weather term that applies to a massive winter storm that struck off the U.S. Southeast, the storm has dumped freak snow in this region.
- This storm will usually stay out to sea and blow with high winds gusts exceeding 100 kmph.
- Bomb cyclones draw air from Polar Regions after they leave it means extra cold Arctic air this is based on polar vortex.
- Storm intensity is measured by central pressure the lower the pressure, the stronger.
- A storm is considered a “bomb” when the pressure drops rapidly at least 24 millibars in 24 hours, Millibar is the unit of atmospheric air pressure.

Polar Vortex

- The polar vortex is a large area of low pressure and cold air surrounding both of the Earth’s poles.
- It always exists near the poles, but weakens in summer and strengthens in winter.
- The term “vortex” refers to the counter-clockwise flow of air that helps keep the colder air near the Poles.
- Many times during winter in the northern hemisphere, the polar vortex will expand, sending cold air southward with the jet stream.
- This occurs fairly regularly during wintertime and is often associated with large outbreaks of Arctic air in the United States.
- Polar vortex is not a feature that exists at the Earth’s surface and it is not confined to the U.S.
- Portions of Europe and Asia also experience cold surges connected to the polar vortex.

Nayachar Islands

- Nayachar is a newly emerged island with mangrove ecosystem in the middle estuary of the Hooghly River in West Bengal.
- This land mass was created in the Indian Sunderbans by river silt deposits, and remained largely submerged, rising occasionally above the water level.
- Till 1990 it was completely barren, with hardly any plant or animal species, at present there are 151 animal species on the island, making it a rare case in ecology.

- The natural succession of species on the island has been aided by the inundation of water during tides, and the soil brought from other places by fishermen.

India's State Action plan on Climate Change

- India's State Action Plan on Climate Change is implemented by Ministry of Environment, Forest and Climate change.
- It supports the integration of national climate change goals into subnational policies.
- India has committed to meet its current target of 33% reduction in emission intensity of the 2005 level by 2030, by generating 40% of its energy from renewables.
- States are important for the realisation of this goal and they are considered as Sub national modules.
- The Under2Coalition, a MoU by subnational governments to reduce their greenhouse gas (GHG) emissions towards net-zero by 2050, is generating a unique precedent for bold climate leadership, with its member states and regions surpassing 200 in number.
- Currently, Telangana and Chhattisgarh are signatories to this pact from India.

TECHNOLOGICAL AFFAIRS

Genome Technology and Prospects for India

Context

- Genome technology is revolutionizing the medical industry.
- India needs to use of its scientific resources for genetic research to leverage them.

Genome

- A genome is an organism's complete set of DNA, including all of its genes.
- Each genome contains all of the information needed to build and maintain that organism.
- In humans, a copy of the entire genome more than 3 billion DNA base pairs is contained in all cells that have a nucleus.

Recent Developments in this Technology

- DNA stores a person's hereditary information and gets transmitted from parents to children over generations.
- Recent developments in genome technology have led to Personalized medicine by extracting particular information from one's DNA.
- This technology helps in building individualized medicine based on the precise information stored in each human's DNA (their genome).
- At present the cost of building such treatments are very affordable due to well reformed gene editing techniques and the age of genomics-informed medicine is now within sight.

How India can make use of these developments?

- The fact is that both genetic data and biological samples are easily transported across borders and if Indian regulation on this technology is short-sighted, it will cause Indian genomics to move abroad.
- Thus India needs to collect information about the genetics of its population and train manpower capable of interpreting it.
- The information can be gathered from a large and sustained collection of data fully sequenced individual genomes along with medical histories for the individuals.
- A data bank needs to be established which can collect and store kind of information on Indian genomes.
- Government need to push academic institutions, the existing health-care industry, the IT industry and the nascent biotechnology industry to explore these avenues.

Prospects for India

- India is more genetically diverse with something like 5,000 ethno-linguistic and religious groups all of which probably have some degree of genetic distinctiveness.
- The genetic implication of this is that there are likely to be many recessive diseases stemming from single genes specific to individual groups that can be identified.
- This knowledge could then also be quickly applied to the task of managing diseases in these groups as well as be used for genetic counseling that could reduce their incidence in future generations.
- With large samples genomes genetic risk factors related to common diseases (such as heart disease that stem from many genes) that affect the health of many more individuals can be understood and cured.
- The data collected as part of these efforts will also help to uncover the basic biological function of genes and their interactions, which are not yet fully understood.
- This knowledge will be useful to humanity worldwide and also offer India a chance to claim a piece of the global medical and scientific frontier.

NASA's Mission to explore Ionosphere

- NASA has announced two missions to explore the little-understood area of 96 km above Earth's surface.
- The two missions Global-scale Observations of the Limb and Disk (GOLD) and Ionospheric Connection Explorer (ICON) will team up to explore the ionosphere.
- ICON will be in low-Earth orbit, at 560 km above Earth, like a close-up camera while GOLD will be in a geostationary orbit over the Western Hemisphere, about 35,398 km above the planet's surface.
- It will help in full-disk view of the ionosphere and the upper atmosphere beneath it every half hour.

Ionosphere

- The ionosphere is defined as the layer of the Earth's atmosphere that is ionized by solar and cosmic radiation.
- It lies 75-1000 km (46-621 miles) above the Earth, the thickness of the ionosphere is quite tiny compared with the size of Earth.
- Due to high energy from the Sun and from cosmic rays, the atoms in this area are "ionized," and are therefore positively charged.
- These are the layers of near-Earth space and are home to radio signals used to guide airplanes, ships and Global Positioning System satellites.

Reduction in Ozone Depletion

- The scientists have observed for the first time that levels of ozone-destroying chlorine are declining, resulting in less ozone depletion.
- There has been an international ban on chlorine-containing human made chemicals called chlorofluorocarbons (CFCs).
- Measurement show that this has resulted in about 20% less ozone depletion during the Antarctic winter than there was in 2005.
- Stratospheric ozone protects life on the planet by absorbing potentially harmful ultraviolet radiation that can cause skin cancer and cataracts,
- CFCs are long-lived chemical compounds that eventually rise into the stratosphere.
- In the long months of polar winter, chemical reactions take place in Polar Stratospheric Clouds that could not take place anywhere else in the atmosphere.
- These reactions convert the inactive chlorine in CFCs into more active forms, especially chlorine gas (Cl₂).
- When the sunlight returns to the South Pole in October, UV light rapidly breaks the bond between the two chlorine atoms, releasing free chlorine.
- Chlorine atoms go on to destroy ozone molecules, resulting in Antarctic ozone hole.
- The measurements are made by Microwave Limb Sounder (MLS) aboard the Aura satellite, which has been monitoring continuously since 2004.

CFC and ozone depletion

- Chlorofluorocarbons (CFCs) are long-lived man-made chemical compounds that eventually rise into the stratosphere.
- There they are broken apart by the Sun's ultraviolet radiation, releasing chlorine atoms that go on to destroy ozone molecules.
- Recent findings proved an international ban on CFCs, has resulted in about 20% less ozone depletion.
- The Montreal Protocol and its amendments have banned the use of ozone destroying chemicals and the rate of ozone depletion seems to have slowed.
- Scientists used data from the Aura satellite to determine how ozone and other chemicals have changed year to year.
- Aura is a NASA mission to study Earth's ozone, air quality, and climate and conduct research on the composition, chemistry, and dynamics of Earth's atmosphere.

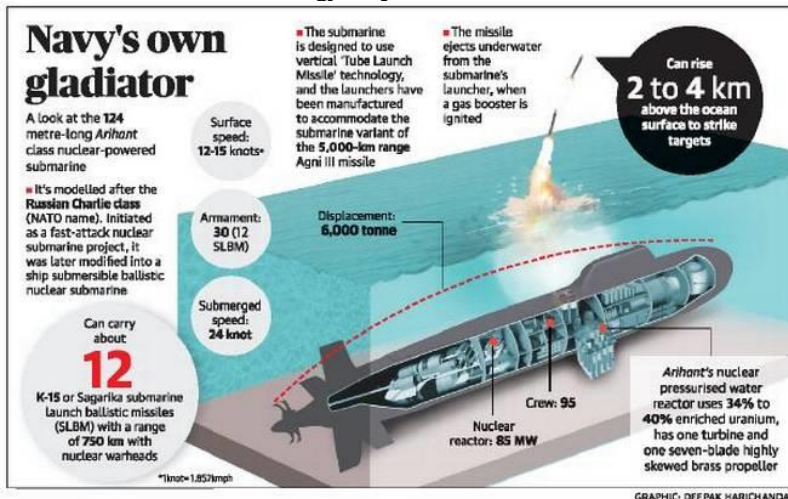
Tabby's star

- Tabby's star is the "most mysterious star in the universe" as it kept dimming and brightening irregularly, following no pattern.
- Officially called KIC 8462852, the star is 1,000 light years away from the Earth and 1,000 degrees hotter than the Sun.
- There was a 20% decrease in brightness and the dip lasted from five to 80 days.
- A recent report showed that the dimming is caused by ordinary dust particles, the majority of them at a size less than one micrometre.

INS Arihant

- INS Arihant is India's only operational ship submersible ballistic nuclear (SSBN) asset.
- It is its most dependable platform for a second-strike.

- This is because the other options, land-based and air-launched, are easier to detect.
- Arihant has been immobilised after 'accident' 10 months ago
- It can stay undetected deep underwater for long periods and ranges far and wide.
- INS Arihant and other nuclear launch platforms are operationally handled by the Strategic Forces Command.
- They report to the Nuclear Command Authority chaired by the Prime Minister.
- However, over 100 nuclear warheads are not mated with missiles or bombs and remain in civilian custody of the Atomic Energy Department and the DRDO.



Pratyush

- Pratyush is an array of computers recently unveiled in India.
- It can deliver a peak power of 6.8 petaflops.
- One petaflop is a million billion floating point operations per second and is a reflection of the computing capacity of a system.
- The machines will be installed at two government institutes: 4.0 petaflops HPC facility at Indian Institute of Tropical Meteorology (IITM), Pune & 2.8 petaflops facility at the National Centre for Medium Range Weather Forecast, Noida.
- Pratyush is also the fourth fastest supercomputer in the world dedicated for weather and climate research.
- A key function of the machine's computing power would be monsoon forecasting using a dynamical model.
- With the new system, it would be possible to map regions in India at a resolution of 3 km and the globe at 12 km.

MISCELLANEOUS

Issues faced by Old Age Population

Context

- India has a serious problem of growing elderly population.
- India lacks in policy measures to address the problems of elderly.

Status of Elderly Population in India

- According to the 2011 Census, there are 104 million elderly persons (aged 60 years or above) in India.
- The proportion of elderly was 8.6% in 2011 and is rising.
- Also, the average Indian can expect to live at least 18 years beyond the age of 60, which means the dependency ratio is also rising.

Status of Dependent Population in India

- According recent estimates 45 per cent of elderly males and 75 per cent of elderly females are currently fully dependent on others.
- India's ageing population is expected to grow at more than double the rate of the general population.
- By 2050, India will have 21.16 per cent of the population above the age of 60 as compared to 60.34 per cent aged between 15 and 59 years.

Problems Faced by the Elderly Population

- The joint family system, which sustained the elderly, is virtually a thing of the past.
- This leaves a rising number of the elderly even those who were at least middle class in their working years in awful straits.
- There is no institutional support for the elderly; the cost of both living and Medicare is rising, eroding their savings, and the old-age pension.

- Due to steadily falling interest rates on bank deposits steadily most middle class elderly actually depend on elderly pension to sustain them.

Existing Government Mechanisms

- Indira Gandhi National Old Age Pension Scheme has been paying Rs. 200 a month as old-age pension.
- A sum which has remained unchanged since 2006, when it was introduced.
- Due to inflation the value of this has depreciated to under Rs. 100 over the past 11 years, less than a day's notified minimum wage.
- Union government passed a law in 2007 (the Maintenance and Welfare of Parents and Senior Citizens Act) to make maintenance of parents/senior citizens by children/relatives obligatory and justiciable through tribunals.
- The Act also provides for revocation of transfer of property by senior citizens in case of negligence by relatives, penal provision for abandonment, etc.
- But this Act has miserably failed to serve its purpose.
- The Ministry of Social Justice, the nodal ministry for the elderly, also has a grand plan called the Integrated Programme for Older Persons, which has been operational since 1992.
- But this is underfunded and languidly administered, the programme managed to reach just 23,095 beneficiaries in 2015-2016.

Problems with Indian Pension Industry

- India spends only 1.45 per cent of its GDP on social protection, among the lowest in Asia, far lower than China, Sri Lanka, Thailand, and even Nepal.
- India has an immature pension industry and a mere 7.4 per cent of the total Indian population is covered under any form of pension plans, which is alarming.
- Almost 85 per cent of Indian labour is still deployed in the informal sector, mostly as daily wage workers.
- It is extremely difficult to cover informal sector employees under a national pension scheme.
- People are also reluctant towards investing any part of their income over a large period of time.

How a micro-pension can address these concerns?

- Micro-pension is a personal retirement savings plan, in which People save a small part of their income individually during their working life that is invested collectively to generate periodical returns.
- When people retire their accumulated capital is paid out in monthly amounts.
- Such a scheme would balance between economic viability and generation of adequate returns for the participants
- Government for its part can offer a degree of financial flexibility to the low-income communities for low or no minimum contribution requirements in order to encourage membership to such micro pension schemes.
- In order to facilitate frequent deposits by the low-income groups, convenient door-to-door deposit collection can be organised by the government.

Existing Schemes for old Age Population

- **PradhanMantriVayaVandanaYojana** –PMVVY is a Pension Scheme for the senior citizens aged 60 years and above.
- Scheme provides an assured return of 8% p.a. payable monthly for 10 years which is payable at the end of each period, as per the frequency chosen by the pensioner at the time of purchase.
- The scheme is exempted from Service Tax/ GST.
- Loan upto 75% of Purchase Price shall be allowed after 3 policy years to meet the liquidity needs.
- Loan interest shall be recovered from the pension instalments and loan to be recovered from claim proceeds.
- There shall be no exclusion on count of suicide and full Purchase Price shall be payable
- **New Pension Scheme (NPS)** - It was aimed for giving people a route to avail a pension after they are retired or as a senior citizen.
- Government employees already enjoy pension, and this new scheme was introduced to enable the people from unorganised sectors to enjoy the benefits of pension.
- A contribution of a certain amount is made every month during the years when an individual is actively working.
- The money can then be withdrawn at a minimum age of 60 years.
- The NPS is slowly gaining popularity and expects huge enrolment from the informal labour segment.
- This scheme is not to be confused with National Pension System (NPS).
- **RashtriyaVayoshriYojana** - It is a scheme for providing Physical Aids and Assisted-living Devices for Senior citizens belonging to BPL category.
- The devices will help the Senior Citizens to overcome their age related physical impairment and to lead a dignified and productive life with minimal dependence on care givers or other members of the family.
- This is a Central Sector Scheme, fully funded by the Central Government, The expenditure for implementation of the scheme will be met from the "Senior Citizens' Welfare Fund".

Way Forward

- A minimum universal monthly pension of Rs. 2,000 for the elderly is quite doable for a \$2 trillion economy like India.

- Housing for the aged, particularly the aged poor, must be a priority and be made a subset of the PradhanMantriAwasYojana.
- Assisted living facilities for indigent elderly, particularly those with age-related issues like dementia, needs policy focus.
- Finance ministry can give more tax breaks, or at least removing tax on deposit interest for seniors.

IN-SHORT

Classical Language Status

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

The Benefits Include

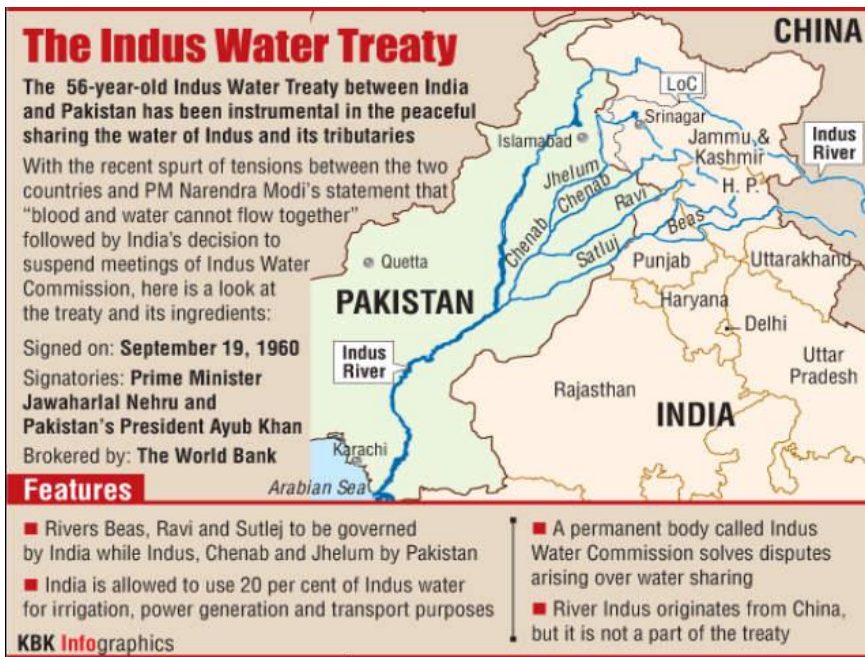
- A one-time grant of Rs 100 crore for research and development of the language.
- Two major annual international awards for scholars of eminence in the concerned language.
- Setting up of a 'Centre of Excellence for Studies in Classical Languages' can be set up.
- The University Grants Commission can be requested to create, to start with at least in Central Universities, a certain number of professional chairs for classical languages, for scholars of eminence in the concerned language.

Speed Breeding Technique

- Australian scientists have developed the world's first 'speed breeding' technique that can boost the production of the crop by up to 3 times.
- The technique is inspired by the NASA's experiments to grow wheat in space.
- It involved the use of continuous light on wheat to trigger early reproduction in the plants.
- It has largely been used for research but now is being adopted by industry.

Ujh Multipurpose Project

- The Central Water Commission (CWC) has finalised a detailed report on Ujh multi-purpose project.
- The project is to come up in Kathua district, will store around 0.65 million acre feet (MAF) of water from Ujh (a tributary of Ravi).
- It will irrigate 30,000 hectares and produce over 200 MW of power.
- India has planned this project under the mandates of Indus water treat (IWT)



CWC

- Central Water Commission is a premier Technical Organization of India in the field of Water Resources.
- It is presently functioning as an attached office of the Ministry of Water Resources, River Development and Ganga Rejuvenation.
- The Commission is entrusted with the general responsibilities of initiating, coordinating and furthering in consultation of the State Governments concerned, schemes for control, conservation and utilization of water resources throughout the country, for purpose of Flood Control, Irrigation, Navigation, Drinking Water Supply and Water Power Development.
- It also undertakes the investigations, construction and execution of any such schemes as required.

Ancient Monuments and Archaeological Sites

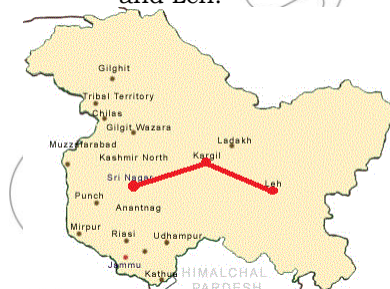
- Parliament has recently passed Ancient Monuments and Archaeological Sites and Remains (Amendment) Bill, 2017.
- The Bill permits construction of public works in 'prohibited areas' for public purposes.
- The Act defines a 'prohibited area' as an area of 100 meters around a protected monument or area.

The Negotiable Instruments (Amendment) Bill, 2017

- The Bill was introduced in Lok Sabha recently.
- It seeks to amend the Negotiable Instruments Act, 1881.
- A negotiable instrument is a document that promises payment to a specified person. E.g Cheque
- The Act defines promissory notes, bills of exchange, and cheques.
- It also specifies penalties for bouncing of cheques, and other violations with respect to such negotiable instruments.

Zojila Tunnel

- It is an upcoming project in J&K which aims at providing all weather connectivity between Srinagar, Kargil and Leh.



- The construction of the tunnel has been approved recently by PM-led Cabinet Committee on Economic Affairs,
- The project has been approved on the Engineering, Procurement and Construction (EPC) mode.
- It holds strategic and socio-economic significance, given the fact that the region of Leh has limited connectivity due to threat of avalanches.
- The project will be executed by Ministry of Road Transport & Highways (MoRT&H).

New Savings Bonds

- The Centre recently announced the introduction of 7.75% savings bonds.
- It will have a maturity of seven years carrying interest at 7.75% per annum payable half-yearly.
- There will be no maximum limit for investment in the bonds.
- At the same time, these bonds are not tradeable in the secondary market and are not eligible as collateral for loans from banking institutions/non-banking financial companies.
- Interest on the bonds will be taxable under the Income-tax Act, 1961.
- The bonds will, however, be exempt from wealth tax under the Wealth Tax Act, 1957.
- The bonds are open to investment by individuals, including joint holdings and Hindu Undivided Families (HUFs).
- NRIs are not eligible to invest in these bonds.

Intergovernmental Panel on Climate Change (IPCC)

- The IPCC is an international body for the assessment of climate change, it was established by the United Nations Environment Programme (UNEP) and the World Meteorological Organization (WMO).
- The IPCC reviews and assesses the most recent scientific, technical and socio-economic information produced worldwide relevant to the understanding of climate change.
- It does not conduct any research nor does it monitor climate related data or parameters.

Atal Pension Yojana

- Recently the subscriber's base under the Atal Pension Yojana (APY) has reached more than 8 million.
- APY is available to all citizens of India in the age group of 18-40 years.
- Under the scheme, a subscriber would receive a minimum guaranteed pension of Rs.1000 to Rs.5000 per month, depending upon his contribution, from the age of 60 years.
- The same pension would be paid to the spouse of the subscriber and on the demise of both the subscriber and spouse, the accumulated pension wealth is returned to the nominee.
- The APY Scheme follows the same investment pattern as applicable to the NPS contribution of Central Govt employees.
- APY can be opened through banks, Postal department and also through a complete digital channel through eNPS platform.

National Tobacco Control Policy

- Union government is planning to propose a policy for enforcing various provisions of the Cigarettes and Other Tobacco Products.
- As of now Prohibition of Advertisement and Regulation of Trade and Commerce, Production, Supply and Distribution Act, 2003 (COTPA 2003), lies with the States/Union Territories.
- At present there is a National Tobacco Control Programme (NTCP) with one objective of ensuring effective implementation of the provisions under COTPA, 2003.
- There are State and District Level Coordination Committees under NTCP to oversee its implementation.

Sin Cess

- A sin cess is added to products or services that are seen as vices, such as alcohol, tobacco and gambling.
- These types of taxes are levied by governments to discourage individuals from partaking in such activities without making the use of the products illegal.
- General public usually accepts sin taxes because they are indirect taxes that only affect those who use the products.
- Under the GST regime, a cess is levied on luxury, demerit and sin goods to make good the loss suffered by the states on account of roll out of the new indirect tax regime.
- Sin cess in India is levied on top of the highest tax rate of 28% on these goods.

Milk Under Price Stabilisation Fund

- To create additional domestic demand for milk the agriculture ministry has sought inclusion of the milk under the Price Stabilisation Fund scheme.
- If milk is included in the Price Stabilisation Fund, it would enable states to distribute milk through the public distribution system.
- The Price Stabilization Fund (PSF) was set up under the Department of Agriculture, Cooperation & Farmers Welfare (DAC&FW) and later transferred to Department of Consumer Affairs (DOCA).

- It aims to help regulate the price volatility of important agro-horticultural commodities like onion, potatoes and pulses were also added subsequently.

Rashtriya Rail SanrakshaKosh

- In the Budget 2017-18, an exclusive fund called “Rashtriya Rail SanrakshaKosh” (RRSK) has been made.
- The fund has a corpus of Rs.1 lakh crore over a period of 5 years.
- This fund will be used for giving a major boost to safety related works for improving safety of tracks, rolling stock and proliferation of other safety technologies and training of staff.

Bishing Stand-off

- Troops of Indian and Chinese security forces are locked in a standoff near Bishing in Arunachal Pradesh.
- The standoff is firmly within Indian Territory, about 4 km from the McMahon Line.
- The standoff began after Indian troops involving the Indo-Tibetan Border Police (ITBP) and the Indian Army were informed by local villagers that a Chinese road-building team had entered India with bulldozers.

Labelling organic products

- The Food Safety and Standards Authority of India (FSSAI) had issued regulations that required food companies selling organic produce to get certified from either one authority.
- Certificate issuing authorities will be National Programme for Organic Production (NPOP) or the Participatory Guarantee System for India (PGS-India).
- Companies could also get a voluntary logo from the FSSAI that marked its produce as ‘organic.’
- It will be implemented from July 2018, any company that claims to sell organic food and not sticking to standards can be prosecuted.

NPOP

- Organic farming certification had been done through a process of third party certification under the NPOP.
- This is a top- down mechanism run by the Ministry of Commerce used for certifying general exports.
- Nearly 24 agencies were authorised by the NPOP to verify farms, storages and processing units and successful ones got a special ‘India Organic’ logo.

PGS-India

- The PGS-India programme had been working from 2015, it involves a peer-review approach.
- Here, farmers play a role in certifying whether the farms in their vicinity adhered to organic-cultivation practices.
- This programme was implemented by the Ministry of Agriculture through the National Centre of Organic Farming.

JalMahotsav

- Third JalMahotsav has been celebrated in Hanuwantiya Island in Khandwa district under the aegis of Indira Sagar Dam project (that forms the largest reservoir in India).
- It is India’s biggest water carnival through which is organised every year in Hanuwantiya.
- JalMahotsav promotes rural economies, and transforms hinterlands towards local economic development.

Nuclear Command Authority (NCA)

- It is responsible for command, control and operational decisions regarding India's nuclear weapons programme.
- Organisational structure of NCA includes Political Council and Executive Council.
- Executive Council is headed by National Security Advisor and Political Council is headed by Prime Minister.
- The Executive Council gives its opinion to the Political Council, which authorises a nuclear attack when deemed necessary.
- This kind of organisational structure is created to prevent the accidental or unauthorised use of nuclear weapons.
- Strategic Forces Command is a part of Nuclear Command Authority, responsible to operationalize the directives of NCA and for the management and administration of the country’s tactical and strategic nuclear weapons stockpile.
- SFC is headed by Commander-in-chief of the rank of Air Marshal.
- It will have the sole responsibility of initiating the process of delivering nuclear weapons and warheads, after acquiring explicit approval from the NCA.

Mankidia Tribe

- Mankidia is one of the 13 Particularly Vulnerable Tribal Groups (PVTG) in Odisha.
- They critically depends on making rope with siali fibre that’s richly available in Similipal Tiger Reserve (STR).
- They were denied habitat rights inside the STR under Scheduled Tribes and Other Traditional Forest Dwellers (Recognition of Forest Rights) Act, 2006.
- So they would now be deprived of the non-timber forest produce.

- This is because the State Forest Department has objected on grounds that tribals could be attacked by wild animals.
- Had it been approved, the Mankidia would have been the first PVTG to have habitat rights.
- In Odisha, processes have been initiated for according habitat rights to PVTGs such as Bondas, Didai, Hill Khadia and PaudiBhuyan.
- “Habitat’ as defined under the FRA includes the area comprising the customary habitat and such other habitats in reserved forests and protected forests of primitive tribal groups and pre-agricultural communities and other forest dwelling STs.

Web portal to accept online abuse cases

- The Ministry of Home Affairs is set to launch a web portal where people who have faced online abuse can register complaints on a real-time basis.
- It includes victims of cybercrimes like financial frauds.
- The Centre also plans to give access rights to banks on the portal to address cases of fraudulent transactions online.
- According to India’s Computer Emergency Response Team (CERT-In), there was a 21% increase per year in incidents of cybercrime.
- The portal has also been readied on the directives of a committee appointed by the Supreme Court to check circulation of child pornography and sexual violence videos on the Internet.

Talanoa Dialogue

- Enhancing climate action every five years, informed by periodical progress and identifying new opportunities for action, is a fundamental premise of the Paris Agreement on climate change
- The 2018 facilitative dialogue for stocktaking exercises on climate change is called the Talanoa Dialogue.
- The dialogue will assess global progress towards meeting the Paris long-term goals.
- It will also highlight opportunities to step up action, and help spur countries to move forward on enhancing their nationally determined contributions (NDCs) by 2020.
- This dialogue will be launched as a pivotal change, with a new momentum to drive the investment and action needed to achieve a climate resilient future.

ISRO’s 100th satellite

- India is likely to launch ISRO’s its indigenously built 100th satellite along with 30 others in a single mission.
- 31 spacecrafts, including weather observation Cartosat-2 series satellite, will be launched by PSLV-C40
- Cartosats are earth observation satellites indigenously build in India.
- It will be launched from the first launch pad of the SatishDhawan Space Centre at Sriharikota.

1stPIO Parliamentarian Conference

- The 1st PIO(Persons of Indian Origin) Parliamentarian Conference was held in New Delhi.
- This conference was hosted by the Ministry of External affairs.
- PIOs are honoured through this conference as have an important position in the Action Agenda till 2020, drafted by the NITI Aayog.
- Parliamentarians of Indian Origin from over 20 Democracies of the World gathered to share Parliamentary best practices and mutually enrich each other with their experiences.

Equal pay at workplace

- Iceland becomes the first country to legalise equal pay at workplace
- Iceland imposed a new law under which all kinds of firms will have to prove that they pay equally to all their employees, irrespective of gender

Akash Missile

- Recently Indian army planned to procure Akash Missiles.
- Akash was developed by the Defence Research and Development Organisation (DRDO) as part of the Integrated Guided Missile Development Programme.
- It is indigenously developed short-range surface-to-air missile (SR SAM) with a range of 25 km.
- It can simultaneously engage multiple targets in all weather conditions and has a large operational envelope from a low altitude of 30 metres to a maximum of up to 20 km.

National Anthem in Cinema Halls

In News: The Supreme Court has modified its earlier order regarding mandatory playing of national anthem in cinema halls.

The Court's Observation

- In its earlier order, the court ordered all cinema halls to play the anthem before screening a film.
- The Supreme Court has modified this and has now **made it optional for cinema halls** to play the national anthem before every show.
- The court observed that **playing of the anthem was directive, but showing respect was mandatory**.
- Accordingly, if the anthem is played, patrons in the hall are bound to show respect by standing up.

- The court clarified that the **exception granted to disabled persons** from standing up during the anthem shall remain in force on all occasions.

Government's Role

- The current modification will be in place till the Union government takes a final decision.
- This will be based on the **recommendations of a 12-member high-profile inter-ministerial committee**.
- The committee was set up, following the court's earlier order.
- It will specify the occasions, circumstances and events for the solemn rendering of the anthem.
- The ministerial panel will also examine whether any amendments are necessary to the **Prevention of Insult to National Honour Act of 1971**.
- The 1971 Act deals with national anthem, related mandates and punishments thereof for any violations.
- But the petitioner calls for the SC to intervene and interpret the 1971 Act in the light of Article **51A on fundamental duties**.
- The Supreme Court disposed of the petitions, and directed to make the representations before the inter-ministerial committee.
- The Prevention of Insults to National Honour Act states: "Whoever intentionally prevents the singing of the Jana Gana Mana or causes disturbances to any assembly engaged in such singing shall be punished with imprisonment for a term, which may extend to three years, or with fine, or with both."

Significance of the Modification

- Making it mandatory to play national anthem by a judicial rule in the absence of any statutory provision to this effect seemed as a **judicial over-reach**.
- The court's earlier order also had some unintended consequences like reports of **vigilantism**, with people criticized or beaten up for not standing up.
- The need for visibly demonstrating one's patriotism was felt as a case of **moral policing**.
- The rationale behind **singling out cinema houses** leaving out other types of meeting and assemblies was also questionable.
- Above all, the mandatory demonstration of patriotism is not a healthy signature of a **mature democracy** like that India.
- The court's modification to the order has thus removed the coercive element.
- Even if rules are needed for the purpose, it is for the Parliament to prescribe them by law.

Internal Rift in Judiciary

In News:

- Recently, in an unprecedented move, the four senior-most judges of the Supreme Court openly revolt against the Chief Justice of India (CJI).
- It is important that the judges of the Supreme Court should sort out their differences internally and amicably.

Background

- The allegation was that the CJI has been assigning important cases, selectively to Benches of his preference, in contravention of the established convention.
- In justification of their otherwise objectionable conduct of making public allegations, the senior judges claimed to have no other option.
- They claimed that democracy is in peril, and stressed for radical steps for preserving the judicial institution.
- They even stated that the impeachment of the CJI is for the nation to decide.
- This incident has sent shock waves across the country in general and in the legal circles in particular, and has got a mixed response for all quarters.

Argument for/Against the move

- While most senior jurists strongly condemned the act, there were some supportive voices too, who stressed on the need to focus on the issues raised.
- The action of the four judges has caused serious damage to the credibility of the institution, and has set a bad precedent of going public with grievances.
- Also, this has given an opportunity for politicians to assertively muddle in the functioning of the judiciary with loose statements.
- Notably, the CJI, PM and the government have been maintaining silence on the developments to prevent escalation, which is commendable.
- The Bar Council of India and the Attorney General of India have urged for an amicable solution by the judges, which spells optimism for the future.

Present Allegation

- The four senior-most judges after the CJI have alleged that the administration of the Supreme Court was not in order.
- Certain Supreme Court judges arrogated to themselves the "authority to deal with and pronounce upon" cases, over the past months.
- They also alleged the CJI, Dipak Misra of misusing administrative powers to selectively assign cases to judges of his choice.

- Notably, certain cases of far-reaching consequences to the nation have been assigned without any rational basis.
- The senior judges now only question the 'how' and not the 'who' in regards with the administrative power of assigning the cases.

8- Important Case

- CJI has also institute 5-member constitutional bench that will hear 8- important case.
- None of the four senior most - Justices J Chelameswar, RanjanGogoi, M B Lokur and Kurian Joseph - featured in the list.
- These 8 crucial cases are related to
 - Validity of Section 377 of the Indian Penal Code
 - Constitutional validity of Aadhaar
 - The entry of menstruating women in Sabarimala temple.
 - Whether a Parsi woman would lose her religious identity if she marries a man from a different religion.
 - Validity of a penal law on adultery which only punishes a married man for having an extra-marital sexual relationship with a woman married to someone else.
 - Question as to when will a lawmaker, facing criminal trial, stand disqualified.
 - Two case on Tax matters and consumer right respectively.

Convention

- The Chief Justice is indeed the master of the roster, a well-settled law reflected in a Constitution Bench judgment in 1998.
- The convention of the court demands that important cases of public interest or sensitive matters should be first heard by the CJI.
- If the CJI is not willing for some reason to hear the case, it should be assigned to the next senior-most judge in the Supreme Court.
- Instead of that, such cases were assigned to certain Benches and eventually given a quiet burial.
- In case of institution of constitutional benches senior most judges after CJI have been given preferences or their opinion are taken before making final decision.

Other Issues

- **Judges Bribery Case** - The germ that led to the current conflict could be the controversial medical college bribery case.
- The case raised charges of judicial corruption and possible conflict of interest if Justice Misra were to hear it.
- **Fake encounter case** - B.H. Loya was the CBI judge hearing the Sohrabuddin Sheikh's alleged fake encounter case.
- The senior judges had held a meeting with the CJI expressing their reservations about assignation of a related petition to a particular Bench.
- The petition was in regard with seeking an independent probe into the mysterious death of CBI judge Loya.
- The political sensitivity of the matter lead to doubts that judicial allocations could be influenced by external political hand.
- **Internal efforts for redressal** - The senior judges have earlier collectively addressed their concerns to the CJI through a letter.
- They have tried the procedural means to persuade the Chief Justice to take remedial measures.
- **Media** - Having exhausted of the internal options, the judges have now circulated the letter at the press meet and made it public.

Is it a breach?

- The judges have transcended the judicial protocol that sitting judges should not interact with the media.
- However, this comes as an effort to protect the democracy and the independence of judiciary which are allegedly at stake.
- The internal rift poses the risk of diminishing the image of the judiciary and thus needs unconventional remedies.

Administrative role of CJI

- **Master of the roster** means the head of the administrative side.
- Be it the Chief Justice of India(CJI) or Chief Justice(CJs) of any high court it is he or she who heads the administrative side.
- According to Supreme Court Rules of Procedure of 1966, the power to allocate matters before a Bench or judge is the power that the CJI or CJs have got.
- This power of CJI or CJs cannot be overridden by a judicial order even if the CJI or CJ is sitting on a Constitution Bench.
- Other judges are bound to refer the matter back to CJI or CJs in any case where they require it to be looked into by a larger bench of more judges.
- The administrative powers are taken over by the senior most judge of a Supreme Court or High Court only if the CJI/CJ is on leave.
- Under administrative function CJI or CJs appoints court officials and

- They also supervise the general and miscellaneous matters relating to the functioning of the Court.
- Whole concept of a junior and senior judge in the Supreme Court itself is wrong.
- The CJI is the senior most among equals is what the norm and convention are.

Way Forward

- The government must stay away from the internal conflict in the judiciary.
- However, it could disclose its position on the **Memorandum of Procedure** for judicial appointments and communicate it to the Supreme Court.
- The Chief Justice could convene a meeting of the full court and pay heed to the concerns to try internally resolving the conflict.
- The unprecedented internal dissension in judiciary is a moment for collective introspection for the nation on democratic institutions.

Note: for more on the issue you can refer our Nov-2017-II issue.

First Direct Women SC judge

- The Supreme Court Collegium led unanimously recommended the name of senior advocate **Indu Malhotra** for appointment as a judge of the Supreme Court.
- Indu Malhotra will be the first woman lawyer to be directly recommended from the Bar to Supreme Court judgeship.
- This is the first time in history that a woman advocate has been recommended for direct elevation from the Bar to a Supreme Court judgeship.
- If appointed, Ms. Malhotra would be only the seventh woman judge in the Supreme Court's 68-year-old history.

Appointment of SC judges

- The Chief Justice of India and the Judges of the Supreme Court are appointed by the President (on the recommendation of the collegium) under clause (2) of Article 124 of the Constitution. (Collegium has not been mention in the constitution).
- A person to be appointed as a judge of SC should have following qualifications
 1. He/She should have been judge of a high court (or high courts in succession) for five years.
 2. He/She should have been advocate of a High court (or High courts of succession) for ten years.
 3. He/She should be a distinguished jurist on the opinion of president who is recommended by the collegium.
- Constitution has not prescribed a minimum age for appointment as a judge of the SC, but he/she can hold office until the age of 65 years.
- Constitution has not fixed the tenure of SC judge.

Impeachment of a SC judge

- Recently four Supreme Court judges went public with charges against Chief Justice of India.
- According to constitution a judge of the SC can be removed from his office by an order of the president.
- The president can issue the removal order only after an address by parliament has been presented to him in the same session for such removal.
- The address must be supported by special majority of each house of the parliament (i.e. a majority of the total membership of that house and a majority of not less than 2/3rd of the members of that house present and voting).
- Article 124 (4) specifies the grounds of removal as proved misbehaviour or incapacity.
- So far no SC judge has been impeached in India.

Data Protection Law Should Focus on Privacy

Context:

- Artificial Intelligence is increasingly shaping a “Technology Centric Human Society” but we need to recognize that technology should be people centric.
- As many seek technological solution for even trivial issues, data protection legislation should be about protecting people and not innovation.

Concerns

- The Justice Srikrishna committee has been mandated with the task of making recommendations for a drafting a data protection law.
- The committee is currently hearing the views of various stakeholders like “civil society group, academic experts, technologists, industry etc...”
- While the committee’s work looks promising, its recently published white paper talks about the twin case of “**innovation for development**” and “**privacy concerns**”.
- This gives out the opinion that the committee sees privacy as a hurdle to innovation, which isn’t in sync with its mandate of addressing privacy concerns.

Rationale of the Privacy Judgment

- The liberty of the individual finds expression through concepts such as “autonomy, dignity, choice and freedom”, which is violated if his privacy is.
- In the “Puttasamy case”, Supreme Court declared privacy as a fundamental right and called for a carefully structured regime for the protection of data.
- This was based on the recognition that privacy violation is an intrusion upon the “personal liberties of citizens” and requires an obligation on the state to act.
- The judgment’s singular conclusion was that “privacy protection laws” should shield individuals rather than commercial interests or technological innovation.
- Some may argue that such a judgment might legally disrupt innovation, but contrarily, a strong law would actually enhance human centric innovation.
- It would make big data subject to greater legality, the Internet of Things best suited to the Internet of people, and AI subject to natural rights.
- To forge such an understanding, one needs to acknowledge that technology is a means for development and not an end in itself.
- The right regulatory design is hence mandatory to prevent pure market mechanisms that concentrate power in a few individuals.

Way Forward

- 5 years ago, Justice A.P. Shah Committee proposed nine privacy principles based on a “fundamental philosophy” for data protection.
- To operationalize these and account for “innovation” the Shah Committee also recommended, a technology neutral and generic “Privacy Act”
- This was to ensure that the principles and enforcement mechanisms remain adaptable to “technological, social and political” changes in the society.
- However, the recommendations were clearly acknowledged that data protection is about protecting individuals and not about protecting innovation.
- To ignore these key points now would be a decisive blow to privacy, and hence any new recommendation needs to build on the Shah committee’s views.

Adivasis and Lambada Conflict in Telangana

Context: Adivasis and the Lambadas of Telangana are in dispute over share of government benefits.

Lambadas

- The Lambadi (Or) Lambada community is a part of the Banjara or the nomadic tribes.
- These people are forest wanderers or Gypsies originally from Rajasthan.
- Many centuries ago these people moved in large groups towards the south of the sub-continent viz. Andhra Pradesh, Karnataka and Maharashtra, for trade and agriculture.
- They speak in a Lambada dialect (which is a combination of Sanskrit, Rajasthani and Gujarati).
- Many of them have also learnt to speak the languages predominantly used in their respective areas of settlement.
- The Lambadas prefer not to mingle with other people and live in small settlements in the outskirts of a town.

Conflict between Adivasis and Lambada

- Before 1976 there were only nine aboriginal tribes in the Telangana incorporated through Article 342, in which Lambadas were not present.
- The inclusion of the Lambadas in the list of Scheduled Tribes in 1976 was done through an ordinance.
- The Adivasis claim that the Lambadas do not qualify as a Scheduled Tribe because the process of their inclusion in the ST list in 1976 was incomplete.
- According to the ordinance the Telangana Lambadas were identified as a plains tribe with reservation restricted to education.
- But due to political and bureaucratic influences the Lambada community has advantages in employments over the Aborigines.
- The aboriginal people claim they have been overlooked in employment and education.

How Lambadas are privileged?

- In 1976 due to the pressure from Lambada leader this community was included in the ST list.
- The Amendment Act in question removed the regional boundaries so that the Lambadas in Telangana also got to be categorised as Scheduled Tribes.
- Apart from this the Lambadas make use of many of their favourable men in various ministries and in departments of the governments.

Actions Taken by the State Government

- The State government is “quantifying” the alleged disparity in development by collecting district-wise figures of tribal employment at all levels, especially revenue and education.

- The process of shifting Lambada officials from key posts has begun with the transfer of Collector and District Revenue Officers.

Orange Passports For Emigration Check

- Ministry of External Affairs has decided to offer orange coloured passport to the travellers who require an emigration check.
- By this ECR status would be issued a passport with an orange-coloured, non-ECR status will continue to get blue passports.

ECR status

- As per the Emigration Act, 1983, certain categories of Indian passport holders require obtaining an 'Emigration Clearance' for going to certain countries.
- Emigration, as per the Act, means the leaving of India by any Indian citizen with the intent of taking up employment in certain foreign countries.
- Persons who don't have a minimum educational qualification of 10th standard (SSC, Matriculation) will come under ECR category.
- The idea behind the 'ECR' is to ensure the safety of uneducated and unskilled Indian citizens, from the most deprived socio-economic strata, against prevailing legal conditions in certain foreign countries.

Types of passports issued in India

- **Regular Passport** - This has a navy blue cover; it is issued to citizens for ordinary travel like vacations and business trips.
- **Diplomatic Passport** - This has a maroon cover; it is issued to Indian diplomats, top-ranking government officials (joint secretary and above) and diplomatic couriers.
- **Official Passport** - This has a white cover; it is issued to individuals representing the Indian government on official business.

ECONOMIC AFFAIRS

Easing of FDI Norms

In News: The Centre has recently eased several FDI norms.

Key Highlights

- **Approval** - In the **single-brand retail**, the Centre has allowed **100% FDI** through the automatic route, from the 49% at present.
- 100% FDI is allowed in construction development relating to building townships, housing and infrastructure and real estate broking services.
- **Local Sourcing** - The mandatory 30% requirement could be relaxed for companies with 'state-of-the-art' or 'cutting edge' products, for which local sourcing was not possible.
- However, the absence of a definition for 'state-of-the-art' or 'cutting edge' technology has stalled the applications of global companies.
- The mandatory local sourcing is now relaxed for the first five years.
- Thereafter, single-brand retailers will be required to meet the 30 per cent local sourcing norm.
- **Power sector** - The government has removed the restrictions on investment in power exchanges through the primary market.
- This applies to foreign institutional investors and portfolio investors.
- Till now they could do so only through the secondary market.
- **Air India** - Importantly, the Centre has allowed foreign airlines to invest up to 49% under the approval route in Air India.
- These are subject to the conditions that -
 - Foreign investment(s) in Air India, including that of foreign airline(s), shall not exceed 49% either directly or indirectly.
 - Substantial ownership and effective control of Air India shall continue to be vested in an Indian national.

FDI in Single Brand Retail

- Union government has decided to allow 100 per cent Foreign Direct Investment (FDI) in single-brand retail trading through the automatic route last week.
- Single-brand retail chain is expected to sell all its products under only one label across its store, example Burger King, KFC, Levis.
- If an MNC operates a single-brand retail chain, the product must also be sold under the same brand name globally.
- The MNC must also source 30 per cent of its purchases for the business from India.
- Now this rule is slightly relaxed to allow an MNC to set off any local sourcing for its global business, against this 30 per cent quota.

FDI

- Foreign direct investment (FDI) is an investment made by a company or individual in one country in business interests in another country.
- Foreign direct investments are distinguished from portfolio investments in which an investor merely purchases equities of foreign-based companies.
- FDI comes to India with two routes through automatic and Government route.
- **Automatic route**-under this route the foreign companies do not need a prior approval for investment either by the Government or the Reserve Bank of India.
- The investors are only required to intimate the Regional office concerned of the Reserve Bank within 30 days of receipt of inward remittance.
- **Government route** - Certain activities that are not covered under the automatic route and that require prior Government approval comes under this route.
- Earlier Foreign Investment Promotion Board (FIPB) issued permissions for such foreign investments.
- Recently FIPB was scrapped and now concerned government department can clear such procedures.

Rationale for Air India Decision

- The move comes in the backdrop of Singapore Airlines and Tata Group evincing interest in bidding for the debt-laden national carrier.
- As per the present policy, foreign airlines are allowed to invest under the government approval route up to the limit of 49% of their paid-up capital.
- The investments are made in the capital of Indian companies operating scheduled and non-scheduled air transport services.
- However, this provision was not applicable to Air India, and the government has now decided to do away with this restriction.
- The move is aimed at bringing Air India on par with other Indian airline operators with respect to FDI norms.

Significance

- The move regarding airlines was much needed in light of the proposed **privatization of Air India**.
- The changes to the FDI norms would trigger significant interest in Air India from foreign airlines and thus increase the number of interested bidders and the valuation.
- However, the actual terms of the offer and conditions attached would determine the level of participation in the bids.
- The possible divestment would help spur more jobs and growth in Air India.
- The amended norms, in general, have **cut the red tape** and ensured a more predictable and easier policy structure.
- The automatic approval will save companies from the **delaying procedures** with the Department of Industrial Policy and Promotion.
- The changes gains significance with India's goal of making it to the top 50 countries in the World Bank's **ease of doing business** ranking.

Local Sourcing

- Local sourcing requirement mandates that a global company contract the goods or services delivered or manufactured within the domestic country.
- Companies, under the new norms, will be allowed to set off purchases of goods from the country for their global business against the 30% requirement for the first five years.
- The offset amount will be equal to the annual increase in the value of goods purchased from India for global operations in rupee terms.
- The relaxed time frame for local sourcing is conducive for global companies to develop good suppliers as partners.

Allowing FDI in Air India

In News: The Union Cabinet has given its approval for allowing up to 49% foreign investment in Air India (AI), albeit with certain conditions.

What are the implications?

- This will allow foreign carriers to bid for the AI along with an Indian partner, which will implicitly broaden the spectrum of potential investors.
- This is particularly significant for its timing, as a Parliamentary standing committee report had asked for the reconsideration of divesting AI.
- The panel had asked the government to explore other alternatives and also demanded a wait of at least 5 years to facilitate AI's revival.
- The panel had also flagged concerns about job losses as a consequence of disinvestment and asked the government to assess such eventualities.
- Notably, AI had a total debt of about 49,000 crores in March 2017 and the carrier is expected to report a net loss of about 3,600 crores for 2017-18.

- While there have been some marginal improvements in the recent months, it has been largely perceived as grossly inadequate.

Indian Civil Aviation Industry

- The civil aviation industry in India has emerged as one of the fastest growing industries in the country during the last three years.
- India is currently considered the third largest domestic civil aviation market in the world.
- According to International Air Transport Association IATA, India will displace the UK for the third place in 2026.
- Freight traffic on airports in India is expected to cross 11.4 million tonnes by 2032.
- Growth in import and export in India will be the key driver for growth in freight traffic as 30 per cent of total trade is undertaken via airways.
- The Civil Aviation industry has ushered in a new era of expansion, driven by factors such as
 - Low-cost carriers (LCCs),
 - modern airports,
 - Foreign Direct Investment (FDI) in domestic airlines,
 - advanced information technology (IT) interventions and
 - Growing emphasis on regional connectivity.

Government Initiatives

- In the Union Budget 2017-18, the Civil Aviation Ministry received a substantial increase of over 22 per cent in budgetary allocation for the next financial year.
- Some major initiatives undertaken by the government are:
- Constructing 17 highways-cum-airstrips are the government's priorities.
- Airport building and modernization projects are focus to improvement in regional air connectivity.
- New 128 routes across India has been given approval under the Government of India's regional aviation scheme named UDAN.
- The Government of India has approved the construction of 18 Greenfield airports in the country
- Government of India has approved the proposal to revive 50 un-served and under-served airstrips in three financial years.
- Under UDAN fares has capped at Rs 2,500 (US\$ 37.5) for half the seats in an one-hour flight.

Way Forward

- With multiple contradictory claims, the parliamentary panel has clearly vouched against privatization without a nuanced analysis of the AI case.
- As most arguments put forth have been heard before and haven't been bearing fruit, it is prudent for the government to ignore these recommendations.
- There is an urgent need to reconcile to the fact that AI has been burning a big hole in the public exchequer for long and has to be done away with.
- Notably, AI doesn't even enjoy centrality in the Indian Aviation sector anymore, as private carriers now account for 86% of the traffic.

Targeted Agricultural Lending

Context:

- There is a trend of actual loan disbursements to the farm sector outstripping the liberally hiked annual targets year after year.
- Yet agrarian distress and farmers' dependence on moneylenders are showing no signs of easing.

Concern

- The total credit flow has surged over 10-fold since the early 2000s.
- Institutional credit to the farm sector is set to exceed the target of Rs 10 trillion for the current year.
- However, nearly 40% of rural credit demand is still met by the informal sector, including commission agents and moneylenders.
- Clearly, the purpose for which institutional credit to the farm sector was stepped up steadily has not been served adequately.
- Interest subvention by the government has resulted in cheaper bank credit.
- However, it is not reaching the small and marginal farmers due to poor targeting and large-scale diversion to other destinations.

Credit Distribution Scenario

- **Credit scale** - The proportion of loans of less than Rs 200,000 which normally go to genuine farmers has been over 90% in the 1990s.
- This proportion has now shrunk sharply to less than half.
- Contradictorily, the share of larger loans of up to Rs 10 million and more has surged.
- **Time** - Besides, roughly about half of the total farm credit is disbursed between January and March.
- But this is when farmers' loan requirements are the least with rabi sowing already over and kharif planting being months away.

- **Farmers** - Nearly a fourth of direct agricultural lending is accounted for by banks located in semi-urban, urban and metro towns.
- Frequent farm loan waivers have marred the loan repayment culture in rural areas.
- Evidently, banks find it much safer and convenient to lend to agri-related enterprises rather than to the more risk-prone farmer.
- Highly subsidized agricultural loans are thus largely reaching only the non-farmers or the same set of farmers with good repayment record.
- **Cooperative credit sector** - Non-performing assets of the primary cooperatives and the agricultural and rural development banks have risen to 37% by the end of 2015-16.
- Political interference in the day-to-day functioning of these bodies is adding to their woes.
- Also, many of the CEOs in these have non-banking background which is contributing to the overall failures of cooperative banks.

Way Forward

- The finance ministry has sought a fresh assessment on the health of the cooperative credit institutions.
- The report, ahead of the forthcoming Union Budget, from the National Bank for Agricultural and Rural Development (NABARD) should help the Centre reorient its strategy.
- The issues confronting the cooperative and the commercial banking sectors need to be addressed.
- This is essential to ensure better targeting of agricultural lending to make meaningful the quantitative increase in farm credit.

Communication Policy for RBI

Context: Given the dynamic economic situation, it is increasingly essential for the RBI to have a better communication policy in place.

Recent Concerns

- **Uncertainty** - The economy is recovering from Demonetisation and is implementing a path-breaking fiscal instrument, the GST.
- In these uncertain times, when guidance is most needed, the monetary policy document has been shrinking.
- The time dedicated by the RBI management to interact with the media is also shrinking.
- **Monetary policy** - Illustratively, signals given in the last monetary policy of the RBI are hazy.
- It acknowledges that growth of real gross value added accelerated in the last quarter after five consecutive quarters of deceleration.
- However, a deeper look into sector wise growth trends reveals that the growth is uneven.
- Evidently, growth in the coming quarters cannot scale very high to achieve an annual average of 6.7 per cent in 2017-18.
- The disputed communications leave scope for doubts and uncertainty among the public, economists and the business class.

Significance of Communication

- **Guidance** - Besides monetary policy formulation, RBI is tasked with banking regulation, management of external sector and government debt.
- There are constant challenges in each of these sectors and the public, including economic analysts, seek guidance from the RBI.
- **Governance** - Communication helps in making the RBI **transparent** and contributes to its reputation and **accountability**.
- In a market-determined liberalized economic environment, systematic communication helps achieve **monetary policy effectiveness**.
- Compulsions to communicate contribute to improving the **quality of decision making** and provide a helpful feedback.
- In uncertain times, communication policy assumes added **responsibility** in view of abundant online information which is sometimes misleading.
- **Economy** - Empirical evidence highlights that better communication policy reduces **market uncertainty**.
- Growth predictions from RBI should be in line with its **interest rate decisions** that play a significant role in handling inflation and growth.
- For credibility, convincing communications are essential from the RBI on explaining the following:
 - econometric model for growth prediction
 - rationale behind interest rate decisions
 - true inflation pictures
- In all these ways, communication's role is as significant as being recognised as a monetary policy tool in itself.

Way Forward

- It is essential that RBI have in place a systematized communication policy.
- The RBI could consider bringing out a summary of the economic and business conditions prevailing in the country.

- E.g. Beige Book of US Fed, Agents report of the Bank of England.
- Similarly, RBI could consider theme-based research seminars, conferences and workshops on topics that need urgent attention.
- Conferences could also encourage academic participation by providing the opportunity to publish research papers.

World Development Indicator

In News: World Bank has recently released World Development Indicator.

World Development Indicator

- The parameters included in the indicator are economic and socio-economic factors.
- The economic factors include agriculture & rural development, economy & growth, energy & mining, external debt, infrastructure, private sector, public sector, science & technology, trade, and urban development.
- Socio-economic factors cover aid effectiveness, climate change, education, environment, gender, health, labour & social protection, and poverty.
- It is compiled from officially-recognized international sources.

Implications of the Recent Report

- **Population policy** -India requires continuing attention in this areas as the mortality for under 5's remained 43 for 1,000 births in India in contrast to 15 in Brazil and 10 in China.
- **Rural-to-urban migration** -In India this rate has declined, urban population growth rate continues to remain highest in China, despite the nation bringing it down at the highest speed.
- **GDP indications** -India's GDP growth rate in 2016 stood slightly above China's though, in 2017, this will likely get reversed.
- Both countries suffered significant losses in exports and imports in terms of GDP, revealing setbacks in global trade though India's decline was more rapid.
- **Investments and expenditure** - China managed 44 per cent of GDP in foreign direct investment (FDI) in contrast to India's 30 per cent.
- In 2016, military expenditure in terms of GDP was noticeably higher in India, which is 2.5 per cent higher than in China.
- In 2016, FDI in Brazil was almost double that of India, China's being almost four times that of India.
- **Technology orientation** -Mobile cellular subscription per 100 persons increased rapidly in both India and china in 2016.
- India's number (87) was competitive with China (97) However, individuals using the internet as per cent of population lagged behind in India (30) in contrast to China (53).
- Thus India has the most abject record in poverty, income distribution and wealth concentration indices in modern times and among modern economies.

Way Forward

- When compared to china and Brazil, India has made steady progress in containing population growth rate and in reducing mortality rates though India needs to speed up implementation to catch up with others nations.
- Caution is needed in term of trade as international oil prices firm up and the rupee continues to depreciate faster than optimal for enhancement of trade.
- India needs to concentrate more on its socio-economic polices and address trade related concerns to grow as a better economy.

Reversing Trend in Oil Prices

Context:

- The declining trend in global crude oil prices has started to reverse.
- It calls for the government to take notice and formulate appropriate energy policy in terms of price and energy options.

Three Year Trend

- India witnessed a three-year oil bonanza starting from the 2014-15 period.
- The average price of the Indian basket of crude oil was around \$46 a barrel in the last year.
- The resulting gains were substantial for the oil sector, the economy, and the government.
- Oil companies began turning in higher profits and retail selling prices for petrol and diesel also relatively fell to an extent.
- Resultantly, the Union government's subsidy bill for petroleum products declined significantly.
- It also used the opportunity to increase taxes on petroleum products to reap the benefits from falling crude oil prices.
- Its excise duty collections during these three years saw a cumulative annual growth.
- This in turn contributed to staying on the path of fiscal consolidation.

Recent Developments

- The declining trend in oil prices has started to take a turn from the beginning of 2017-18.

- The average price of the Indian basket of crude oil has risen in the recent months.
- The latest numbers crossed the \$60-mark for the first time this year for two consecutive months.
- Retail prices of petrol and diesel have also inched up compared to prices in the previous year.
- In response, the government intervened recently to reduce excise duty on petrol and diesel, resulting in an annualized revenue loss.
- As a consequence of higher crude oil prices, the government's petroleum subsidy bill has also risen.

Future Prospect

- There are no signs of the international crude oil prices declining from their current elevated levels.
- However, India's energy demand in the next few decades is expected to increase faster than that of any other large country.
- India's dependence on energy imports would also rise in the coming years.
- Technological developments and sustainability issues are also getting to be considerable challenges.

Way Forward

- The challenges and limitations have to be considered in government's pricing of energy products and fiscal policy options.
- The government should refocus its attention on an integrated energy policy.
- The feasibility and scalability of the renewable energy sector should also be given enough focus in the energy policy.

Labour Reform Dissimilarities

Context

- Both Union and State Governments are undertaking various labour reforms.
- But there are crucial differences in the way the Centre and the states in approaching this idea.

Labour Law Reforms of State Governments

- Recently the government of Jammu and Kashmir announced that it would soon finalise a uniform employment code.
- The proposed code will subsume in itself all its existing 260 different labour laws.
- States like Rajasthan, Madhya Pradesh and Maharashtra, also reformed some of their labour laws in the last couple of years.

Initiatives of Union Government on Labour Laws

- Union government has chosen a slightly different path from the state governments.
- Union government planned to formulate four labour codes one each on industrial relations, wages, social security and industrial welfare.
- These codes were to subsume in themselves all the existing 46 labour laws.
- By this proposal it was planned to allow lay off employees without government permission in enterprises with employees below 500.
- A draft notification to allow fixed-term employment in all sectors of the economy has been issued and it is expected to be notified soon.

Concerns with Labour Reforms

- Converting all laws into a single labour code has not addressed the labour related concerns in flexibility in hiring and firing of employees, decent wages with improved work conditions and an attractive compensation package for retrenched workers.
- Even after significant labour reforms state governments strive hard to pull investments and the states still grow at a pace even slower than that in the entire country.
- The idea of the states and the Centre implementing labour law reforms in their separate ways following different methods may not secure optimum results for the economy.
- An attempt to bypass Parliament to change rules governing the labour market by the state governments are not a sustainable strategy and can even be counterproductive in the long run.

Way Forward

- It would be better for the Centre and the states to sit together and agree on a set of reforms that are necessary for labour laws in a model that was followed for the rollout of the goods and services tax (GST).
- Enforcement of the relaxed labour laws and the degree of administrative efficiency play a crucial role in ensuring that labour reforms yield the desired results.
- Amendments to the contract employment rules to allow contractual workers perform core functions of an enterprise will introduce a major flexibility in the country's labour market.
- Many other important factors such as availability of skilled labour, robust infrastructure and a growing market for goods and services needs to be taken to consideration for boosting investments.

INTERNATIONAL AFFAIRS

Multiplicity of Challenges in Myanmar

Context: Besides the infamous Rohingya crisis, Myanmar also saw multiple challenges on the fronts like press freedom and the “Panglong peace process” in 2017.

Events that Defined Myanmar of 2017

- Both the civilian government and the military establishment of Myanmar (which is politically powerful), had a rough 2017.
- The issues of - Threats to press freedom, Rohingya refugee crisis, and peace process with the country’s armed ethnic groups got international attention.
- The civilian government of Ms.SuuKyi’sNLD, attracted severe criticism for its failure to act on these issues more effectively.
- **Press Freedom** - At least 11 journalists of (both Myanmarese and foreigners) have been arrested in the past year on trivial charges.
- Notably, two Reuters reporters were arrested on the charges under the colonial-era “Official Secrets Act” for ‘illegally acquiring information’.
- It is speculated that they were collecting documents regarding the conduct of security forces in Rakhine state, the duo could possibly get long prison terms.
- **Rohingya Crisis** - The UN has called the militaristic crackdown in Rakhine as “ethnic cleansing”, and media has been blacked out in the region.
- Up until now, the gruesome horrors unleashed by the security forces are primarily coming from the Rohingya refugees who have fled to Bangladesh.
- But despite serious international condemnation, Myanmar has denied any wrongdoing and claims that its offensives are only targeted against ARSA (Rohingyan rebel militia), which is officially a terrorist outfit in Myanmar.

Panglong Peace Conference

- Besides the Rohingyas, there are multiple armed ethnic rebels in Myanmar and Ms. SuuKyi has been prioritizing peace with them.
- Consequently, the 2nd session of “Panglong Peace Conference” was convened in May 2017, to discuss on a 41 point agenda.
- **Positives** - This brought together the government, military and ethnic rebel leaders and agreement was reached on 37 issues.
- The rebel groups agreed to recognize a democracy union with federalist polity that gives considerable rights for ethnic self-determination.
- On its part, the government agreed to treat all ethnicities equally and privileged the provinces to write their own sub-constitutions within Myanmar.
- **Challenges** - However, the calls for dissolution of rebel armies to pave the way for the constitution of a single national army haven’t been agreed.
- Contrarily, the rebels vouch for a federal army to enable them retain independent command structures.
- Also, there have been some hiccups with the technicality of whether to specifically iterate the clause for “non-secession” in the peace accord.
- Also, another major concern is that out of the more than 20 armed groups, only 8 have signed the current “Nationwide Ceasefire Agreement” thus far.
- While the 3rd round of the Panglong Conference has been scheduled for late January, the future looks uncertain.

India-Israel Relation

In News:

- India is hosting Israel’s Prime Minister Benjamin Netanyahu for a four-day visit.
- Advocating the Israel-Palestine peace process is vital for India to restore its influence in West Asia.
- A resolution was passed in the UN with the support of 128 nations opposing the USA’s recent stand on the status of Jerusalem.

Evolution of India Israel Relation

- Both countries are natural allies in a way as they are isolated democracies threatened by neighbour.
- Although both countries gained their independence from the United Kingdom within months of each other, but relations were not always warm.
- India as a leader in the Non-Aligned Movement came closer to the Arab world and the Soviet Union. Israel linked its closer ties with the United States and Western Europe.
- India’s large Muslim population also prevented India’s close relations with the Jewish State that might radicalize its Muslim citizens and hurt its relations with the Arab world.
- India and Israel established **full diplomatic relations in 1992** and since then the bilateral relationship between the two countries has blossomed at every levels.

India-Israel Hostile Relation

- For most of its pre and post-independence history, New Delhi viewed the Israeli-Palestinian conflict through an ideological lens and in zero-sum terms.
- India pursued a foreign policy antagonistic towards the Jewish state.
- India voted against Israel's entry into the UN, and voted for Zionism to be condemned alongside racism.
- However at the social level, India was known as one of the friendliest destinations for Israeli tourists.
- In fact, India refused to grant Israel full diplomatic recognition until 1992. Such hostility towards Israel is surprising given the similarities the two countries share.
- India -Israel are however said to be natural allies because-
 - Both nations are former members of the British colonial system,
 - Surrounded by traditionally hostile states,
 - Islands of democracy in the middle of generally undemocratic regions, and
 - Constant victims of Islamic extremism.

India's Balancing Act between Neighbors

- Our bilateral relations are independent. This driver is India's tradition of neutrality – being a “friend-to-all” and keeping individual relationships free from entangling alliances.
- India's balancing act between its Israeli and Palestinian friends is a relatively recent phenomenon.
- **India's Non-Aligned Movement (NAM)** and subsequently ideological justification for pro-Palestinian and anti-Israeli position lost its validity following the end of the Cold War.
- Additionally, through 1991 Madrid Peace Process, Arab world and PLO started negotiation with Israel. Thus New Delhi had no reason to maintain the status quo.
- Longstanding and unqualified support for the Palestinians had reaped almost no dividends for New Delhi over the Kashmir issue or any other dispute involving Pakistan for that matter.
- The two natural allies have made counterterrorism and military cooperation the centerpiece of their bilateral relations and became strategic partners.
- Economic cooperation as well as collaboration in space research, trade, science and technology, farming and education is also thriving between India and Israel.

India's Policy Shift

- First time India voted against Palestinian interests at the UNHRC, signalling a significant shift in India-Israel relations.
- India abstained from a vote at the UNHRC that approved their Gaza Commission of Inquiry report, in July 2015.
- But for the last 25 years, India has always insisted on keeping its ties low-key.
- This is the first visit by an Indian Prime Minister to Israel and also broke the traditional pattern of jointly traveling to Tel Aviv and Ramallah.
- This is a deliberate effort to broadcast that India is de-hyphenating its relations with Israel and Palestine i.e. dealing them as separate entities with separate interest.
- Chinese are ahead of us in bilateral trade; their companies are investing heavily in Israel's cutting-edge start-ups.

Contemporary Relation

- The key to the growing India-Israel ties is the security, defense, agriculture and water management.
- Indian army's modernization program started in early 2000s. Since then, defense trades with Israel have grown exponentially.
- Israel had also trained Indian armed personnel in counterterrorism and counterinsurgency operation methods.
- Israeli technology in sold radar, surveillance systems and defense electronic components for military aircraft are far more advance.
- **Mashav, an international development program of Israel** provides field expertise to India since 2006 in various sectors.
- Israel also provided special courses and training in agricultural technology and community development to thousands of Indian.

Key Defense Deals Are

- India's elite Cobra Commando's X-95 assault rifle.
- Advanced Israeli PhalconAWACS planes (airborne warning and control systems) for detecting hostile aerial threat.
- Sword Fish ground radar trackers and precision-guided artillery.
- Spike anti-tank guided missiles and 321 missile launchers developed by Rafael Advanced Defence Systems Ltd.
- Barak 8 air and naval defense missile system jointly developed India and Israel.
- Israel Aerospace Industries (IAI) DRDOcollaborating on surface-to-air missile system development.
- Unmanned drones for surveillance and military purposes.
- Reliance Defense and Israeli firm Rafael Advanced Defense Systems signed a cooperative agreement worth \$10 billion.
- Extradition Treaty and a pact on Transfer of Sentenced Prisoners between two countries are also in place.

Transforming India-Israel Ties

- Traditionally India has aligned its decisions on UN Assembly and the bilateral ties with Israel based on a pro-Palestinian stance.

- In his visit to Israel last year, Indian PM Modi decided not to visit the Palestinian territories.
- The decision came from a determination to “de-hyphenate” relations with Israel and Palestine.
- This means that India will have its bilateral strategic ties with Israel irrespective of its political stance on Israel-Palestine issue.
- This was underlined in the India-Israel joint statement, which did not refer to the two-state solution.
- It also did not mention the status of Jerusalem, and not even call for an early resumption of the Israel-Palestine peace process.
- India and Israel instead focused on strengthening bilateral ties.
- Israel PM's upcoming visit to India will give this relationship an added fillip.

Need for Such Dynamic Position

- India's position is explained as a desire to reassert its leadership role on the multilateral stage.
- This is in keeping with the special place and moral position India has always assumed on the peace process, and its support to a just solution.

Existing India-Israel Economic Ties

- Over the last 25 years, bilateral trade between India-Israel has increased from \$200 million to more than \$4 billion (excluding defense) in 2016-17.
- Given India's large market and huge consumer base, the numbers are low compared to India's economic relations with other countries.
- Currently, India is the largest arms buyer from Israel; trade is to the tune of approximately \$600 million.
- India signed a biggest weapon with Israel in 2017 for procuring advanced defense system of medium-range surface-to-air missiles, launchers and communications technology.
- MoU between India and Israel on the “India-Israel Industrial R&D and Technological Innovation Fund” was also approved by cabinet in 2017.

Significance of This Visit

- Recently India voted in the UN General Assembly against recognizing Jerusalem as Israel's capital.
- Israel Prime minister visit comes despite New Delhi opposing Israel's move to make Jerusalem its capital.
- A 130-member delegation is accompanying the Israeli prime minister, constituting businessmen from 102 Israeli companies.
- The impending visit clears apprehensions of a road block in India-Israel relations.

Areas to be discussed

- Areas expected to discuss would be issues ranging from agriculture and water, to cyber security, healthcare and security.
- The primary focus of the accompanying delegation would be to boost economic ties between the two countries.
- Several MoUs are expected to be signed in the fields of oil, gas, renewable energy and cyber security, among others.
- Special emphasis would be given to boost the tourism sector so as to make both India and Israel a lucrative destination for tourists from both sides.

Evolving Nepal's New Polity

In News: A month after the Left Alliance won Nepal's parliamentary elections, government hasn't been formed yet.

Present Situation

- Upper House of the National Assembly was to be indirectly elected by the provincial assemblies, but there was a disagreement on the type of election.
- A long-pending ordinance in late December 2017, that allowed indirect elections based on the single transferable vote, settled this issue.
- But the overall government formation is still being delayed due to other procedural issues.
- These are mainly issues concerning the appointing of provincial governors and choosing capitals, which currently is proving challenging.
- Notably, leading political parties aren't inclined to take political stands regarding capitals as it has been leading to several protests.
- Hence, the current outgoing caretaker governments of NC should work for easing these issues with the guidance of the victorious Left-alliance.

Way Forward

- The decisive electoral mandate in the polls has put the responsibility of operationalizing the provincial model on the Left Alliance.
- Once the process of nominations to the National Assembly is complete the election of the Prime Minister will follow.
- While UML leader K.P. Oli is a surety for the choice of Prime Ministership, it needs to be done soon for Nepal's cause.
- Significantly, Nepal has been having a stagnant economy since the decade long civil war and it is largely dependent on remittances from abroad.
- To change the status quo, a stable polity needs to take shape.

Internet Service Provider for Nepal

- China has recently become Nepal's second Internet service provider, breaking India's monopoly in providing Internet access.
- So far, Nepal had been linked to the global internet network through Indian telecom operators using optical fibre connections in few provinces in Nepal.
- But a new terrestrial fibre cable launched by China Telecom Global (CTG) in 2016 will now connect Nepal and China through the border gateway.
- It is to be noted that CTG has already expanded Internet services to Pakistan, Laos and Thailand.

India and Maldives - Recent Developments

Context:

- Maldives Foreign Minister and its President's special envoy to India, Mohamed Asim visited India.
- The visit gains significance amidst the recently strained relationship between India and Maldives.

Recent Tussle

- Maldives recently signed its **Free Trade Agreement with China**.
- This is Maldives's first FTA with any country and China's second FTA with any country in South Asia after Pakistan.
- The trade pact would open Maldives to Chinese goods and tourists in unprecedented numbers.
- India was certainly concerned with this, due to the possible increased Chinese military presence in the island nation.
- The Maldivian President had earlier promised that Maldives would be an integral link in China's Belt and Road Initiative
- Besides, the Maldives government recently **suspended three members of a local body**.
- This was notably on charges of meeting the Indian Ambassador without seeking prior approval.
- However, responding to these, India articulated its hope that as a friendly neighbour, Maldives would be sensitive to India's concerns in keeping with its "India first policy".

Outcomes of the Visit

- The visit was aimed at overcoming the "trust deficit" between the two countries and reset the strained relations.
- Maldives foreign minister reiterated Maldives' **"India first" policy**.
- The emphasis is an attempt to allay India's concerns over Maldives' growing proximity towards Beijing.
- It was conveyed that Maldives would stay **sensitive to India's concerns** over peace and security in the Indian Ocean region.
- The talks also involved strengthening the bilateral relationship keeping in mind its 'India first' policy and our 'Neighborhood first' policy.

Implications

- The visit by a foreign minister may have cleared some of the bitterness between the two countries.
- However, India can certainly not continue to take its predominant power in South Asia for granted.
- It cannot be indifferent to the developments in the smaller neighbour, as they have wider geopolitical ramifications.
- Both countries have to learn to deal with each other's proximity and acknowledge that there are no alternative but to make amends in ties.

Unrest in Tunisia

Context: At a time when Tunisia must be cherishing the 7th anniversary of the "Jasmine Revolution", the country has crept back to turmoil.

Tunisia's Story

- Tunisia is a small country in northern Africa, along the southern Mediterranean coast.
- The country saw intense civil unrest in 2011, which led to the ousting of the 23 year old authoritarian regime of president "Zine El Abidine Ben Ali".
- The demonstrations were caused by high unemployment, food inflation, corruption, a lack of political freedoms and poor living conditions.
- This (jasmine revolution) subsequently inspired similar demonstrations around the Arab world, which came to be known as Arab Spring.
- While many died in the protests and police action, unlike rest of the Arab world, Tunisia managed to make a fairly comfortable transition to democracy.
- While the country was stable thus far, recent austerity budget cuts and the economic situation have led to some unrest, which could spell danger.

Current Unrest

- IMF had set stringent pre-conditions regarding austerity budget cuts, for offering a loan of \$2.9 billion, which the government has concurred to.

- This implies lower petrol subsidies and higher taxes on cars and utilities, for the reducing fiscal deficit from the currently at 6% of GDP, to 4.9% in 1 year.
- Further, 25% youth unemployment rate, and persisting disparities among regions has also contributed to current unrest.
- Notably, the crumbling of the Tourism industry due to the poor security scenario has affected the economy significantly.
- While the government has promised \$70 million in aid to support the poorer communities in a bid to quell the protests, it has failed to cut ice.
- Notably, PM Youssef Chahed has been cautious in criticising only the violence behind the opposition rather than the dissent against the fiscal reforms.

Way forward

- The PM would now have to show demonstrable progress in implementing democratic reforms to restore confidence in the government.
- Particularly, the 2015 security law and the proposed amnesty for corrupt officials of previous dictatorial regime have been politically controversial.
- These needs to be addressed by building considerable political consensus and garnering popular public support.
- Also, as foreign aid is indispensable, the government will have to tactically balance international players with the domestic political compulsions.
- Significantly, EU would be keenly interested in Tunisian affairs due to the persistent cross-Mediterranean migration.

DEFENCE/SECURITY AFFAIRS

VIDs –Two Layer Security for Aadhar

Context:

- The Unique Identification Authority of India (UIDAI) has been facing a lot of criticism over privacy violations.
- Hence, to reinforce privacy protection, UIDAI has proposed the Virtual Ids, which would be a two-layer security system.

Virtual IDs

- Allegations of access to personal information by random entities, without the consent of individual Aadhaar holders were rampant.
- The widespread fear of misuse of demographic data is also heightened by the fact that India still does not have a data-protection law.
- To address this, UIDAI unveiled the concept of Virtual Ids, which is one of the most significant changes since its inception eight years ago.
- This is a concept of two-layer security system that prevents the possibility of the numbers being stored in many databases.
- Notably, “Virtual Id Numbers” are envisioned to be substituted in all places that require one to give out their unique ID (Aadhaar number).

Functioning Virtual Ids (VID)

- The VID will be a 16-digit random number, which an Aadhaar-holder can generate and use in place of his UID (Aadhaar Number).
- This will ensure that the Aadhaar number is no longer shared, thus obviating any chance of it being leaked.
- What makes the VID user-friendly is that it is linked to the Aadhaar number and there can only be one VID at any point in time for a particular number.
- Moreover, only the Aadhaar-holder will be able to generate the VID and it will be a temporary number, unlike Aadhaar, which stays the same forever.
- Hence, it is pointless to hold on to someone’s VID as it is merely a temporary number like banking “One Time Passwords” (OTPs).

Aadhaar Face Authentication

- The Unique Identification Authority of India has decided to enable Face Authentication for validating Aadhaar cards from July 2018.
- Currently, the UIDAI provides two modes of biometric verification: fingerprint authentication and iris authentication.

- Face authentication will be allowed only in fusion mode along with one more authentication factor either fingerprint or iris or aOTP to authenticate an Aadhaar number holder.
- Face authentication will only be allowed on a “need” basis.

Other Supporting Changes

- UIDAI has also changed the Aadhaar based e-KYC norms, which is the norm for service providers for identifying their customer and maintaining uniqueness.
- Just like how UID was replaced by VID on the Aadhaar holder’s side, UID has been replaced by a UID token on the service provider’s side.
- UID token is a 72-character alphanumeric string that is meant only for system use and acts as a unique-identification serial for a particular customer.
- This prevents the service provider from knowing their consumer’s Aadhaar Number either directly from them or through the verification data base.
- Most Authentication User Agencies (AUAs) are expected to only use the UID token, instead of the Aadhaar number.
- Such AUAs will be called local AUAs, while the few that continue to use the Aadhaar number will be called global AUAs.
- This structure will ensure that even if a local AUAs database is hacked, the Aadhaar number of customers will not be threatened.

Way Forward

- Both the VID and new e-KYC norms significantly address privacy concerns by protect the Aadhaar number from being exposed in day-to-day transactions.
- But privacy experts and activists say that there is a lot more to be done to ensure foolproof security for critical personal information.
- Notably, Aadhaar seeding with all existing databases should be revoked.
- Also, the new VID system should ensure that it doesn’t become too difficult for the poor and illiterate masses will to engage with.

The Undercurrents along LoC and LAC

Context:

- Despite clearer border arrangements with Pakistan, the Indo-China border has been more peaceful.
- This calls for a nuanced analysis of the tactical differences involved.

Disputed Indo-Pak Border

- **Ceasefire Line Era** - India and Pakistan have unsettled border disputes in the Jammu & Kashmir sector, which is a legacy of the 1948 war.
- When peace was agreed, a ceasefire line (CFL) was also demarcated mutually, which was marked on the maps and jointly surveyed by both the armies.
- This CFL, with minor variations, became the Line of Control (LoC) after the Shimla Agreement, which followed the 1971 war for Bangladeshi liberation.
- The new nomenclature was meant to show that J&K was a bilateral dispute between the Pakistani and Indian, which would have to be resolved mutually.
- **Line of Control Era** - LoC remained largely peaceful since Shimla, until the worsening of internal security situation in J&K in the 90s changed it.
- While the J&K crisis itself was largely attributed to Pakistan, Kargil and the subsequent cross border aggressions opened up direct confrontations.
- While things became peaceful again with the 2003 ceasefire, by late 2015, the LoC started heating up again.
- Notably, 2017 was particularly bad with as much as 860 ceasefire violations and 32 soldier deaths.

Border Arrangement with China

- Border disputes between Indian and China culminated in the 1962 Sino-Indian war, and no border arrangement was agreed upon in the subsequent peace.
- Notably, China was able to assert its control over disputed territories, particularly in Ladakh (Aksai Chin).
- While the concept of “Line of Actual Control” (LAC) came about in a bilateral agreement in 1993, there was no concrete settlement on ground positions.
- Significantly, India and China have differing views on where the LAC lies and even its total perceived length by both sides are at a glaring variance.
- Despite these confusing ground realities, the last ever violent clash recorded was in 1975, when an Assam Rifles patrol was ambushed and killed.
- But notably, besides minor clashes between patrols, tense border standoffs have occurred in “Sumdorong Chu in 1987, Depsang in 2013, Chumar in 2014 and Doklam in 2017”.

Cause of this LoC - LAC Anomaly

- While there is no clear LAC demarcation, military commanders concede that both sides understand and agree on the other’s perception for 95% of the LAC.
- Also, the mechanisms for border management between India and China, has been well defined and formalized, which include ceremonial border gatherings.

- Moreover, a lot of quiet informal strategic meetings, coordinated humanitarian assistance and disaster relief training exercises also happen regularly.
- Contrarily, such structures haven't evolved in the Indo-Pak LoC, mainly due to the mutual deep-rooted hostility between India and Pakistan.
- Both armies perceive each other as cultural and historic enemies, which has been reinforced through current political narratives.
- The fact that Pakistan is actively aiding militancy in Kashmir and the speculation that it is covertly sponsoring terrorism elsewhere in India only reinforces hatred.

Way Forward

- Each incident stokes anger on either side, and an unending cycle of retributive violence is set in motion, which can have dangerous consequences.
- While the border ranks view stand-offs with the Chinese as a professional call of duty, the Pakistan case is seen through an emotional and personal prism.
- Reducing emotional rhetoric is indeed difficult but is crucial in easing tensions at the border, which both sides must realize.

US India Proposal on Defence Ties

In News: USA has proposed to have reciprocal military liaison officers at India- US combatant commands.

About Proposed Plan

- The US, currently, has arrangements for military liaison officers with some of its NATO allies and close defense partners.
- This includes Australia, Canada, Japan, Republic of Korea, Philippines, New Zealand and Great Britain.
- In the same lines US has proposed to have ties with India, this will place India in the orbit of America's closest allies.
- According these plan liaison officers will be commissioned by Pacific Command of the US defence forces in Indian military headquarters.

Significance of this Proposal

- India-US signed the foundational military agreement, Logistics Exchange Memorandum of Agreement (LEMOA) in 2016.
- Earlier US administration designated India a Major Defense Partner, current administration is also taking the same stand.
- As a component of taking bilateral strategic relationship, to a new level US promised to take the element of military cooperation between the two countries.
- To deal with assertive Chinese transgressions into Indian Territory, US ties would help India for geo-political maneuver to secure its interests.

India's Stand

- India is not averse to a strong partnership with any country; it remains rightly opposed to any military alliance which could impinge on its strategic flexibility.
- Present US administration's unpredictable pronouncements have adversely affected perceptions of America's reliability as a partner and makes Indian government more cautious.
- India is yet to see any benefits of being designated a Major Defense Partner, with no transfer of American defense technology for making major military platforms in India actually taking place.
- India also seeks greater clarity over the role and charter of liaison officers to understand the value and quality of information that will be shared between the two militaries.
- Due to some hard experiences from the US, India seeks greater economic concessions from US rather considering any military arrangements in first place.

Missile Panic in Hawaii

Context:

- Hawaii has re-introduced Cold War-era sirens and also has text and email warning systems for ensuring the safety of its residents.
- But recently, Hawaii residents received a text message, which falsely stated a ballistic missile threat and asked them to seek shelter immediately.
- This erratic mistake could prove costly and requires scrutiny.

Recent Development

- The text declaring emergency was apparently sent by mistake by an employee at Hawaii's "Emergency Management Agency".
- While the incorrect alert was corrected by email 18 minutes later, for the next 38 minutes, there was no follow-up phone text correction.
- Notably, Hawaii is only 4,661 miles from North Korea, which is well within the 6,000 miles range of the Korea's Hwasong 14 missile.
- While after trigger, the missile will take 20 minutes to reach Hawaii, the pacific command would take 5 minutes to react.

- This effectively leaves residents with just 15 minutes to seek shelter and hence the emergency call caused immense panic.
- Also, as many felt that it was the end of their lives, they tried calling their loved ones, and telephone services too got jammed briefly.
- Most rushed to basement shelters but some decided they'd rather die looking at Hawaii's famed sea beaches.

Official Response

- **Government** - Across ranks, government officials apologized for the mess-up and even a federal investigation was commissioned.
- Officials have also started working on a 'cancellation template' for sending corrections faster to mobile phones.
- Notably, Since the Japanese attack on Pearl Harbors during the WW-II, Hawaii feels impending attacks sharply.
- **Nuclear experts** – They've stressed that a mistaken message could possibly start an unintended nuclear war.
- This is because the enemy could perceive that the fuss is a cover-up for an offensive strike and hence triggers his "first-strike stability" for deterrence.
- They've hence called for a strong calculated review of the current mess up.

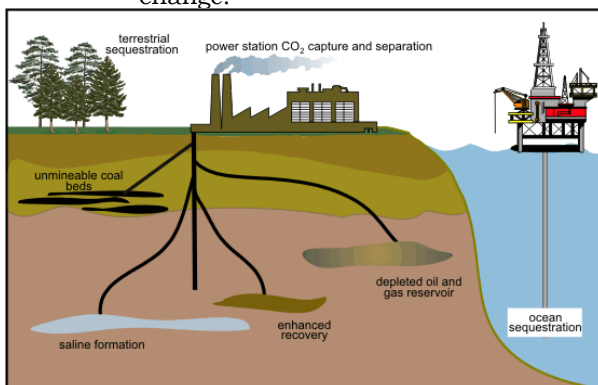
ENVIRONMENTAL AFFAIRS

Soils to Sequester Carbon

Context: The ability of soils to sequester carbon should be given a serious focus by policymakers in the context of climate change actions.

Carbon Sequestration

- It is the process by which carbon dioxide is removed from the Earth's atmosphere and then stored in liquid or solid form.
- It could involve both natural and artificial processes to remove and store carbon.
- Significant carbon pools on earth are found in the earth's crust, oceans, atmosphere and land-based ecosystems.
- The prime purpose of artificially doing this is to mitigate or delay global warming and avoid extreme climate change.



Need for Focusing on Soils

- **Agricultural Practices** - After the changes undertaken as part of the Green Revolution, crop yields increased for several decades.
- But parallel there has also been a dramatic increase in the use of chemicals as pesticides, herbicides and fertilizers.
- The resultant degraded soils are getting to be a prime reason for undermined agricultural yields in many places now.
- **Industrial changes** to agriculture have led to a range of adverse effects including:
 1.
 - loss of biodiversity
 - elimination of beneficial microbes and insects
 - reduction in yield
 - contamination of water bodies and soils
 - Increasing toxicity, etc.
- **Global Warming** - Currently, the world is on a path to be about 3°C warmer than pre-Industrial times.
- This is despite adhering to 2015 Paris climate deal commitments.
- Atmospheric concentrations of carbon dioxide have crossed limits and oceans are already turning acidic.

- But, policies are largely focused on reducing greenhouse gas (GHG) emissions from electricity sector, transport and industry.
- The policy shortfalls call for a renewed focus in understanding how soils can serve as carbon sinks to address the increasing pressures.

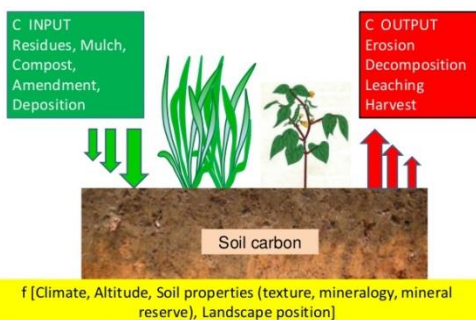
Soils as Carbon Sinks

- **SOC** - Soil organic carbon (SOC) comes from plants, animals, microbes, leaves and wood, mostly found in the first metro or so.
- Soils contain around 2,300 Gt (1 gigatonne = 1 billion tones) of organic carbon, making this the largest terrestrial carbon pool.
- **Benefits** - Increasing SOC through various methods can improve soil health.
- It can contribute to **agricultural yield, food security, water quality**, and also reduce the need for chemicals.
- It helps address **carbon mitigation** and also improve conditions of fresh water, biodiversity, land use and nitrogen use.
- Moreover, carbon sequestration in soils has the potential to **offset GHG emissions** from fossil fuels by up to 15% annually.
- Utilizing this option would thus offer the breathing time before other technologies can help transiting to a zero-carbon lifestyle.

How is it achieved?

- There are many conditions and processes that determine changes to SOC content.
- These include temperature, rainfall, vegetation, soil management and land-use change.
- Thus, increasing Soil Organic Carbon involves adopting sustainable agricultural practices to keep these factors in balance.
- The approaches to increase SOC include:
 - reducing soil erosion
 - no-till-farming
 - use of cover crops
 - nutrient management
 - applying manure and sludge
 - water harvesting and conservation
 - agroforestry practices, etc

Factors controlling soil C sequestration



Way Forward

- India does have a large number of successful **sustainable agricultural practices**.
- The **knowledge of farmers** who have successfully experimented with these methods must be considered in research and policy.
- State-level policy makers should identify the **kinds of support** needed by farmers with small holdings to transition from existing practices.
- There is also a need for revising the existing **fertiliser subsidy policy** and promoting organic fertilizers.
- The ability of soils to sequester carbon is thus a win-win strategy for farmers, people and for climate change.

Safeguard Duty on Solar Cells

In News: The Directorate General of Safeguards (DGS) has proposed a 70% safeguard duty on solar cells and modules imported from China and Malaysia.

Safeguard Duty

- The provision is facilitated in GATT (General Agreement on Tariffs and Trade), 1994.
- It allows a WTO member to restrict temporarily, imports of a product if its domestic industry is affected by a surge in imports.
- In contrast to antidumping duties and countervailing duties, safeguard measures are, in principle, applied regardless of the exporting country.

- The Central Government after conducting an enquiry, if satisfied of a potential impact, may by notification impose a safeguard duty.

Rationale for DGS Proposal

- While solar cells are imported from Malaysia, Singapore and Taiwan as well, a major quantity is being imported from China.
- China's huge production and excess capacities of solar cells faced with hindrances in exports to the EU and USA recently.
- It naturally had to find an alternative outlet and thus shifted its export focus towards India.
- The DGS move thus comes after a plea was filed by Indian Solar Manufacturers Association (ISMA) before the DGS.
- It claimed that the surge in imports in solar cells had led to many domestic production facilities lying idle and incurring heavy loss.

Concerns

- **Cost** - There are apprehensions that the duty, if levied, would shoot up the project cost by about 40%.
- The Indian solar industry is thus concerned about the project costs and solar tariffs going up on account of the proposed duty.
- Notably, the burden on account of the above would fall on solar original equipment manufacturers (OEMs).
- Sadly, the ultimate burden gets passed on to the end consumer.
- **Solar Mission** - The Indian government has set a target of installing 175 GW of renewable energy capacity by 2022.
- Notably, an ambitious 100 GW of this is to come from solar projects.
- There are fears that the proposed safeguard duty on imported solar cells would thwart India's solar mission.
- **Domestic players** - India recently lost a case in the WTO brought on by a US complaint against the domestic content requirement programme.
- The requirement mandated that only locally manufactured cells and modules could be used to build solar projects.
- The ability of the local players to compete has already been weakened by losing in WTO.
- Given this, while the proposed duty may help the domestic manufacturers in the short term, its sustained benefits are uncertain.
- Also, for domestic manufacturers situated on special economic zones, the safeguard duty would yield counterproductive results.
- Notably, solar cell makers in special economic zones account for about 60% of the installed capacity.
- **Discoms** - Chinese imports have played a vital role in enabling bidders to quote progressively lower tariffs.
- If the proposed duty is levied, the Discoms will be further dissuaded from signing power purchase agreements on account of the resultant tariffs rise.

Way Forward

- The decisions on duty should consider the country's manufacturing capacity and the prevailing energy requirements.
- The government has to ensure that the duty is prospective in nature and not impact the ongoing solar projects.
- The government should thus be aware of the possibility of a policy paralysis leading to slow down in new investments.
- Chinese imports are a threat to Indian manufacturers, but a lasting solution lies in reassessing domestic duty structures and addressing other impediments to the sector.

GS

- The Directorate General of Safeguards works under the Ministry of Finance, Department of Revenue.
- It has been created to conduct investigations for imposition of Safeguard Duty, Specific Safeguard Duty as specified under the Customs Tariff Act, 1975.

Prolonged Heat-Wave

- New research estimates find out a summer may last up to eight months by the 2070s for the Gangetic plains.
- This condition will prevail if greenhouse-gas emissions are not cut to limit the global temperature increase to 2°C.
- Combined scientific measure of heat and humidity is termed as "wet-bulb temperature", the study claims that fluctuations in wet-bulb temperature is the reason for the heat waves.
- The populations with outdoor jobs, cardiovascular and respiratory conditions are likely to be the most vulnerable and this could even give rise to new disease and threaten agriculture.

Heat Wave

- A Heat Wave is a period of abnormally high temperatures, more than the normal maximum temperature that occurs during the summer season in the North-Western parts of India.
- The Indian Meteorological Department (IMD) has given the following criteria for Heat Waves :

- Heat Wave need not be considered till maximum temperature of a station reaches at least 40°C for Plains and at least 30°C for Hilly regions
- When normal maximum temperature of a station is less than or equal to 40°C Heat Wave Departure from normal is 5°C - 6°C Severe Heat Wave Departure from normal is 7°C or more
- When normal maximum temperature of a station is more than 40°C Heat Wave Departure from normal is 4°C to 5°C Severe Heat Wave Departure from normal is 6°C or more
- When actual maximum temperature remains 45°C or more irrespective of normal maximum temperature, heat waves should be declared.
- Higher daily peak temperatures and longer, more intense heat waves are becoming increasingly frequent globally due to climate change.

Health Impacts of Heat Waves

- The health impacts of Heat Waves typically involve dehydration, heat cramps, heat exhaustion and/or heat stroke. The signs and symptoms are as follows:
- **Heat Cramps:**Ederna (swelling) and Syncope (Fainting) generally accompanied by fever below 39°C i.e. 102°F.
- **Heat Exhaustion:** Fatigue, weakness, dizziness, headache, nausea, vomiting, muscle cramps and sweating.
- **Heat Stroke:** Body temperatures of 40°C i.e. 104°F or more along with delirium, seizures or coma. This is a potential fatal condition.

Chiru Goat

- Chiru goat is also known as the Tibetean antelope.
- It is native of China (Tibet, Xinjiang region) and India (North Eastern Ladakh region) and regionally extinct in Nepal.
- Its numbers and distribution have decreased sharply as a result of commercial hunting for the underfur for making of shawls.
- In India, it is killed for making of the famous Shahtoosh shawls, which is renowned for its quality from Srinagar.
- In 2017, it has been included in “Near Threatened” category by IUCN.
- The parliamentary standing committee on science & technology, environment & forests had recommended to the ministry of environment, to conserve and breed the Chiru goat, which can then be given to the shawl makers.
- The motive behind such recommendation is to provide a sustainable livelihood opportunity to the people of Jammu and Kashmir.
- However, Ministry of Environment has ruled out the possibility of conservation breeding citing that it may lead to decline in its population due to commercial poaching.

BIO/ HEALTH ISSUES

Pictorial Warning on Tobacco Products

In News: The Supreme Court has stayed an earlier order of the Karnataka High Court which struck down the central Rules on tobacco packaging.

What do the rules specify?

- In 2014, the Ministry of Health notified amendments to The Cigarettes and Other Tobacco Products (Packaging and Labeling) Rules, 2008.
- It was mandated that the specified health warning shall cover at least 85% of the principal display area of the package.
- Of this, **60%** shall cover **pictorial** health warning and **25%** shall cover **textual** health warning.
- This shall be positioned on the top edge of the package and in the same direction as the information on the principal display area.

Implementation

- The Rules were to come into effect from April 1, 2015.
- However, there were cries of outrage from the tobacco industry.
- Subsequently, the Lok Sabha Committee on Subordinate Legislation (CoSL) examined the government’s 2014 notification.
- After debates and delays, the rules finally came into effect from April 1, 2016, with the government stipulated 85% warning itself.
- Resultantly, India now has some of the world’s most stringent rules on pictorial warnings on tobacco packets.

Effectiveness of Pictorial Warning

- Health advocates have long argued for prominently displayed pictures of the impacts of tobacco consumption.

- These, sometimes grotesque depictions of tumors, are more effective than smaller pictures or written warnings.
- The Global Adult Tobacco Survey (GATS) 2016-17, released by the Ministry of Health and Family Welfare adds validity to this.
- The study has found that the warnings play a role in motivating more than half the number of smokers who quit.
- It highlighted that around 60% of cigarette smokers and around 50% of bidi smokers had thought of quitting.
- Another 46% of smokeless tobacco users had also thought of quitting because of the warnings on smokeless tobacco products.
- The new rules have effectively controlled tobacco and saved around 80 lakh lives in India.

Recent Petition

- A study on the economic burden of tobacco-related diseases in India said that the estimated total cost attributable to tobacco use was around Rs 1 lakh crore in 2011.
- This is 12% more than the combined state and central government expenditure on healthcare in that year, and 1.16% of India's GDP.
- **HC** - However, the tobacco industry approached the Karnataka High Court.
- It argued that no correlation had been established between tobacco and the diseases depicted on the packs.
- It said the industry's right to conduct business was being unfairly affected because of the warnings.
- Accepting the contention, the court ruled that India should go back to the 40% warnings that existed before the notification of the 85% Rules.
- **SC** - However the Supreme Court has stayed the Karnataka High Court's order.
- It held that health of a citizen has primacy and he/she should be aware of that which can deteriorate the condition of health.

ATS

- Global Adult Tobacco Survey (GATS) was conducted by the Tata Institute of Social Sciences.
- It was in association with the Ministry of Health and Family Welfare, Government of India and the World Health Organization.
- It is a national representative survey helping countries fulfill the obligations under WHO's Framework Convention on Tobacco Control.

Kala Azar

- India has missed the 2017 deadline for elimination of Kala Azar.
- Elimination is defined as reducing the annual incidence of Kala Azar to less than 1 case per 10,000 people at the sub-district level.
- Visceral leishmaniasis (VL), also known as kala-azar, is caused by the protozoan Leishmania parasites.
- It is transmitted to humans through infected sandflies.
- It is characterized by irregular bouts of fever, weight loss, enlargement of the spleen and liver, and anaemia.
- The parasite migrates to the internal organs such as the liver, spleen, and bone marrow, and, if left untreated, may result in the death.
- It is endemic to the Indian subcontinent in 119 districts in four countries (Bangladesh, Bhutan, India and Nepal).
- India itself accounts for half the global burden of the disease.
- Further, a little-known skin condition called Post Kala Azar Dermal Leishmaniasis (PKDL), a red flag for transmission of Kala Azar has been growing steadily over the past few years.

TECHNOLOGICAL AFFAIRS

The Fallacy of Technology Centric Solutions - PDS and DBT

Context:

- Various new governance tools introduced are derailing India's public distribution system (PDS) in several States across the country.
- Notably, disruptions caused due to compulsory "Biometric Authentication" and "Direct Benefits Transfer" (DBT) is hurting millions.

Jharkhand's Case

- While Jharkhand's PDS has drastically improved over the past decade, its move to make Aadhaar authentication compulsory has proved disastrous.

- A large numbers of people, especially among vulnerable groups such as widows and the elderly, found themselves excluded from the PDS.
- Even those who managed to buy rations faced considerable inconvenience due to connectivity and biometric failures.
- Notably, there was also a revival of corruption, as PDS rice meant for those who failed the biometric test was siphoned off.
- **Card Cancellation** – Last year, Jharkhand mass-cancelled 11 lakh ration cards that weren't linked to Aadhaar by labelling them "fake".
- As this was without verification, the action was inhuman and illegal and expectedly didn't stand scrutiny, and was in fact retracted later.
- Many cancelled cards actually belonged to families that had been unable to link their card with Aadhaar for no fault of their own.
- Despite this, Jharkhand continues to aggressively push Aadhaar and has even restricted the monthly ration of 5 kg rice per person to only those individuals who've linked their Aadhaar to the ration database.
- UIDAI is participating in the crusade to make Aadhaar-based biometric authentication compulsory in various contexts.
- **Direct Benefits Transfer** - Under DBT, people have to collect their food subsidy in cash from the bank before using it to buy rice from the ration shop.
- While until now, rice at the ration shop cost Rs.1 per kg, with DBT it will cost Rs.32, the remainder is what will be compensated for.
- While a DBT pilot is on in Ranchi District, the State government already seems convinced of its success and is planning to extend it elsewhere.
- The ground realities have been completely ignored as it is easily perceptible that the pilot is a clear disaster, with public anger mounting against DBT.
- **The problem** - People waste enormous time shuttling between the banks, pragyakendras (banks insist on withdrawing cash here) and ration shops.
- At every step, there are long queues, and for many people, accessibility is also an issue, due to the location of the entity, their age or disability.
- The initial adaptation in particular is tiresome as there is no clarity on which bank account of a family gets selected for the DBT.
- DBT might work better if people had some cash reserves, but so many people in rural Jharkhand have so little cash.

Larger Trend

- While Jharkhand is among the worst cases of Aadhaar and DBT driven destabilisation of the PDS, similar trends are noticed in other States too.
- Bihar, Rajasthan and Chhattisgarh have all seen their PDS networks come under dire strain in the pilot blocks.
- Notably, many senior officers in the food department oppose this technological push privately but have no choice but to follow instructions from the top.
- There is considerably push by the union government, which is indicative of growing centralisation and technocracy in India's social sector.
- The most disturbing aspect of this trend is a lack of concern for the hardships that people face in situations.
- There isn't even an effective arrangement for grievance redressed or information sharing.

MISCELLANEOUS

IN-SHORT

Sankalp Programme

- Pre-Retirement Counselling (PRC) Workshop 'Sankalp' for the retiring employees of Ministries/Departments was organised by the Department of Pensions & Pensioners' Welfare (DOP&PW).
- The aim of this program is to counsel retiring employees for joining into advisory bodies of their respective offices and also to dispose of grievances.
- DOP&PW has so far conducted Pre-Retirement Counselling for more than 3000 employees under the Sankalp project.
- A web portal for "Sankalp" programme has also been launched, for Pensioners, Pensioner Associations and NGOs to avail the services.
- This programme is not to be confused with "Sankalp Se Siddhi" Scheme.

Sankalp Se Siddhi

- Sankalp Se Siddhi (Attainment through Resolve) programme is a new initiative launched by union government for a New India movement from 2017 to 2022.
- It was launched on the 75th anniversary of Quit India movement.
- New India movement 2017-2022 aims to free up the country from many social evils such as poverty, corruption, terrorism, filth and others by creating awareness among the people.

Malimath Report

- Justice Malimath Committee or The Committee on Reforms of the Criminal Justice System was constituted by the Home Ministry in 2000.
- The committee had submitted its report in 2003 and made recommendations on crime investigation and punishment.
- The recommendations were never implemented. It is now going to be revisited by the government.
- One of its key recommendations is admissibility of confessions made before a police officer as evidence in a court of law.
- Other recommendations are
 - Stringent punishment for false registration of cases,
 - Constituting a National Judicial Commission and
 - Amending Article 124 to make impeachment of judges less difficult
 - Standard of "proof beyond reasonable doubt" followed in criminal cases be done away with.

Sholas

- The Sholas are a mosaic of mountain evergreen forests and grasslands.
- They are found only in high altitude (>1500 metres above sea level) regions within the tropics, and are limited to the southern part of the Western Ghats.
- They are characterized by undulating grassland patches, interspersed with thickets of stunted evergreen tree species.
- Recent study has indicated that timber plantations, , expanding agriculture and the spread of invasive species reduced two thirds of the shoals in palani hill ranges of Western Ghats.
- There is a marked 67% decline in grassland area compared to 1973 level.
- The natural march of invasive species such as prolific-seed-producer, acacia and the policy push for plantations in 1990s seems to be the main cause for decline.
- Fragmented grasslands also displaced endemic species Nilgiri Pipit.

Nilgiri Pipit

- Nilgiri Pipit (*Anthus nilghiriensis*) is a bird endemic to the Western Ghats of Kerala, Tamil Nadu and Karnataka, southern India.
- It occurs on grassy upland slopes interspersed with bushes and trees, mainly above 1,500 m, and is commonest over 2,000 m.
- It is listed as "**Vulnerable**" in IUCN red list category.
- It feeds mostly on creeping grass in valleys, but nests in marshy grasslands with slightly taller grasses and sedges, particularly near streams.
- It has been recorded consuming the seeds of grasses and herb.
- Its grassland habitat is gradually being converted to plantations of tea, eucalyptus and silver wattle *Acacia dealbata*.

Saksham – 2018

- Saksham is a month long awareness programme by the Ministry of Petroleum and Natural Gas.
- It is aimed to create awareness towards "Fuel Conservation" through judicious utilization and conservation of petroleum products and switching to cleaner fuels.
- It is organized by PCRA- Petroleum Conservation Research Association and other oil & gas PSU's under the aegis of Ministry of Petroleum and Natural Gas.

IPrism

- IPrism is an Intellectual Property (IP) competition, organized by the Cell for IPR Promotion and Management (CIPAM), Department of Industrial Policy and Promotion (DIPP).

- CIPAM collaborated with ASSOCHAM and ERICSSON India for this event.
- This competition invites students to submit films on piracy & counterfeiting which causes significant loss to the industry and pose serious safety threats to the consumers.
- The competition aims to foster a culture of innovation and creativity in the younger generation.

RashtriyaSanskritiMahotsav

- The 7th edition of 'RashtriyaSanskritiMahotsav-2018' was inaugurated at Bengaluru.
- It was conceived in 2015 by Ministry of Culture.
- It was organised with intent to showcase the rich cultural heritage of the country.
- This year, Ministry of Culture organised RSM under the Ek Bharat Shreshtha Bharat mission.
- The 'Ek Bharat Shrestha Bharat' programme under Ministry of HRD, aims to actively enhance interaction between people of diverse cultures living in different States and UTs in India.
- As per the programme, each year, every State/UT would be paired with another State/UT in India for reciprocal interaction between the people.

Conference on Dharma-Dhamma

- 4th International Conference on Dharma-Dhamma at Rajgir, Bihar has been inaugurated.
- The Conference is being organised by Nalanda University in collaboration with the Centre for Study of Religion and Society, and the Ministry of External Affairs.
- It aims to provide an opportunity to academics and policy makers from India and abroad to share ideas and build collaboration for a better world.

SFOORTI application

- Ministry of Railway has launched Smart Freight Operation Optimisation & Real Time Information (SFOORTI) Application.
- Both passenger and freight trains can be tracked over Zones/Divisions/ Sections can be viewed through this application.
- Position of Rakes for specific type of Stock, loading and unloading of goods can also be viewed through this application.
- It provides features for monitoring and managing freight business using Geographic Information System (GIS) Views and Dashboard.

HunarHaat

- 5th "Hunar Haat" trade fair was organised at Mumbai by Minority Affairs Ministry.
- This Expo is organised under "USTTAD" scheme in different parts of the country.
- "HunarHaat" have become a successful mission to provide employment and opportunities for artisans, craftsmen and culinary experts in national, as well international markets.

USTTAD Scheme

- Upgrading the Skills and Training in Traditional Arts/Crafts for Development (USTTAD) is a scheme of Ministry of Minority Affairs.
- It aims at preserving and promoting the rich heritage of traditional arts & crafts of the Minority communities.
- It also envisages at boosting skill of craftsmen, weavers and artisans who are already engaged in traditional ancestral work.

SC Direction on Mullaperiyar Dam

- Supreme Court directed union government to constitute a special committee to prepare for disaster management in Mullaperiyar dam.
- SC also ordered Tamil Nadu and Kerala Governments to prepare their disaster management plan on the dam.
- Concerns pertaining to the dam's stability and lifespan would continue to be examined by an existing committee set up in 2014.
- The dam situated at the confluence of the Mullayar and Periyar rivers is located entirely in Kerala.
- The dam is operated by the Tamil Nadu government for its irrigation and power generation needs.

Ice sheets found in Mars

- NASA has detected thick underground ice sheets along the middle latitudes of the Mars.
- This is believed to be a potential source of water that could help sustain future human outposts.
- The water could be used for drinking and potentially conversion into oxygen to breathe.

U5MR

- India registered a significant decline in under-five child mortality.
- It is calculated per 1000 live births, in India it is 39 out of 1000 births.
- India with the current rate of decline of U5MR is on track to meet the SDG target for under-five child mortality of 25 by 2030.

International Termination Charges (ITC)

- The Telecom Regulatory Authority of India (TRAI) cut termination charges for international incoming calls to Land line and wireless connections.
- International termination charges (ITC) are payable by an international long-distance operator (ILDO), which carries calls from outside the country, to an access provider in the country in whose network the call terminates.
- ITC is one of the source of foreign earnings for the country.

North Koel Reservoir

- A Memorandum of Understanding has been signed by Ministry of Water Resources, River Development and Ganga Rejuvenation for completion of North Koel reservoir project.
- Part of a fund for this project is derived under PMKSY's LTIF- Long term Irrigation Fund and rest from state governments contribution
- The project situated on North Koel River, a tributary of Sone River.
- It will provide irrigation to most backward and drought prone districts in Jharkhand and Bihar.

PradhanMantriKrishiSinchaiYojana (PMKSY)

- This scheme has been formulated with the vision of extending the coverage of irrigation and improving water use efficiency in a focused manner.
- It focuses on end to end solution on source creation, distribution, management, field application and extension activities.
- The scheme now comes under Ministry of Agriculture and farmer's Welfare.
- PMKSY has been formulated amalgamating schemes of
 1. Accelerated Irrigation Benefit Programme (AIBP) of the Ministry of Water Resources, River Development & Ganga Rejuvenation (MoWR, RD&GR),
 2. Integrated Watershed Management Programme (IWMP) of Department of Land Resources (DoLR).
 3. On Farm Water Management (OFWM) of Department of Agriculture and Cooperation (DAC).

SAREX - 18

- It is a joint search and rescue exercise between India and Japan to help increase mutual understanding in Anti-Piracy operations.
- During the exercise, helicopters of the Japan and Indian Coast Guard will perform cross landing operations to improve compatibility between the two forces.
- This year, it will be held in Chennai.
- Japanese coast guard ship "Tsugaru", a patrol vessel with helicopters will participate in this exercise.

Members of Parliament Local Area Development Scheme (MPLADS)

- The Cabinet Committee on Economic Affairs has recently given its approval to continuation of MPLADS till the term of the 14th Finance Commission i.e. 31.03.2020.
- The MPLAD Scheme is an ongoing Central Sector Scheme which was launched in 1993-94.
- It enables the Members of Parliament to improve physical and institutional infrastructure in their constituencies.
- Lok Sabha MP chooses these villages from the constituency he/she represents and the Rajya Sabha MP chooses it from the state he/she represents.
- MPs cannot pick villages which belong to themselves or their spouses.
- Gram Panchayat would be the basic unit for development.
- The scheme requires MP to draft a village development plan, identify gaps in funding and mobilizing MPLAD funds to create additional resources specifically from CSR initiatives of various corporate houses.
- District Collectors will carry ground-level surveys along with monthly review meetings to monitor progress.

LEADS Index

- Logistics Ease Across Different States (LEADS) index is a composite indicator to assess international trade logistics across states and Union territories.
- It is based on a stakeholders' survey conducted by Deloitte for the **Ministry of commerce and industry**.
- Gujarat topped the first-of-its-kind index, Punjab and Andhra Pradesh took the second and third positions, respectively.
- The index is loosely based on the World Bank's biannual Logistics Performance Index (LPI).
- India was ranked 35 among 160 countries in LPI in 2016, up from 54 in 2014.
- LEADS is based on eight parameters such as infrastructure, services, timeliness, track and trace, competitiveness of pricing, safety of cargo, operating environment and regulatory process.

Ancient Monuments and Archaeological Sites and Remains Act (1958)

- Union government has tabled amendments to Ancient monuments and archaeological sites and remains act in the parliament.
- The Lok Sabha passed the amendments to the Act, the Bill is yet to be cleared by the Rajya Sabha.

- The Act was originally instituted conservation measures and banned construction activities near protected monuments.
- The amendment now allows to carry out public works within the 100 m prohibited zone.

UMANG App

- UMANG (Unified Mobile Application for New-age Governance) is envisaged to make e-governance.
- It is developed by Ministry of Electronics and Information Technology (MeitY) to drive Mobile Governance in India.
- It provides a unified approach where citizens can install one application to avail multiple government services.
- The app services include Aadhaar, DigiLocker, and Bharat Bill Payment System (BBPS). Etc.

Farthest known galaxy

- NASA has spotted the farthest known galaxy in the universe, a primitive cluster of stars just 500 million years old.
- The galaxy was named SPT0615-JD.
- Preliminary analysis suggests that the galaxy is less than 2,500 light-years across.

Annual Status of Education Report

In News: Annual Status of Education Report (ASER), 2017 has been brought out by NGO Pratham.

ASER

- The ASER report is being published by a NGO called Pratham.
- ASER report is a household-based survey that collects information on children's schooling status and basic learning outcomes in almost every rural district in the country.
- The ASER survey is an enormous participatory exercise that has involved about 500 organizations and upwards of 25,000 volunteers every year.
- Estimates of children's schooling and learning status are generated at district, state and national levels.
- ASER is the only annual source of data on children's learning outcomes available in India.
- The ASER model has been adapted for use by thirteen other countries across three continents.

About Report

- Previous ASERs focused on 6-14 year olds and have reached almost all rural districts to make estimates representative at district, State, and national levels.
- However, ASER 2017 focuses on an older age group i.e. youth who are 14 to 18 years old.
- Also, it was conducted in 28 districts spread across 24 States and generated only district level estimates.
- The survey looks 'Beyond Basics', exploring a wider set of domains beyond foundational reading and arithmetic abilities of youth.

Key Highlights

- **Enrolment** - In 14-18 age groups, around **14% are not currently enrolled** in school or college.
- However, this number varies a lot with age, ranging from around 5% at age 14 to around 30% at age 18.
- The low 5% at age 14 is a positive outcome of the compulsory education for 6-14 years under the RTE.
- The enrolment ratios for boys and girls are almost the same at 14 years.
- However, at 18 years 32% of girls are not enrolled, as against 28% for boys.
- There are also **discrete differences among States** on the number of youth who are not enrolled in appropriate levels of schooling.
- **Knowledge** - 14% of rural youth in the age group of 14-18 failed to identify the map of India.
- A worrying 36% of those surveyed did not know that Delhi is the capital of India.
- 60-80% of them cannot even tell the time correctly.
- About 25% of this age group still cannot read basic texts fluently in their own language.
- 53% of all 14-year-olds in the sample can read English sentences.
- More than half in the age group struggle with simple division (3 digit by 1 digit) problems.
- **Besides**, the report points to a massive digital divide, with poor access to facilities.
- In this again, girls were worse off in terms of access to computers and the Internet.

Significance

- Almost 10% of India's population falls in the 14-18 group.
- Thus the 14% of the **un-enrolled** population in this translates to a total of 125 million young Indians out of formal education system.
- The enrolment scenario highlights **gender discrimination**, with the number of girls falling sharply with age.
- India's predominantly youth population is seen as a **demographic dividend**.
- But the education scenario fall short of capitalizing on this factor and deriving an economic dividend.
- As, a large number of Indian youths **lack even basic employability**.
- Successive studies point to progress in raw enrolment of children in school, with **poor achievement on learning outcomes**.

Suggestions of the Report

- Government need to focus more on increasing the number of teachers, providing basic amenities and digital infrastructure.

- It spotlights urgent need to focus on creating excellence among educators and suggests to plug the vacancies in teaching posts.
- Centre and State expenditure on education must increase from 3.2 per cent of GDP, inching up closer to the global norm of above 5 per cent.
- Instead of squeezing salaries in a bid to curb the revenue deficit and governments need to capitalize social sector expenditure.
- Cognition skills could improve when rural students can relate to the subject matter, through which farm sector and education reforms can go hand in hand.

Way Forward

- Policy makers must acknowledge that all expenditure on good education is bound to have a multiplier effect on productivity.
- The right to free and compulsory education must be extended to the 14-18 age group as well, beyond the 6 to 14 at present.
- Guaranteed inclusion will empower those in the 14-18 age groups and help them acquire finishing education.
- This is so vital for their participation in the workforce, as India lacks trained manpower to boost its manufacturing capabilities.
- Equipping them with the skills, especially job-oriented vocational capabilities are essential.
- Learning deficits highlight the need for pedagogic tools that synchronize knowledge with lived realities.
- Scaling up access to digital facilities by bringing all children under the umbrella of a school, college or training institution is desirable.

SC's Order on 'Padmavat'

In News:

- The Supreme Court has stayed the notifications and orders by certain States to prohibit the exhibition of the movie Padmaavat.

Rationale

- There were apprehensions that states were sympathising with fundamentalist elements for protecting the vote banks.
- Notably, Rajasthan, Gujarat, Haryana and Madhya Pradesh have been explicit in voicing support for the protestors who have clearly violated the law.
- However, these were legally masked as “law and order issues” to curtail freedom of expression.
- Freedom of speech is indeed subject to reasonable restrictions (like public order) under article 19.
- But governments should not succumb to the use of “violent threats and intimidations” by fringe groups.
- The SC has thus ruled that states have to balance between the twin responsibility of protecting free speech and maintaining law and order.
- States cannot choose between the two or compromise one for the other as both are important state duties.

Is the call for a ban justified?

- The film does not claim any historical accuracy and the protestors taking offence have not even seen the film.
- Despite this, several cuts were already suggested by a special panel formed by the CBFC to re-examine the film after initial certification.
- This was in addition to the filmmakers agreeing to change the name of the film from Padmavati to Padmaavat.
- Notably, Padmaavat was the actual title of the medieval fictional poem which the movie is based on.
- Given these responses for public sentiments, a further call for a ban seems irrational.

Padmavati

- **Poetry** - The earliest source to mention her is "Padmavat", an epic fictionalized poem written in 1540 CE.
- It was written by Malik Muhammad Jayasi, a Sufi poet and a resident of Jayas in Awadh, a very long way from Chittor, Rajasthan.
- The story with elements of fantasy portrays her as an exceptionally beautiful princess of the Singhal kingdom (Sri Lanka).
- RatanSen, the Rajput ruler of Chittor, who heard about her beauty went on an adventurous quest, won her hand in marriage and brought her to Chittor.
- Following this, AlauddinKhalji, the Sultan of Delhi who heard about her beauty laid siege to Chittor to obtain her.
- Many events occurred during the period of the siege including the killing of RatanSen, till the Fort was finally captured by Khalji.
- But before the capture, Padmavati and her companions committed Jauhar (self-immolation) to protect their honour.
- After her sacrifice, the Rajput men died fighting on the battlefield.

- **History** - According to the poem, Padmavati was born in 1540 which is 224 years after Khalji's death as per historical records.
- Khalji defeated the Rana of Chittor in 1303 and died in 1316, but no one by the name Padmini or Padmavati existed then.
- There are just only two historical facts relevant to the story - i) Khalji's attacks on Chittor, ii) RatanSen's defeat.
- **Oral tradition** - Besides the verifiable historical facts, there are other facts, culturally constructed through the oral tradition of telling and retelling stories.
- For the common people who are untrained to distinguish historical facts from cultural and popular memory, this acquires the status of history.
- Evidently, this popular memory is subject to quick metamorphoses just as the Padmavati story.
- The story has travelled place and time from North India and Rajasthan to Bengal from the 16th to the 20th century and has undergone several mutations.

Controversy

- There are arguments that there were differentiation between historical facts and the popular versions of the story as depicted in the film Padmavati.
- **Khalji** - Sultan AlauddinKhalji had earned a reputation among contemporary and modern historians for several achievements.
- These include-
 - successful thwarting of Mongol invasions of India
 - conquest of large territories
 - strictly enforcing low prices of commodities in the markets for the common people's daily purchases
 - declared defiance of the Shariat in matters of governance, etc
- But Khalji was certainly not known for his lustful pursuit of women.
- The movie revolving around Khalji's conquest of Chittor for Padmavati undermines the respect for the ruler.
- **Padmavati** - For the Rajput women, she is a heroic queen who had committed Jauhar to save her honour against a lusty Muslim invader.
- She is thus a revered queen and seen as the epitome of sacrifice.
- But rather than highlighting her sacrifice, the film is criticised of highlighting the romantic angle instead.
- The visuals of the heroine singing and dancing evidently go against the patriarchal telling of Padmavati's story, circumscribed by notions of purity and honour.
- **Caste honour** - KarniSena is a self-styled Rajput organisation which is very particular of caste honour.
- This is now raising anxiety about the film's scheduled release as it alleges that the film wrongly depicts the traditions in relation with the Rajput clan.

Larger Implications

- **Law and order** - The UP government has written to the Union I&B Ministry requesting that the CBFC be alerted of the "public sentiment" about distortion of "facts" in the film.
- The characterization and depiction of Muslim invaders and Hindu clans in the film could possibly lead to a communal clash.
- Thus, there is an apprehension that the release of the film would lead to law and order disruption.
- **Freedom of expression** - However, as per Supreme Court's earlier verdicts, a mere threat to public order cannot be a ground to suppress freedom of expression.
- The insistence on demanding accuracy in period dramas is an infringement on creativity.
- Notably, this is a film based on a work of fiction.
- However, the controversy now is centred on the question of "historical facts" in connection with the film.
- Reacting to this in legal terms is like endorsing the notions of Rajput honour and Hindu-Muslim enmity fuelled by random groups.

Chittor Fort

- The Chittor Fort or Chittorgarh in Rajasthan is one of the largest forts in India.
- It is designated as a World Heritage Site by the UNESCO.
- The fort was the capital of Mewar and is today situated in the Chittorgarh town.
- It sprawls over a hill above the plains of the valley drained by the Berach River, a tributary of the Banas River.

EC's Disqualification of AAP MLAs

In News: Election Commission (EC) has recommended to the President that 20 of AamAadmi Party's (AAP) MLAs be disqualified for holding offices of profit.

Background

- The ArvindKejriwal-led Delhi government passed an order back in 2015, **appointing** 21 MLAs as parliamentary secretaries.
- The appointment of MLAs was **challenged** by an advocate arguing that these MLAs were holding 'office of profit'.
- There was also a petition before the then President seeking their disqualification.

- In response, the Delhi Assembly passed the Delhi Member of Legislative Assembly (Removal of Disqualification) (Amendment **Bill**), 2015.
- The bill excluded the parliamentary secretaries from 'Office of Profit' with retrospective effect.
- However, **President declined assent** to the Bill.
- Later on, the Election Commission (EC) held a **personal hearing** for 21 AAP MLAs.
- Subsequently, the Delhi High Court set aside a government order that appointed 21 of the party's MLAs as parliamentary secretaries.
- Very recently, the Election Commission has recommended the President for **disqualification** of the 20 AAP MLAs (one resigned).

Parliamentary Secretary

- A Parliament Secretary often holds the rank of Minister of State and has the same entitlements.
- He/she is appointed to assist the ministers and is assigned to a government department.
- Many states in the Indian Union have instituted the post of Parliamentary Secretary and have also appointed MLAs to the post.

'Office of Profit'

- 'Office of profit' (OoP) is not clearly defined in the Constitution.
- But deriving from the past judicial pronouncements, five tests have been laid down to check if an office is an OoP or not.
- They are:
 - whether the government makes the appointment
 - whether the government has the right to remove or dismiss the holder
 - whether the government pays remuneration
 - what the functions of the holder are
 - does the government exercise any control over the performance of these functions
- In all, the word 'profit' has always been treated equivalent to or a substitute for the term 'pecuniary gain' (financial gain).

Legal Concerns

- **Office of Profit** - MPs and MLAs are supposed to hold the government accountable for its work.
- Logically, holding an "Office of Profit" under the government may make them susceptible to government influence.
- They may fall short of discharging their constitutional mandate.
- **Number of members** - Article 164(1A) specifies that the number of ministers including the Chief Minister has to be within 15% of the total strength of the Assembly.
- In the case of Delhi, which is not a 'full' state, the number of Cabinet Ministers cannot exceed 10% of the total 70 seats.
- This is as per Article 239AA of Constitution which deals with Special provisions with respect to Delhi.
- As a Parliament Secretary often holds the rank of Minister of State, their numbers should also be considered in meeting this limitation.
- On violation of this, various High Courts have earlier struck down the appointment of Parliamentary Secretaries as unconstitutional.

Way Forward

- The constitutional procedure is that if there is any petition pertaining to an office of profit, it goes to the President.
- She/he checks Article 102 and 191 of the constitution and Section 15 of the National Capital Territory of Delhi Act 1991 and takes the EC's opinion.
- After the presidential sign and seal is placed on the EC's recommendation, the 20 MLAs will stand disqualified.
- Notably, the remedial measures for the AAP in court are limited.
- This is because the Delhi High Court has already heard the matter and quashed the appointments.
- Moreover, the Election Commission, mandated by the Constitution to deal with such matters, has already dealt the issue at length.

What the law says

Article 102 (1)(a) says a person shall be disqualified from being a member of either House of Parliament if he holds any office of profit, among other grounds

Article 103 says if a question arises whether a member has incurred such disqualification, it will be referred to the President's decision. The President shall obtain the Election Commission's opinion and act accordingly



Article 191(1) contains a similar provision for MLAs and MLCs in the States. Legislators in Delhi are covered by corresponding provisions in the Government of National Capital Territory Act, 1991

Appointment of CEC

- Recently new Chief Election Commissioner was appointed by President of India.
- At present, the Election Commission of India (ECI) is a three-member body, with one Chief Election Commissioner (CEC) and two Election Commissioners (EC).
- Under Article 324(2) of the Constitution of India, the President of India is empowered to appoint the CEC and the ECs.
- Article 324(2) also empowers the President of India to fix from time to time the number of Election Commissioners other than the CEC.
- When any other election commissioner is so appointed the CEC shall act as the chairman of the election commission.
- All Election commissioners have equal powers and receive equal salary allowances and other perquisites which are similar to those of a judge of the Supreme Court.
- If the CEC and other ECs differ in opinion on any matter, such matter shall be decided by according to the opinion of the majority
- The CEC or an EC holds office for a term of six years from the date on which he assumes his office or until he attains the age of 65 years before the expiry of six years term.
- Apart from other election commissioners CEC is provided with security of tenure he can be removed from his office only on the basis resolution passed in parliament with special majority in both the houses (Impeachment process).
- **Key points to remember**
 1. The constitution has not prescribed the qualifications (legal, educational, administrative or judicial) for the CEC or any other members of Election commission.
 2. The constitution has not debarred the retiring election commissioners from any further appointment by the government.

ECONOMIC AFFAIRS

GST Council Meet Highlights

In News: The GST Council, in its 25th meeting held recently, recommended many relief measures and clarifications on issues relating to GST.

Highlights

- **Simplification of return filing** - The Council made serious discussions on moving towards one return form but a final decision in this regard is pending.
- The plan seeks to do away with three forms — GSTR1, GSTR2 and GSTR3.
- It would be replaced with GSTR3B initially along with the uploading of a supply invoice.
- Accordingly, the monthly self-declaration on details of outward and inward supplies filed by a registered dealer will continue.
- The filing of a return would be annually or whatever frequency is decided upon.
- Taxes can be deposited on the basis of the invoice.
- However, if there is any mismatch between the buyer and seller invoices, an explanation can be sought.
- It will work as a deterrent against evasion that the invoices must match the return filings.
- **E-way bill** - With the trial run of the e-way bill system taking off recently, the government committed to the Feb 1 rollout across the country.
- With sole reliance on unilateral declarations and the resultant low GST collections, E-way bill is expected to be a significant anti-evasion measure.
- **Tax rates** - The Council cut rates on 83 employment-oriented goods and services.
- This was based on recommendations of the fitment committee.
- The new rate cuts are assessed to hit the exchequer by Rs 10-12 billion annually.
- **Composition Scheme** - The low proportion of collections under the scheme indicates poor response as well as large evasions.

- Most of the people who have registered have a declared income of less than Rs. 20 lakh a year, suspected under-declarations.
- To plug the loopholes, the Council is thinking of reverse-charge mechanism (RCM) under the composition scheme.
- Unlike the usual practice of sellers depositing the tax to the government, the buyer does so under the RCM.
- The reverse-charge levy on purchase from unregistered businesses could come back for composition dealers, in turn plugging possible tax leakage.
- **IGST** - The council took note of large amount of Integrated GST (IGST) credit lying unclaimed in the form of IGST collections.
- To ease the flow of funds for both the Centre and states, the Council decided to distribute IGST of Rs. 35,000 crore equally between the Centre and states.
- This will ease the indirect tax position of the centre and the states which is reportedly very weak.
- **Handicrafts** - The council approved a definition for handicrafts and the designation of 40 items as handicrafts.
- These would now be examined by the fitment committee.
- The council also rationalised the rates on 29 handicrafts items to zero percent.
- This will certainly increase the exports and competitiveness in international markets which in turn will boost the economy.
- This will have a minor impact on revenues, but is potential of boosting job growth.
- **GST revenue** - The figures on falling GST revenue so far are on voluntary compliance without any anti evasion measures.
- It was thus expressed that with the anti-evasion measures coming into place, the revenue will pick up.
- While GST collections have been coming down, the growth in direct tax collection which is ahead of target is encouraging.

Fitment Committee

- The rate fitment committee comprises of tax officials of the central and state governments.
- Its task is to evolve a principle and an appropriate methodology to determine rates for various supplies under GST.

Booming World Economy

Context:

- Almost all economies are growing worldwide for the first time since the 2008 financial crisis.
- But there are looming risks that needs to be addressed.

Trends in Major Zones

- **USA** - While Mr. Trump wants to strengthen the US economy is a positive, the recent tax reforms may distort the sensitive structure of world trade.
- If everything goes as US strategists hope, the US current account deficit (essentially the balance of imports and exports) could be halved.
- Also, US companies such as "Apple", which have long indulged in rigorous tax avoidance strategies, would have to pay taxes at home.
- **Germany** - This is Europe's main economy and has now seen strong growth for eight consecutive years and Unemployment is at a record low.
- The government is flush with cash due to swelling tax receipts and budget surpluses, and German exports continue to outstrip imports.
- But, for the past several years, the German government's savings drive and strictly balanced budgets has led to poor government spending.
- This has resulted in creaking infrastructure, ill-equipped schools and universities, and delays in expanding broadband networks among others.
- Furthermore, Germany faces an acute shortage of qualified staff in many industries despite the increase in foreign skilled workers.
- **Rest** - The entire of Euro-zone's formerly depressed economies such as Greece, Spain, Portugal and Ireland (except Italy) recorded significant growth.
- While except the war torn Middle East, all regions of the global economy have been growing in sync and economists project a 3.8% growth in 2018.
- While Brexit will cause some economic slowdown, the effect isn't expected to be a sustained drag on the growth engines.

India's Case

- China and India continue to lead the pack in Asia, and have the retained the tag of fast growing major economies.
- But India's growth is expected to slow down from the current level although it is still projected at a robust 6.5%.

- The Modi government has also eased regulations for foreign investors in an effort to attract capital and boost growth.
- The country has become an attractive destination for foreign investment, receiving more than \$60 billion in FDI, last year alone.
- Furthermore, India is set to overtake the United Kingdom and France to become the world's 5th largest economy next year.

Challenges

- Despite the overwhelming positives, the global economy still faces a raft of threats and uncertainties, which could derail growth.
- German exporters are worried about their American sales and industrialists have demanded tax reforms to compensate for backlashes from US policies.
- On the political front, Mr. Trump's irrational and intuitive actions has become a big cause of worry and uncertainty.
- Also, the Korean crisis seems to have no end and more trouble is also brewing in the Middle East, all of which can distort the global economy.
- It is essential to remember that every boom also carries within itself the germ of a crisis and needs cautious maneuvering.

Public Spending for Infrastructure

Context: There is a need to orient policies towards development of infrastructure to sustain a desired level of economic growth.

Current Demand

- The humongous tax reforms through GST and multiple initiatives with the intent of building a more productive and efficient economy have been ushered.
- In this backdrop, a focus on development of infrastructure and raising resources for financing the infrastructure is important.
- Estimates suggest that Rs 10-15 trillion of annual investment in infrastructure over the next 5 years will be needed to sustain desired growth.
- This expenditure must be judiciously divided between the public and private sectors, with the latter being brought into projects where returns are feasible.

Facilitation of Private Participation

- Suitable conditions should be created for private sector to invest and projects should be awarded only after securing key sovereign clearances.
- Large amounts of resources that are currently locked in arbitration need to be freed up by effective contracting and dispute resolution mechanisms.
- Implementing the Kelkar committee recommendations on revitalizing the public-private partnership model could be a good start.
- Public spending is indeed a key driver, but it is currently being channelized only to frontal sectors like roads, railways and waterways.
- Hence, it needs to be expanded to public housing and agro-infrastructure.
- A sound policy on asset recycling by identifying public assets for sale or 'leasing for operations' could help generate funds needed by the government.
- The TOT (Toll-Operate-Transfer) model for highways is a good example.

Land Security for Projects

- Availability and procurement of land remains a contentious issue and multiple planned and upcoming projects are locked in arbitration due to land.
- But significantly, many public entities such as the Railways, airports, defence services and port authorities hold underutilized land parcels in prime areas.
- Hence, the setting up of a Land Bank Corporation has been suggested as a definitive publicly available inventory of central government land holdings.
- A "Land Bank Corporation" will hence help in increasing the transparency with regard to monetization of such land parcels which will benefit all.

Electricity Sector

- While electricity is an important sector for a growing economy, it is currently facing stress and rising NPAs due to lack of demand for thermal power.
- Notably, there is stiff competition from renewable, which has become cheaper and the state discoms tend to focus exclusively on costs for sourcing power.
- While these are the prime reasons for rising NPAs in the sector, the discoms too are reeling under stress due to irrational subsidies.
- In this context, a "National Power Distribution Company" (NPDC) on the "one nation, one market" which will enable structured long-term strategising.
- Consequently, a minimum purchase from stranded capacities will be ensured, a unified power market will be created and source diversification in the generational sector can be ensured.

Railways

- There is an urgent need to upgrade and modernise railway infrastructure and increase the number of freight wagons, which at present is in severe shortage.
- A government policy for procuring new-generation freight wagons from the private sector could be a boon for the sector.
- In addition to freeing up resources for up-gradation and maintenance of railway infrastructure, it would also increase transport capacity and revenue.
- Additionally, this will boost manufacturing as a whole due to new technologies and new designs.

Draft Model Contract Farming Act, 2018

In News: The Ministry of Agriculture recently released a draft Model Contract Farming Act, 2018.

Contract Farming

- Under this, agricultural production (including livestock and poultry) can be carried out based on a pre-harvest agreement.
- The contract would be between buyers (such as food processing units and exporters), and producers (farmers or farmer organisations).
- Accordingly, the producer can sell the agricultural produce at a specific price in the future to the buyer as per the agreement.
- It reduces the risks of fluctuating market price and demand for the producer and non-availability of quality produce for the buyer.

Existing Regulatory Structure

- **Provisions** - Currently, contract farming requires registration with the Agricultural Produce Marketing Committee (APMC) in few states.
- Consequently, the APMCs can also resolve disputes arising out of these contracts.
- Further, market fees and levies are paid to the APMC to undertake contract farming.
- **Concerns** - The market fees and other levies are paid to the APMC when no services such as market facilities and infrastructure are rendered by them.
- There are other concerns relating to stockholding limits and poor publicity of the benefits among the farmers.
- **Model APMC Act** - The Model APMC Act, 2003 provided for contract farming.
- This was meant for the states, to use as reference while enacting their respective laws.
- 20 states have amended their APMC Acts; however, the procedures for registration and recording of agreements vary across states.
- Also, only 14 states have actually notified rules related to contract farming, as of October 2016.

Present Act

- The draft Model Act seeks to create a regulatory and policy framework exclusively for contract farming.
- Based on this, the states can enact their own laws, as contracts fall under the Concurrent List.
- **Authority** - The Act seeks to bring contract farming outside the ambit of the state APMCs.
- Accordingly, buyers need not pay market fee and commission charges to APMCs.
- It provides for a state-level **Contract Farming (Promotion and Facilitation) Authority** to ensure implementation.
- Functions of the Authority include:
 - levying and collecting facilitation fees
 - disposing appeals related to disputes under the draft Model Act
 - publicising contract farming
- Further, the sale and purchase is out of the ambit of regulation of the respective state/UT Agricultural Marketing Act.
- **Support** - As per the Act, the producer can get support from the buyer for improving production through inputs.
- It may include that on technology, pre-harvest and post-harvest infrastructure, etc as per the agreement.
- However, the rights or title ownership of the producer's land cannot be transferred to the buyer.
- Also, the buyer cannot raise a permanent structure on the producer's land.
- **Registration** - Registering and Agreement Recording Committee will be set up at the district, taluka or block levels.
- It will consist of officials from departments such as agriculture, animal husbandry, marketing, and rural development.
- The Act specifies that every agreement should be registered with this Committee.
- **Disputes** - The draft Model Act offers ways for resolving any dispute arising between a producer and a buyer.
- They are:
 - negotiation or conciliation for a mutually acceptable solution
 - referring the dispute to a dispute settlement officer designated by the state government

- appealing to the Contract Farming (Promotion and Facilitation) Authority if not satisfied by the decision of the dispute settlement officer
- **Stockholdings limits** - The existing provisions of stockholding limits on contracted produce discourage buyers to enter into contracts.
- Under the draft Model Act, stockholding limits will not be applicable on produce purchased under contract farming.

Way Forward

- Given the states' lethargic response for the model APMC Act, the implementation of the model law on contract farming, even if passed by the states, is uncertain.
- It allows companies to enforce price cuts or reject the produce on the plea of inferior quality.
- But the quality parameters stipulated by the companies are often hard to meet.
- The restrictive provisions in the model act thus need a reassessment for balancing the interests of farmers and businesses.

Towards a Payroll Reporting in India' Report

Context:

- A report titled "Towards a Payroll Reporting in India" was released recently, to have a better payroll reporting system in India.
- The overt claims made by the study on the country's job creation scenario call for a relook.

About Report

- The study was authored by SBI group Chief Economic Advisor and a professor with the Indian Institute of Management, Bangalore.
- It calculated the number of jobs in enterprises from the membership of:
 - Employees' Provident Fund Organisation (EPFO)
 - Employees' State Insurance Corporation
 - General Provident Fund
 - National Pension System (NPS)
- This is notably the first study to estimate job creation using these kinds of data sets.

Key Findings

- **Job Creation** - As per EPFO data, 55 lakh new jobs would be created in 2017-18.
- It has found that around 600,000 jobs were being created a month in formal sector in FY18.
- The study found that there were around 90 million employed people in the formal sector as of March 2017.
- The top 10 sectors of the economy contribute about 75% of total employment in the formal sector in India.
- **Labour Force** - The study estimated that around 15 million are added to the labour force every year.
- It says by 2040 or so, it is expected that India's demographic dividend will be conclusively over.
- Evidently, the total fertility rate is already down to 2.2 children for every woman and expected to reach the replacement fertility rate of 2.1 by 2025. (Refer Quick Fact below for explanation)

Suggestions Made

- The study suggests the government to undertake a trend analysis of EPFO data across 190 industries and across geographies.
- This is to reorient the country's skill development programmes towards such industries.
- Also, a detailed analysis of labour on contract under the contract labour Act should be done to estimate the total number of people on contract.
- The other suggestions include:
 - Mandating professional bodies, hospitals, nursing homes, etc to submit details of new joiners every 3 months to the local government offices
 - Making every GST filer to provide total number of permanent employees and total number of contract employees
 - Giving some tax deduction (per person) for domestic help, if the employing households register the details with tax authorities
 - Continuing with NPS subscriber extra tax deductions and providing new incentives to encourage people to join NPS

Flaws in the Study

- **EPFO data** - The study took into account the 18-25-year-old who registered with the EPFO to arrive at the 55 lakh new jobs number.
 - This however does not automatically mean net new jobs.
 - Also, EPFO only registers employees from the formal sector for provident fund benefits.
 - Moreover, EPFO does not make deletions if a person loses his/her job and only makes additions on new registrations.
 - This highlights that the EPFO data reflects the gross jobs picture and not the supposed to be net new jobs in the economy.

- **DeMo/GST** - The Indian economy underwent large-scale formalisation forced by the twin forces of demonetisation and GST.
- The fund crunch due to demonetisation and tax credits claimable only by registered business entities under GST were the reasons.
- It coerced many small and medium businesses to transition at least a part of their workforce from informal to formal employment.
- This formalisation led to a massive drive in EPFO registrations.
- However, it is to be noted that an informal job that turns formal with an EPFO registration does not mean it is a new job.
- The costs of formalisation may have resulted in many firms cutting costs or even shutting down, actually leading to some job loss.
- However, the EPFO-based study fails to capture these costs of forced formalisation and projects only the new formal employees.
- In all, the selective projections of 'EPFO' data for the selective period of 'FY-2017 and FY-2018', bearing many effects of the structural changes in the economy, seem to be misleading.
- India's jobs situation is a grim challenge that must be acknowledged by understanding the true picture, for formulating appropriate policies.

Fertility Rate and Demographic dividend

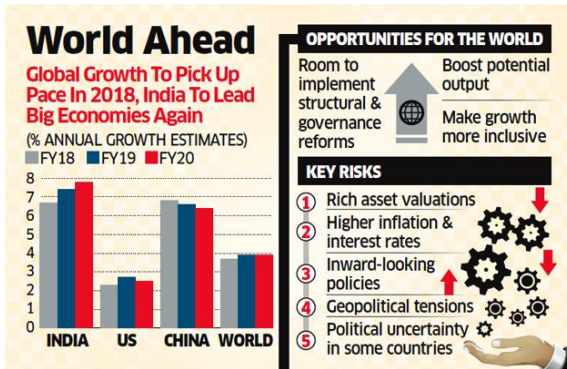
- FR is the average number of children per woman if she lives to the end of her child-bearing years.
- The replacement fertility rate is the birth rate at which the population level remains constant, taking into account the mortality rate and other factors.
- With fewer births each year, a country's young dependent population grows smaller in relation to working-age population.
- This offers opportunities for rapid economic growth with more earning people and fewer dependent people to support for.
- However, a fall in fertility below replacement levels signals moving towards the closure of demographic dividend phase.
- In India, for other 25-plus years falling death rates will compensate for falling birth rates.
- However, as per the study, by 2040 or so, it is expected that India's demographic dividend will be conclusively over.

IMF Growth Forecast

In News: IMF has released the latest update of the World Economic Outlook ahead of the World Economic Forum.

Highlights

- **India** - India is projected to grow at 7.4% in FY19 as against 6.7% this year.
- This is projected to gain pace to grow at 7.8% in FY20.
- India has slipped behind China this year in tax collections owing to disruption caused by demonetization and GST.
- The forecast will help India regain the tag of fastest-growing major economy, backing the government's economic revival theme.
- Notably, stock markets have been surging recently, hitting successive records.
- This is encouraged by the economic revival prospects and corporate earnings optimism, apart from other factors.
- **Other countries** - In the current year, China will grow 6.8%, just ahead of India but will slip to 6.6% next year.
- The US is forecast to grow 2.7% and 2.5% in 2018 and 2019, respectively, slightly higher than earlier estimates.
- **Global** - The IMF noted that 2017 saw the best global growth in seven years.
- The global economy is expected to grow 3.9% this year, faster than 3.7% forecast earlier in October.
- The revision in global growth forecasts reflects increased global growth momentum and positive impact of US tax policy changes.
- Shared priorities across all economies include implementing structural reforms to boost potential output and making growth more inclusive.



Rising Inequality

Context:

- Indian Prime Minister leads the “largest ever” Indian contingent to the World Economic Forum 2018 in Swiss Alps town of Davos.
- With 'rising global inequality' being an important agenda in the meet, it is imperative to reflect on the inequality scenario in India.

How (in) Equal is India?

- Credit Suisse Global Wealth data for India in 2017 highlights that 73% of the increase in wealth in India went to the top 1%.
- India now has around 100 billionaires, the number having gone up from nine in 2000.
- Notably, 37% of India's billionaires have inherited wealth.
- There are only 4 women billionaires and 3 of them inherited family wealth.
- India is currently shining for its top 1% and arguably also for its top 10%.
- It needs to spread this to the middle 40% and most of all to its bottom 50%.
- Notably, these bottom proportions comprise largely of the Dalits, Muslims, tribals, and women, making it a social inequality as well.

How Serious is Inequality

- Global inequality is rising to unprecedented levels, at rates not seen during the last 100 years.
- It is worrying because it makes economic growth unsustainable, corrodes politics and undermines democracy.
- It is also leading to a breakdown of the social contract, as people end up in violence, crime and corruption as ways to get rich.
- In this context, this year's agenda for WEF includes “sustainable and inclusive economic development”.
- Indian Prime Minister's keynote address at the forum is on “Creating a Shared Future in A Fractured World”.
- To make it meaningful, India should devise means for sharing the wealth of its top 1% with its underprivileged bottom sections.

Government's Role

- Jobs** - The government should formulate measures to promote inclusive growth.
- It must be ensured that the income of the bottom 40% grow faster than that of the top 10%, to narrow the current income gap.
- Some of the ways for achieving this include:
 - promoting labour-intensive sectors to create more jobs
 - increasing investment in agriculture
 - implementing fully the social protection schemes
- Tax** - Government must take stringent measures against tax evasion and avoidance.
- The super-rich could be taxed by re-introducing inheritance tax and increasing the wealth tax.
- Corporate tax breaks could be reduced and eventually done away with.
- Data** - Lack of availability data has allowed inequality to creep up to such high levels in India, going unnoticed by the policymakers.
- It thus calls for the government to collect and make available, regular and high quality data on income and wealth.

The Redundancy of “Minimum Export Price”

Context:

- The Commerce Ministry is working on a policy for promoting export of agriculture commodities.
- It looks keen to do away with restrictions such as “Minimum Export Price (MEP)” for most of the export goods, except certain sensitive items.

MEP Work

- MEP involves “fixing a floor price” below which an exporter shall not sell the product to an overseas customer.
- Usually imposed on commodities such as “onion and basmati rice”, it hopes to restrict export volumes, curtail domestic prices and enhance forex earnings.
- While the government stipulates a MEP from time to time, in market parlance it is largely seen as an outdated concept as it gets easily circumvented.
- The system is duped easily by invoicing at or above MEP for the record but actually pricing and selling the good at prevailing market price.
- Depending on the pre-agreed arrangements, the price differential is later adjusted through future transactions or quality claims.
- With exporters having mastered this route, MEP has become an ineffective instrument to restrict commodity export or contain domestic price rise.

Alternative

- Rather than MEP, imposing an export duty could be an effective alternative, which will augment exchequer revenue and eliminate circumvention.
- But it is the Finance Ministry, and not the Commerce Ministry, that will take the decision to impose or vary the rate of duty.
- For such action, the Finance Ministry will have to consider all sensitivities relating to export of essential and politically touchy commodities like onion.
- Also, it has to closely track market developments so as to be proactive in making critical decisions.

Larger Picture

- For promoting export of agro-commodities, the country should produce ‘genuine export surplus’.
- Barring a limited number of commodities such as basmati rice and cotton, there are not many commodities that are in real surplus here.
- Hence, Agro export from India has often primarily been a play on currency, where a weaker rupee helps boost exports.
- Hence, the Commerce Ministry’s new agro-export push should not be a standalone policy that merely tinkers with certain procedural aspects.
- Rather, it must be all encompassing and provide holistic solutions from farm to ship to enjoy sustained success.

International Call Termination Charges

Context:

- Telecom Regulatory Authority of India (TRAI) has decided to slash International Termination Charge (ITC) by 43%.
- This move has serious implication for the telecom sector revenues and other macro-economic calculations of the government.

“Call Termination Charge”

- Termination rates are the charges the call receiver’s telecom operator charges the dialler’s telecom operator for letting the call go through.
- This cost becomes the operating cost for the dialler’s network and is charged from the dialler as part of the call rates.
- Most telecom jurisdictions have regulated this rate by law and India’s TRAI too has done the same.
- Currently, the domestic call termination charges is 6 paise/min and the international rates is 53 paise/min.
- As per the recent TRAI directive, the international rates will become 30 paise/min from Feb 2018.
- Notably, domestic rates were cut last year by more than half, which was seen as a move that advantaged new comers over established incumbents.

TRAI’s Logic Flawed

- **Security Aspect** - TRAI’s has stated that this cut is to eliminate grey market calls that pose a national security threat.
- But this argument is weak as the rate cut comes at a time when voice calls are increasingly being made via internet based applications.
- As these apps also come embedded with similar “security” threats, merely cutting rates for calls might not address the security issue.
- **Rate Contradiction** – Cheaper international incoming calls are indeed consumer-friendly, which is the focus of TRAI’s mandate.
- But India’s current rate of 53 paise/min already fares favourably with Rs 1.01 of US, Rs 15.44 for Oman and Rs 8.36 for the UAE.
- Notably, the low ITC in India has resulted in a skewed pattern of call traffic, with incoming to outgoing calls in the ratio of about 20:1.
- Given this, there is little reason to suppose that incoming traffic is likely to surge as a result of this cut or that consumers will enjoy increased ease.

Macro Impact

- The telecom sector is stressed with an accumulated debt of Rs.4.7 trillion, which is partly due to the reckless competition from the deep pocketed “Jio”.
- Hence, Telcos have expectedly protested strongly against ITC reduction as it might affect their revenues drastically.
- As the estimated loss is around Rs.20 billion for this year, it will be a significant portion of the industry’s annual earnings of around Rs 2.4 trillion.
- From the government’s perspective, this cut is likely to impinge on revenues - in terms of the GST, licence fees and foreign exchange earnings.
- Significantly, the government is currently struggling to curtail the burgeoning fiscal deficit, for which limits have been breached within 8 months.
- All these factors call for a serious rethink and TRAI would do good to revoke the rate cut.

INTERNATIONAL AFFAIRS

Only 5 years for Sirisena

Context:The Sri Lankan Supreme Court has categorically ruled that the incumbent president can’t stay beyond the present constitutional mandate of 5 years.

What lead to the pronouncement?

- Mr. Maithripala Sirisena won the Srilankan presidential elections in 2015.
- At that time, the rules stipulated a 6 year executive presidency, but the constitution was amended subsequently.
- The amendment reduced the reduced the presidential term to 5 years and also tilted the power balance in favour of a parliamentary setup from presidential.
- Despite immediate effect being given to all new provisions, Mr. Sirisena sought clarification from the SC on continuing the current term for 6 years.
- Hence, the SC clarified that the current term too can only be for 5 years.

Implementation

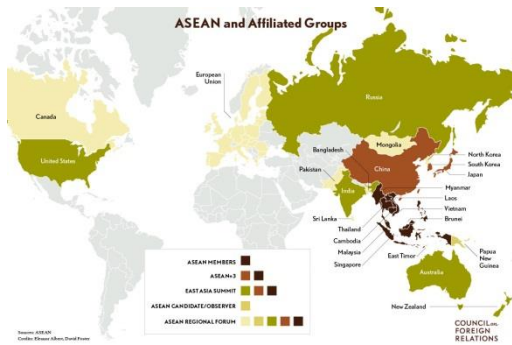
- The current unity government that Mr. Sirisena is jointly heading with PM Ranil that had passed the amendments and explicitly made them applicable to the incumbents too.
- Also, as Mr. Sirisena has been frequently asserting that he had voluntarily shortened his tenure, the current filing in the SC seems out of place.
- This action is in line with the previous Lankan Presidents “Rajapaksha&Kumarathunga”, who too used various tactics for extending their tenures.
- Hence, while supporters vouch that Mr. Sirisena was merely exercising his right of seeking SC clarification, there is a clear political angle involved.
- If Sirisena secures the additional year in offices, he will remain president during the next parliamentary elections.
- This will give him more head room for consolidating his position within his faction ridden SLFP and with his coalition partner Ranil’s UNP.
- Notably, the previous president Mahinda Rajapaksha is also a member of SLFP but is currently heading the joint opposition in the parliament.

India-ASEAN Relations

In News:India will host the mega India-ASEAN commemorative summit shortly, marking 25 years of bilateral relations.

Evolution Partnership

- Ever since the launch of the Look East Policy in 1991, the bilateral relations have travelled a long distance.
- The two sides established a Sectoral Dialogue Partnership in 1992.
- This was elevated to a full-fledged dialogue partnership in 1996, and India also became a member of ASEAN Regional Forum.
- The bilateral tie up was further taken to a strategic partnership level in 2012.
- Currently, ASEAN and India have about 30 platforms for engagement, including an annual leaders’ summit and ministerial dialogues.
- The India-ASEAN bonhomie has broadened at political, strategic, security and defence level ties, in addition to the economic realm.
- ASEAN is now clearly the central pillar of India’s Act East Policy.



Economic Integration

- Despite multifrontal engagements, the prime focus continues to be the furtherance of economic and commercial ties.
- Evidently, ASEAN is India's 4th largest trading partner, and India is the 7th largest trading partner of the bloc.
- The economic integration process further strengthened after the creation of the ASEAN-India free trade area in 2010.
- This was followed by the implementation of the India-ASEAN agreement on services and investment in 2015.
- Given all these, the **bilateral trade and investment ties are still way below the true potential**.
- Besides, the balance of trade has always been in favor of ASEAN member countries.
- The Indian FDI into ASEAN nations accounts for 22% of its total outbound FDI; far less in comparison to the US, the EU and Japan.
- Also, the investment share is skewed, with 99% of the total FDI inflows from the region coming from Singapore alone.
- This is because of the Comprehensive Economic Cooperation Agreement with Singapore.
- The other major Southeast Asian economies including Malaysia, Indonesia, and Thailand account for less than 1%.

Roadblocks

- SMEs are a vital aspect of both Indian as well as the ASEAN economy, contributing nearly 45% to the Indian manufacturing.
- However, a range of factors hamper FDI inflows and SMEs collaboration between India and ASEAN countries.
- Some of them include:
 - challenges in establishing a supply chain
 - poor infrastructure
 - bad maritime and air connectivity
 - bureaucratic costs involved in complex tax and duty structures
 - licensing, and other business activities
- **Complexity** - All the countries of the region have differing levels of socio-economic development, posing a challenge.
- The Indian SMEs have to adjust with a new set of supply-chain strategies to each country's varying regulatory requirements.
- **Technology** - The SME sector in India is hugely dependent on foreign technologies because of lack of in-house R&D.
- **China** - The CLVT countries (Cambodia, Laos, Vietnam and Thailand) are emerging as manufacturing hotspots for China.
- China is increasingly outsourcing its production to countries along the Belt and Road project, mainly ASEAN members.
- Given the low levels of manufacturing, these countries stand to gain from industrial capacity cooperation with China.
- The dominant Chinese footprint in the region makes the competition even tougher for Indian SMEs.

India's Focus

- **Technological upgrading** is pivotal to enabling the SMEs to be more competitive in the global market.
- India's **logistics sector and the supply-chain environment** should be developed to a world-class level.
- The ongoing projects and arrangements for infrastructure development and connectivity should be carried on without delays.
- They include:
 - India-Myanmar-Thailand Trilateral Highway
 - Bangladesh, Bhutan, India and Nepal (BBIN) Motor Vehicles Agreement, 2016
 - Kaladan Multimodal Transit Transport Project (linking the Kolkata with Myanmar's Sittwe port)

- LDCs of ASEAN bloc, like Laos, Vietnam, Cambodia and Myanmar, are the beneficiaries of generalized system of preferences in US and EU.
- Indian manufacturers setting up business units here are bound to get the benefits while exporting to the US and EU markets.
- India must use the upcoming commemorative summit to project it as a lucrative investment destination for the ASEAN countries.

New Geo-Political Realities in South Asia

Context:

- Mr. Trump's open criticism of Pakistan is indicative of clear signs of U.S. recalibrating its ties with its long term ally.
- While India sees these developments positively, there is a need for a calibrated caution as implications there are far reaching.

Context

- Islamabad has this far been a non-NATO U.S. ally and is also a traditional friend of China in the region.
- But the U.S. is clearly losing out on the gains it intended to make in Afghanistan and is also ceding space to an aggressive China in the region.
- In this backdrop, U.S. is pushing for a seemingly radical shift in its Pakistan policy, which is bound to have significant fallout for the entire South Asia.
- While some vouch that this assertion would give U.S. more leverage in the region, others argue call it an empty threat that will be eventually soft pedaled.

Pakistan Reaction

- The US has called for tightening the noose around the Haqqani Network and Taliban, but such action has serious internal political challenges in Pakistan.
- Notably, general elections are scheduled for next year in Pakistan, and caving into U.S. demands would have grave implications for the civilian government.
- Hence, the Pakistani government is now voicing angst against US and has even threatened to suspend military and intelligence cooperation with Washington.
- Significantly, American aid and reimbursements for Pakistan have been declining over the past several years, which have already diluted U.S.'s clout.
- While Pakistan has been already been moving steadily towards China from the American camp, the current events are expected to speeding this.

Larger Implications

- Some perceive these as early indications of for a new brewing cold war which will see the emergence of an anti-U.S "China-Pakistan-Russia axis".
- While India will certainly be tempted towards the U.S. fold, the role of Iran, which is hostile to the US but has cordial ties with India will be interesting.
- Also, India's presently increasing pro-US tilt is speculated as the beginning of the end for the special Indo-Russian ties of more than 5 decades.
- The U.S. pole is likely to have India and most NATO allies on board.
- But the rise of China and current pace of US withdrawal might push many countries to hedge their bets safely.
- While the only U.S. ally that has immense influence in Pakistan is Saudi Arabia, it remains to be seen on how effective it will be put to use.

Implications for India

- Trump's anti-pak rhetoric inherently runs the risk of even derailing India's present indirect influence in Pakistan through U.S. in terror related aspects.
- Also, the strengthening of China-Pakistan ties, without the balancing effect of the U.S. in the region, could push India further to the wall.
- Hence, the best bet for India would be to deal with Washington without closing its doors to Moscow or Beijing, which requires great diplomatic acumen.
- Such a crucial choice would also need to factor in economic relations, defense partnerships, and most of all geographic realities.
- Importantly, it needs to be realized that a sharper geopolitical competition in the region could adversely impact the overall stability in the region.
- Consequently, infrastructure development, market access, regional organizations, and regional conflict resolution mechanisms would suffer.

Israel - India Bilateral

In News: Israeli PM Benjamin Netanyahu's concluded his visit recently.

- This marks the full normalization of bilateral ties between India and Israel.

Historical Ties

- After much reluctance due to the internal and external pressure, India officially recognized Israel only in 1950 (3 years after its creation).
- From 1950 to the early 1990s, the relationship remained informal in nature, with no scope for collaboration and engagement.
- Also, India's Non-Aligned Foreign policy outlook proved to be a major impediment as the NAM took a consistent pro-Palestine stand.
- Official diplomatic ties were established only in 1992, and a decade later, in 2003 India hosted Israeli PM "Ariel Sharon" in a first of its kind bilateral.
- Lately, President Pranab Mukherjee visited Israel in 2015, which was followed by PM Modi's visit in 2017 and current 6 day visit of Mr. Netanyahu.

Contours of the Visit

- The joint statement made to the press drew on a futuristic 25-year timeline to realise the full potential of Indo-Israel strategic partnership.
- Mr. Netanyahu visited the TajMahal, and Chabad House, which was one of the sites of the 26/11 terror attacks where many Israeli citizens were killed.
- On business, it was noted that "size and scale" of India and the "sharpness and edge" of Israel has immense potential for collaboration in industry.
- Also, the joint statement reaffirmed commitment for early resumption of peace talks between Israelis and Palestinians.
- This is indicative of India's preparedness to have more open and honest conversations on the peace process.

Future Look

- Mr. Modi is expected to visit Palestine shortly.
- Also, Jordan's King Abdullah II, who is recognised in the Arab world as the official custodian of the holy sites in Jerusalem is scheduled to visit Delhi soon.
- India's willingness to further the peace process should also be seen in the backdrop of its recent vote against Israel in the Jerusalem resolution.
- Importantly, any real success in this domain will require challenging the Israeli political belief in hard power and its "survival of the fittest" philosophy.
- While Mr. Netanyahu openly asserted in Delhi that one makes peace and aligns with the strong, India needs to show that building friendships beyond mere strategic calculation is vital.

Fiscal Shutdown in U.S.

Context:

- Democrats have successfully obstructed the "spending Bill" in the US senate.
- This was done to force the Trump administration to protect undocumented child immigration from deportation.

Status of the Current Spending Bill

- USA's "Spending Bill" is an agglomerated "Appropriation Bill" for drawing money for various budgetary allocations.
- Unlike in parliamentary democracies, the failure of an Appropriation Bill doesn't lead to the fall of the government in presidential systems such as US.
- To become a law, any bill in the US will have to pass through both houses of the Congress namely - "Senate" and the "House of Representatives" and then get the assent of the president.
- While the current Spending Bill sailed through the Congress with a 230-197 vote, it was blocked in the senate due to Democrat Senators.
- Notably, congress has been struggling since October to pass this spending Bill, which is being held hostage due to the child immigration issue.

Working of U.S. Senate

- The US senate has 100 seats and any bill needs a majority (which is 50% + 1) of the total votes casted to get passed.
- The "Republican Party" (Trump's party) currently holds 51 seats in the senate, while the "Democrat Party" holds 47 and 2 is held by independents.
- But unlike in India, there is no anti-defection law in the US and also as long as senators are engaged in debates, the bill can't be put to vote.
- Since Senate has only a limited number of working days, many a times some senators have resorted to obstructionist debates to block bills.
- This practice of blocking bills is called "filibustery" and to break this jinx a guillotine motion was commissioned.
- To guillotine a debate, a three-fifth majority of those present and voting is needed, which accounts to 60 if the house votes in full attendance.
- If guillotine doesn't succeed, then a bill eventually lapses with the Senate session, which is what happened to the current spending bill.

Implications

- The government was till recently being funded by temporary arrangements since the new fiscal year began in October.
- The current stalemate means that the government will now face a complete shutdown due to lack of funds, which has happened only thrice since 1995.
- This means most “non-essential” federal workers will be put on leave, and only those dealing with public safety and national security, would continue work.
- Nearly 1 million people would not receive regular pay checks, and businesses involved with the government would also stand to lose revenue.
- Also, due to reduced taxes, the exchequer stands to lose \$6.5bn a week, and also potentially devastating ramifications for the national economy looms.
- Despite this pressing situation, Mr. Trump seems to be continuing his aggressive posture against the Democrats on the immigration issue.

Liberalizing U.S. Arms Sales

Context:

- Trump is attempting to rework the commercial-strategic equation of the US.
- This presents an opportunity for India to capitalize.

Current Scenario

- Arms transfers by the U.S. happen primarily through “Foreign Military Sales (FMS), Direct Commercial Sales (DCS), & Foreign Military Financing (FMF)”.
- The three domain headers aggregate “\$40, \$110 and \$6 billion” respectively.
- While FMS is a government to government sale, DCS is directly negotiated by the seller and the foreign buyer.
- The 3rd domain “FMF” is done through American grants to allies, of which more than 50% goes to Israel.
- Egypt, Jordan and Pakistan have been other significant FMF recipients in recent years, followed by 50 other countries that receive smaller amounts.
- All these segments are controlled by stringent laws, the most important of them being the Arms Export Control Act.

Significant Aspects in the Sector

- Arms supplies to foreign countries are critical to the U.S. for three main reasons:
 1. To leverage of a global influence
 2. To reduces the cost of procurement for the U.S. military due to economics of scale
 3. Due its significance in to the economy as the U.S. defense manufacturing sector is an employer of 1.7 million people
- But the sale of weaponry, traditionally, is guided less by commercial considerations and more by strategic calculations.
- The “Bureau of Political-Military Affairs, Department of Defense, the White House and the Congress”, are all involved in vetting process for arms deals.
- Each proposed sale is considered on a case-by-case basis and approved “only if found to further U.S. foreign policy and national security interests”.
- The actual process of a sale could be long-winded, and could take months even after it is approved in principle.
- The aspects that go into the assessment of the deals are the capability of the buyer government to afford, operate and protect the technology sought.
- Notably, protections are also ingrained to ensure that systems sold to one country do not end up with a third party.

Trump’s View Radically Different

- While arms sales and supply has been a major arena for displaying U.S. strategic prowess, Trump sees arms purely through the commercial angle.
- His push in favor of liberalizing U.S. arms sales to undermines any humanist consideration or visionary strategic thinking.
- He has been an aggressive salesman for American defense manufacturers during his bilateral engagements with foreign leaders.
- More significantly, he has been vocal in his disapproval of this established defense trade norms in the US as he considers them a big failure.
- He rather wants to reduce the aids through FMF component (except to Israel), and seeks that American partners buy more weapons from it.
- This is also seen as a move towards stifling US’s NATO contributions and also reducing trade deficits with key partners such as South Korea and Japan.
- While the US state machinery might not easily accede to most of these aspects, Trump’s voice is bound to resonate considerably in any U.S. arms policy.

India’s Role

- India is one of the largest defense buyers and has imported over \$15 billion worth of defense equipment over the last decade from the U.S. alone.
- As many Indian arms bids have get entangled in the U.S. bureaucracy for multiple reasons in the past, Mr. Trump's approach might ease these issues.
- Trump's business centric approach is also a positive as it tends to address India's skepticism to get entangled in operational military partnerships.
- Also, while India's robust defense partnership with Russia was a major irritant for US's strategic viewpoint, a commercialist approach overlook this.
- Hence, India could emerge as a reliable, big arms market for the US, which would also help in reducing the overall trade deficit that US has with India.

Indo-EU Ties: A Shared Future

Context:

- 2018 has started with a growth uptick in the Euro-zone and the lowest unemployment rates for the decade.
- This is a positive for India as EU has been a major business and trading partner to India for long.

Significance of 2018

- The Franco-German motor has been instrumental in accelerating the EU forward since the times of the Elysée Treaty of 1963 (friendship treaty).
- Currently, there is considerable optimism as both with Ms. Merkel in Germany and Mr. Macron in France, have strong pro-EU views.
- They've have expressed renewed ambitions for Europe to adapt it to today's challenges in a rapidly-evolving world like "climate change and terrorism".
- Much has been done over the last few years to consolidate the Euro-zone, protect our borders, fight against terrorism and build European defenses.

Indo-EU Bonhomie

- While there are multiple global challenges shared across the world, India and Europe share a lot more basic principles and values in common.
- **Shared Ideals** - Both believe in multilateralism, cooperation and a rules-based international order rather than the unilateral use of force and coercion.
- Both believe democracy, human rights and the rule of law to be the best means to secure freedom and prosperity for our peoples.
- This lays the ground for a natural partnership and thereby the Indo-EU relationship is as old as the EU itself.
- **Current Partnerships** - Today, the EU is India's largest trading partner and investor, and will remain so even after Brexit.
- European companies are actively involved in India in creating jobs, sharing technical know-how, and promoting research and innovation here.
- Reciprocally, highly-qualified Indian workers have been contributing to the European economy for decades.
- Notably, Indian investment flows towards Europe is also strong and EU remains open to Indian talent and enterprise even during disruptive times.
- Together, we are formulating innovative solutions for the 21st century in the fields of smart cities, renewable energy and clean transportation.
- **Strategic Significance** - While there is lesser visibility for this, there is a very important growing EU-India security partnership.
- For France and Germany, India has been a trusted security partner for many years, which is steadily building into a greater partnership with EU as a whole.
- Regular exchanges of views are already taking place between Indian and European officials on a large number of foreign policy and security issues.
- This further build into a concrete cooperation in areas such as counter-terrorism, and cyber-security.

Turkey's Anti-Kurdish Offensive

Context:

- With the conflict with the Islamic State (IS) almost concluded, Turkey has made a decisive move against Kurdish fighters on the border with Syria.
- As most international players have been pulling out of Syria, the Syrian Kurds will have only themselves to fed for this time.

Kurds

- Kurds are an ethnic-linguistic group that inhabit the middle-east and are spread across the border regions of four countries.

- Their demands have varied from wanting a separate country for themselves to demanding greater autonomy within the framework of the existing states.



- During the conflict with the IS in Iraq and Syria in the past three years, the military wing of the Syrian Kurds (SDF) was supported by the USA.
- In 2017, Iraqi Kurds attempted to declare independence, but were curtailed by Iraqi army's intervention into the Kurdish autonomous region.
- Currently, Syrian Kurds seem to be on a similar pursuit along the Syria-Turkey border, which has got Turkey worried.

Operations Against IS

- The "Syrian Democratic Force (SDF)" was created in 2015 by the various Syrian Kurdish political forces.
- **U.S. Alliance** - Various strategic considerations saw the U.S. coordinating with SDF to secure ground support for its operations against IS in north Syria.
- SDF with air support from the U.S., routed the IS from Raqqa in October 2017.
- Subsequently, the Kurdish leadership asked Raqqa's people to join the Kurdish-run state of "Democratic Federation of Northern Syria (Rojava)".
- Notably, "Rojava" means "Western Kurdistan" and was perceived as a symbolic assertion of the future Kurdish ambitions of a greater Kurdish state.
- **Turkey's Concern** - In order to confront the IS, SDF allied with other minority groups like Assyrians and the region's major Sunni tribe Shammar.
- But as the Kurdish militia "People's Protection Units (YPG)" was the dominant entity in SDF, Turkey primarily saw it as a Kurdish resurrection movement.
- Hence, Turkey had ideologically opposed it from the start and had for long been threatening to enter Syria with an armed offensive against SDF.
- But despite the grumbling, the U.S. pressure and the primacy of finishing the IS had effectively deterred action.

Current Operation

- Recently, with the IS wiped out, Turkish President Erdogan announced the start of Turkish armed operations against the Kurds across the Syria border.
- This will bring SDP in directly in war with Turkey, which is a mere extension of the already ongoing war against the Kurds within Turkey's southern provinces.
- Notably, Turkey is vehemently opposed to any form of ethnic Kurdish assertion, and has even declared "Kurdish Workers' Party (PKK)" as terrorists.
- Within Turkey, most Kurdish towns are under eternal curfew and almost all Kurdish political parties are effectively banned.

International Reactions

- With the threat of IS no more, international interests seems to be vanishing in the region and regional powers are becoming assertive again.
- Indications are also clear that Mr. Erdogan had sought assurances from all the major players in northern Syria before he sent in his troops.
- The U.S. seems to have cut off links with its Syrian Kurdish allies and has stated its intentions of not wanting to stay in northern Syria for long.
- The Russians too seemed to have withdrawn as the Russian backed "Syrian Arab Army", gave assurances that it would not contest the Turkish invasion.
- Hence, as Turkey invades into Kurd controlled Syria, the SDP and the Syrian Kurds have only themselves to fend for.

Battle Unfolding

- Turkish tanks have moved swiftly through Afrin's Shera and Sherawa districts, with YPG and YPJ fighters trying their best to hold off the ground assault.
- Turkey's domination of air is giving its ground forces a decisive advantage and with continued bombing of SDF positions, the Kurds don't stand a chance.
- Significantly, at this juncture, there is nobody who will be willing to go to the United Nations to ask Turkey to call off its war.

ENVIRONMENTAL AFFAIRS

Environmental Performance Index (EPI)

In News: India has been ranked 177 among 180 countries in the Environment Performance Index (EPI) – 2018.

- This index has been developed by Ya University and Columbia University in collaboration with the World Econom Forum and the Joint Research Centre of the European Commission.
- The report has been released on 23 January, 2018 on the sidelines of World Economic Forum meet in Davos.
- EPI Top 5 countries are Switzerland, France, Denmark, Malta and Sweden.
- Bottom countries are Nepal, India, Congo, Bangladesh, Burundi

About the Index

- Environmental Performance Index (EPI) is calculated on the basis of data gathered from 24 individual metrics of environmental performance.
- These 24 individual metrics are then aggregated into a hierarchy that begins with 10 major environmental issues categories.
 1. Air Quality (household solid fuels and PM2.5 exposure)
 2. Water & Sanitation
 3. Heavy Metals (lead exposure)
 4. Biodiversity & Habitat
 5. Forests (tree cover loss)
 6. Fisheries
 7. Climate & Energy (CO₂, Methane and Black Carbon Emissions)
 8. Air Pollution (SO₂ and NO_x emission.
 9. Water resources (wastewater treatment) Agriculture (sustainable practice)
- The above 10 environmental issue categories are then divided into two police objectives viz. **Environment health and Ecosystem Vitality.**
- The overall EPI based on a country's performance in these 10 issue categories and two policy objectives.
- High rank in the EPI shows long-standing commitments to protecting public health, preserving natural resources and decoupling greenhouse gas (GHG) emissions from economic activity.

Key Notes about India

- The report has ranked India as fourth worst country worldwide in curbing environmental pollution.
- India has slipped from 141st position in 201 reports.
- The low rank of emerging economies including China (120) and Ind (177) indicates strain population pressures and rapid economic growth impose on the environment.
- As per the report, substantial populations still suffer from poor air quality most notably in India, China, and Pakistan (169).
- Report also notes that the low scores on the EPI are indicative of the need for national sustainability efforts on a number of fronts, especially cleaning up a quality, protecting biodiversity and reducing GHG (green house ga emissions

UNWTO Award for Ecotourism Trust

In News: Mangalajodi Ecotourism Trust of Odisha wins prestigious United Nations World Tourism Organization (UNWTO)

- Award for Innovation in Tourism Enterprise 14th UNWTO Awards ceremony held in Madrid, Spain.
- The award was given in recognition of Mangalajodi business model
- Business model that is both economically viable an environmentally sustainable based on principles of community ownership Eco Tourism.

Key Facts

- Mangalajodi Ecotourism Trust is community owned and managed venture promoted by RBS Foundation India and Indian Grameen Services on banks of Chilika Lake in Odisha.
- The villagers of Mangalajodi were once associated with poaching of birds neaChilika Lake but now they stand as true defenders of wildlife in the region.
- The change was mainly due to a coordinated effort in implementing an awareness campaign on importance of preserving natural species and benefits associate with wildlife tourism.
- The change has soared numbers of birds from 2000 (during pea unsustainable hunting) to over three lakh in the region.
- Moreover other visible impacts this change has resulted in increasing revenue through ecotourism sharp fall in poaching incidents and increasing support of villagers.

Chilika Lake

- Chilika Lake is largest coastal lagoon or brackish water lake in India and Asia and second largest lagoon in the world.
- It is located at mouth of Ganjam districts of Odisha state on east coast of India, covering an area of over 1,100 km².
- It is largest wintering ground for migratory waterfowl found anywhere on Indian sub-continent.
- It is one of hotspot of biodiversity in country and some rare, vulnerable and endangered species listed in IUCN Red List of threatened Animals.
- It was designated as the first "Ramsar Site" of India on account of its rich bio-diversity and ecological significance.

World Tourism Organization (UNWTO)

- UNWTO is United Nations agency responsible for promotion of responsible sustainable and universally accessible tourism.
- It is leading international organization in field of tourism.
- It promotes tourism as driver of economy growth, inclusive development and environmental sustainability.
- It offer leadership and support to sector in advancing knowledge and tourism policy worldwide.
- It is headquartered in Madrid, Spain. Its membership includes 15 countries, 6 territories and over 500 affiliate members.

No Captive Breeding of Chiru

In News: The Ministry of Environment and Forests and Climate Change (MoEFCC) has refused to allow captive breeding of Chiru (Tibetan antelope), whose under fur is used for making famous shahtoosh shawls.

- The suggestion for captive breeding was made by Parliamentary Standing Committee on Science Technology, Environment & Forests asking to consider captive breeding as will add to livelihood of people of Kashmir.
- Shahtoosh shawls Chiru for long time have been hunted for their under fur, which is renowned for its quality which is traditionally woven into an extremely fine fabric to make shahtoosh shawls.
- It takes three to five hides to make a single Shawl. Moreover, the wool cannot be sheared or combed and to collect the fur, the animals have to be killed.
- At present, Shahtoosh shawls' sale and possession banned in India and in many countries.

Parliament Panel View

- The Parliament panel was of view that MoEFCC should conserve and breed Chiru goat, which can then be given to shawl makers for collecting hair.
- There would increase number of these goats but would also add to sustainable livelihood opportunities of people of Kashmir, who are lot dependent on the handicraft of embroidered shawls.
- It also cited that China and Mongolia are breeding Chiru goats for its wool, which is very expensive.
- The cost of an embroidered shahtoosh shawl can run into crores of rupees.

MoEFCC Argument

- Chiru is assessed as 'Near Threatened' by the International Union for Conservation of Nature (IUCN) 2017.
- Their current low population can only be maintained with continued high levels of protection in its natural.
- A relaxation in protection regime of animal will lead to rapid population decline due to commercial poaching.
- Chiru inhabits high-altitude Tibetan plateau and requires large expanse of land for its movement and ranging patterns to fulfill its feeding and breeding requirements.
- Rearing it in captivity is extremely difficult.
- Besides, an attempt to do conservation breeding at very high altitude regions of Ladakh may not be economical or feasible as humans cannot be posted there continuously for more than 2-3 months.
- Moreover Chinese also have failed to keep Chiru in captivity due to its poor survival rates.

Chiru (Tibetan antelope)

- Its scientific name is *Pantholophs hodgsonii*.
- This antelope is considered to be close to goat family.
- It lives at a 3,250-5,500 meter elevation in high altitude plains and mountain valleys comprising of alpine and desert steppe a pasture, distinguished by low vegetation cover and productivity.
- Predator such as wolf, lynx, snow leopard, and red fox are predators of chirus and the young calves.
- **Protection Status:** 'Near Threatened' in IUCN Red List.
- It has been enlisted Schedule I of Wildlife Protection Act, 1972.
- To enhance its protection, its prime habitats have been declared as Wildlife Sanctuaries viz. Karakoram Wildlife Sanctuary and Changthang Cold Desert Wildlife Sanctuary.

Flamingo Festival

In News: The three-day annual Flamingo Festival was held at Pulicat lake and Nelapattu Bird Sanctuary in Sullurpamandal.

- Flamingo Festival is held every year to promote tourism in Pulicat and Nelapattu.

Key Facts

- Flamingo Festival is being organized for the past 12 years.
- Migratory birds from Siberia visit this place during winter season for breeding. Somewhere between 9,000 to 12,000 migratory birds arrive at Pulicat region for breeding this season.
- Usually around 80 different avian species migrate to Pulicat for breeding.
- The hunt in shallow waters of lake and breed there.
- Once the breeding season concludes, they fly away to their native land with their offspring in tow.
- Nelapattu Bird Sanctuary Nelapattu Bird Sanctuary is one of the biggest habitats for some hundreds of pelicans and other birds.
- It is located about 20 km north of the Pulicat Lake on the Andhra Pradesh-Tamil Nadu border.
- This sanctuary spread in about 459 hectares and plays important role in nesting of various birds especially migratory birds.

- Every year during winter season from October to March, different species of migratory birds, roosting migrants and some rare and endangered species from various parts of the world visit the habitat.

Pulicat Lake

- Pulicat Lake is the second largest brackish water lake or lagoon in India after Chilika Lake.
- It is located on border of Andhra Pradesh and Tamil Nadu with over 96% of it in Andhra Pradesh and 4% in Tamil Nadu situated on Coromandal Coast in South India.
- The lake encompasses Pulicat Lake Bird Sanctuary.
- The barrier island of Sriharikota separates the lake from the Bay of Bengal and is home to Satish Dhawan Space Centre.
- Arani and Kalangi are two rivers which feed the lagoon. The Buckingham Canal, a navigation channel, part of the lagoon on its western side.

TECHNOLOGICAL AFFAIRS

ISRO's Path to 100th Satellite Launch

In News: With the recent launch of ISRO's 100th satellite, it is imperative to know the strengths and track its progress over the years.

Recent Launch

- ISRO recently launched its 100th satellite Cartosat-2, a weather observation satellite.
- The PSLV carried along with this, 30 other satellites from its spaceport of Sriharikota in Andhra Pradesh.
- They include two satellites from India and 28 satellites from six countries - Canada, Finland, France, Korea, the UK and the US.

ISRO

- The Indian National Committee on Space Research was constituted by the Indian government in 1962, with Vikram Sarabhai as its chairman.
- This was mandated to look into the possibility of having a national space programme.
- ISRO started with the launch of Nike-Apache Sounding rockets from Thumba way back in 1963.
- The "leapfrogging" for India came with the famous SITE (Satellite Instructional Television Experiment) launch in 1975.
- This was an experimental satellite communication project to provide educational television programmes on agriculture and farming.
- Jointly developed by ISRO and NASA's cooperation, it helped both farmers and Indian space scientists to gain technical expertise.
- Thereafter ISRO has made strides with many of its successes and is now a major player in the field of outer space.

Strengths

- **Personnel** - ISRO has always believed in the "homegrown" talent and has provided them enough chances and platform.
- Most of its engineers and scientists come from departments of basic sciences from India's universities.
- **Objective** - When Soviets launched the Sputnik-1 in the late 1950s, a cold war of space rivalry began between them and the Americans.
- Being a newly independent nation and facing resource scarcity, India never saw outer space as a battleground for supremacy.
- The primary idea with ISRO was to use space technology for developmental purposes.
- The Indian space programme, since its inception, has primarily been a "civilian" space programme.
- **Institution** - ISRO, as an institution, started functioning only from August 15, 1969.
- As an institution, it has been a standing proof for the age-old proverb - "institution building is a key to great power making".
- It started delivering successfully almost every time and even after some failures, ISRO has come out stronger every time.

Challenges

- The National Committee on Space Research was constituted in 1962, the same year when India lost a costly war to China.
- The then condition of India's finance was not conducive for any space goals and determinations.
- Thus, engineers and scientists in Indian space programme were always under a burden of lot of expectations to prove the purpose.
- There were critics arguing against spending on "elite" things like outer space when millions were toiling hard under poverty.
- However, the resolve of ISRO and political will of the ruling dispensation in the 1960s made India take forward its space dreams.
- ISRO still works within very low budgets, as compared to the huge budgets of NASA and other space programmes.

- Thumba is a suburb of Thiruvananthapuram, the capital of Kerala.
- The Thumba Equatorial Rocket Launching Station (TERLS) is an Indian spaceport operated by the ISRO.
- Thumba is located very close to the *magnetic equator* of the Earth, making it the ideal location to conduct atmospheric research.
- It is ideal for low-altitude, upper atmosphere and ionosphere studies.
- It is currently used by ISRO for launching sounding rockets/research rocket (an instrument-carrying rocket to take measurements and perform scientific experiments during its sub-orbital flight).

Magnetic Equator

- The magnetic equator is defined as the line around the earth where the magnetic field is horizontal, or parallel to the earth's surface.
- It does not circle the earth as a smooth line like the geographic equator, but instead it meanders north and south.

Two BeiDou-3 navigation satellites

In News: China has successfully launched two BeiDou-3 satellites to provide navigation and positioning services to countries along Belt and Road initiative (BRI) by the end of 2018.

- The two satellites were designated as BeiDou-3 M7 and BeiDou-3 M8 (26th and 27th satellites) in BeiDou Navigation Satellite System (BDS).
- Key Facts
- These two satellites were launched on board of Long March-3B carrier rocket from Xichang Satellite Launch Centre in southwestern province of Sichuan.
- This was first launch of the BeiDou satellites in 2018.
- China is planning to send 18 BeiDou-3 satellites into space in 2018.
- These two satellites were based on newly-developed dedicated satellite bus and weigh about 1 metric ton each.
- Both spacecraft had two deployable solar arrays and are designed to be operational for about 12 years.
- These newly launched satellites represent third phase of BDS system (BeiDou-3).
- BeiDou
- BeiDou is 2nd generation of Chinese homegrown navigational system seen as rival to US's Global Positioning System (GPS).
- It was named after Chinese term for plough or Big Dipper constellation.
- It comprises constellation of total 35 satellites in two separate satellite constellations viz. limited test system (operational since 2000) and full-scale global navigation system which is currently under construction.
- The first BeiDou satellite was sent into space in 2000.
- It became operational in December 2011, with constellation of 10 satellites providing services in China only.
- In December 2012, it began offering services to customers in Asia-Pacific region. On its completion in 2020, it will provide services to global customers.
- Currently it used for civilian services in field of navigation, messaging, transportation and weather forecasting sectors. It also has military applications.

Skeletal Muscle Tissue from Stem Cells

In News: Scientists from Duke University in North Carolina, US for first time have developed working human skeletal muscle from stem cells in the laboratory.

Stem cells

- Stem cells are undifferentiated biological cells that can differentiate into specialized cells and can divide to produce more stem cells.
- They are found in multicellular organisms.
- In mammals, there are two broad types of stem cells: embryonic stem cells and adult stem cells.
- Embryonic stem cells can be isolated from the inner cell mass of blastocysts and adult stem cells are found in various tissues which can act as a repair system for the body, replenishing adult tissues.

Key Facts

- Scientists had developed human skeletal muscle using adult skin or blood cells that were reprogrammed into a juvenile, versatile state.
- These cells were induced pluripotent stem cells (iPSCs) which can become any other type of human cell like naturally-occurring stem cells found in embryos.
- In this case, the iPSCs were coaxed into becoming skeletal muscle cells.
- The breakthrough was made possible by unique cell culture conditions in lab and special 3-D scaffold which allowed cells to grow much faster and longer.
- The tissue contracted and reacted to external stimuli such as electrical pulses or chemical signals.
- It was also implanted into adult mice, where it survived and functioned for at least three weeks.

Significance

- The development is breakthrough that holds promise for sufferers of degenerative muscular diseases.
- This technique will allow scientists to grow endless amount of functioning muscle in lab to test to test drugs and gene treatments for degenerative diseases.

SpaceX Launches Secretive Zuma mission

In News: California-based Private space flight company SpaceX has launched secret Zuma Mission for US government.

- It was launched on board of SpaceX Falcon 9 rocket from the Cape Canaveral Air Force Station in Florida, US.

Zuma Mission

- It is a secret mission in its nature or purpose and the agency behind it remains a mystery.
- It has been manufactured by Northrup Grumman, Virginia-based aerospace and Defense Company.
- It was delivered to low-Earth orbit (LEO).

SpaceX

- SpaceX (Space Exploration Technologies Corporation) is aerospace manufacturer and space transport services company headquartered in California, US.
- It was founded in 2002 by Elon Musk, with the goal of creating the technologies to reduce space transportation costs and enable colonization of Mars.
- SpaceX has developed the Falcon 1 and Falcon 9 launch vehicles, both designed to be reusable, thus reducing the cost of launch.
- It also has developed Dragon spacecraft to supply cargo to ISS. It is also developing manned version of Dragon.
- In 2008, SpaceX had created history by launching first privately funded, liquid propellant rocket Falcon 1 to reach orbit in 2008. It also became first privately funded company to successfully launch, orbit and recover spacecraft (Dragon) in 2010. It was also first private company to send a spacecraft to ISS, in 2012.

NASA's Missions: GOLD and ICON

In News: The National Aeronautics and Space Administration (NASA) will launch two missions — GOLD and ICON later this year.

- They will team up to explore the ionosphere, located 96 km above Earth's surface.
- The Global-scale Observations of the Limb and Disk (GOLD) mission will be launched in January 2018 and Ionosphere Connection Explorer (ICON) will be launched later this year.

Key Facts

- The two missions will be complementary to each other.
- ICON will launch in low-Earth orbit (LEO) located at 560 km above Earth, like a close-up camera.
- GOLD will be launched in geostationary orbit over Western Hemisphere, about 35,398 km above earth.
- It will help in full-disk view of ionosphere and upper atmosphere beneath it every half hour.
- The two missions can cooperate with each other when ICON passes through GOLD's field of view and each mission can get snapshot of same region.
- This overlap in their data will make it easier to identify reasons for changes in upper atmosphere at a given time.
- One of missions' goals is to measure how upper atmosphere changes in response to hurricanes and geomagnetic storms.
- GOLD will also explore how upper atmosphere reacts to geomagnetic storms, which are temporary disturbances of Earth's magnetic field caused by solar activity.
- At night, GOLD will examine disruptions in ionosphere, which are mainly dense, unpredictable bubbles of charged gas that appear over equator and tropics, sometimes interfere with radio communications.

Ionosphere

- The ionosphere is located between 60 and 400 km above the mesopause.
- It contains electrically charged particles known as ions, and hence, it is known as ionosphere.
- Radio waves transmitted from the earth are refracted back to the earth by this layer and is used for radio propagation to distant places on the Earth.
- In this layer temperature starts increasing with height.

Indian typhoid vaccine for global use

In News: The World Health Organization (WHO) has given its prequalification to Tybbar Typhoid Conjugate Vaccine (TVC) developed by Hyderabad based Bharat Biotech for global use.

- Tybbar TCV is world's first typhoid vaccine clinically proven to be administered to children from six months of age to adults, and confers long-term protection against typhoid fever.
- It has been evaluated in Human Challenge Studies at Oxford University.

Significance

- The WHO pre-qualification enables procurement and supplies of this lifesaving vaccine to UNICEF, Pan-American Health Organization (PAHO) and GAVI (vaccine alliance) supported countries.

- This also paves the way for WHO member countries to introduce the Typbar TCV into their immunization programs.
- TCVs are innovative products having longer-lasting immunity than older vaccines and require fewer doses. They can be given to young children through routine childhood immunization programs.
- TCVs have been recommended by WHO's Strategic Advisory Group of Experts on Immunization (WHO-SAGE).

Typhoid

- Typhoid fever is caused by bacterium *Salmonella Typhi* (S. Typhi).
- It infects humans due to contaminated food and beverages from sewage and other infected humans.
- Its symptoms include fever, fatigue, headache, abdominal pain, and diarrhea or constipation.
- Currently, a third of global population is at risk of typhoid fever, which results in loss of work and wages, lowered pregnancy outcomes and impaired the physical and cognitive development of children.
- According to International Health Metrics and Evaluation (IHME) estimates in 2016, there were approximately 12 million cases of typhoid fever resulting in around 130,000 deaths.
- Urbanization and climate change have potential to further increase global burden of typhoid.

NASA to Launch Parker Solar Probe

In News: NASA is going to launch Parker Solar Probe in 2018 to explore the sun's outer atmosphere. It will be launched onboard of Delta IV Heavy launch vehicle.

It will perform its scientific investigations in a hazardous region of intense heat and solar radiation. **Primary Goals of Mission:** Trace how energy and heat move through solar corona.

Parker Solar Probe mission

- It is NASA's planned robotic spacecraft to probe outer corona of Sun.
- It has been designed and built by Johns Hopkins University Applied Physics Laboratory.
- It is named after solar astrophysicist Eugene Parker.
- This is first time NASA spacecraft named after living person.
- The spacecraft is designed to endure harsh environment near Sun, by approaching within 8.5 solar radii (5.9 million kilometers) to 'surface' (Photosphere)
- It will be protected by solar shadow-shield made of reinforced carbon-carbon composite.
- The spacecraft systems and scientific instruments are located in central portion of shield's shadow, where direct radiation from Sun is fully blocked.
- The primary power for mission is dual system of solar panels (photovoltaic array).
- Secondary source consists of much smaller secondary array power that uses pumped-fluid cooling to maintain operating temperature.
- It will use Venus' gravity during seven flybys over nearly seven years to gradually bring its orbit closer to Sun.
- It will achieve velocity of up to 200 km/s, making it fastest spacecraft to date.

Scientific goals

- Determine structure and dynamics of magnetic fields at sources of solar wind.
- Trace flow of energy that heats corona and accelerates solar wind.
- Determine what mechanisms accelerate and transport energetic particles.
- Explore dusty plasma near Sun and its influence on solar wind and energetic particle formation.

CLIO

SangeetNatakAkademi awards

- SangeetNatakAkademi's Fellowships (AkademiRatnaSadasya) and SangeetNatakAkademi Awards (AkademiPuraskar) are two awards presented annually.
- These awards are recognised as the most coveted national honours bestowed on performing artists as well as teachers and scholars of performing arts.
- The award will be given to the eminent persons from the field of tribal music, dance, theatre and traditional folk arts.

SangeetNatak Academy

- The SangeetNatakAkademi was set up in 1953 for the promotion of performing arts.
- The SangeetNatakAkademi is an Autonomous Body under the Ministry of Culture.
- It acts at the national level for the:
 1. Promotion and growth of Indian music, dance and drama;
 2. Maintenance of standards of training in the performing arts;
 3. Revival, preservation, documentation and dissemination of materials as well as instruments relating to various forms of music, dance and drama.
 4. Recognition of outstanding artists.
- The Akademi is also responsible for the establishment and maintenance of institutions and projects of national importance in the field of performing arts.

Cyber & Information Security (CIS) Division

- Union Ministry of Home Affairs has created Cyber & Information Security (CIS) division.
- Under this division Indian Cyber Crime Coordination Centre (I4C) and the Cyber Police Force will be set up.
- The CIS Division will have four Wings, namely Security Clearance, Cyber Crime Prevention, Cyber Security and Information Security Wings each headed by an Under Secretary level Officer.
- It is also proposed to appoint the Chief Information Security Officer (CISO) and Deputy CISO.

Highest ranked SMART city

- Surat has emerged as India's highest ranked smart city with the largest number of projects implemented and completed under the Smart City Mission.
- Surat is closely followed by Pune at number two, Visakhapatnam, Udaipur, Bhubaneswar, Ahmedabad, Bhopal, Coimbatore, Jaipur and Indore.
- Almost all these cities have planned command and control centres to control urban services like city-wide Wi-Fi network, safety and security, citizen feedback management, integrated traffic management, parking and other citizen services.

National Logistics Plan

- Recently Union government has introduced an ambitious national logistics plan to allow seamless movement of inputs and finished goods across the country.
- By this government aims to come out with the most cost-effective method to transport goods till 2035 to provide a competitive edge to the Indian industry.
- Logistics division in the commerce department is in talks with logistics providing ministries of railways, roadways, shipping, inland waterways and civil aviation besides the logistics using ministries including food processing, coal and mines to chalk out the plan.
- The logistics division has created a National Logistics Information Portal, which will also be an online logistics marketplace.

World Future Energy Summit

- The World Future Energy Summit (WFES) is an annual event, dedicated to advancing future energy, energy efficiency and clean technologies.
- It will be held in Abu Dhabi every year and it includes a summit, an exhibition, Round Table Discussions, the Young Future Energy Leaders program, corporate meetings and social events.
- International policy makers, industry leaders, investors, experts, academia, intellectuals and journalists will be participating the summit.
- International Solar Alliance participated in the recently held WFES.

International Solar Alliance (ISA)

- In accordance with CoP21 Paris Declaration ISA was established as a treaty based international inter-governmental alliance.
- It is alliance of 121 solar resource rich countries lying fully or partially between the Tropics of Cancer and Capricorn.
- The Headquarters is in India with its Interim Secretariat being set up in Gurgaon.

- The agreement will become operational after at least 15 countries have ratified it.
- So far 19 countries have ratified and 48 countries have signed the ISA Framework Agreement.
- International Solar Alliance (ISA) Framework Agreement entered into force thereby making ISA a de jure treaty based international intergovernmental organisation.

Lalit Kala Akademi's National Exhibition of Art

- It is held every year to exhibit works of brilliance and to give appreciation and recognition to outstanding artists.
- The exhibition covers artworks from extensive series of mediums like paintings, sculptures, graphics, photographs, drawings, installation and multimedia.

Lalit Kala Akademi

- Lalit Kala Akademi (National Academy of Fine Arts) is an autonomous organisation under the Ministry of Culture.
- It has headquarters at New Delhi and regional centres at Bhubaneswar, Chennai, Kolkata, Lucknow and Shimla.
- Lalit Kala Akademi is the nodal agency of the Government of India to promote understanding of Indian art, both within and outside the country.
- The Akademi conducts international exhibition on contemporary art in New Delhi every three years.
- It also conducts the National Exhibition of Photography and Art.
- It publishes bi-annual art journals, Lalit Kala Contemporary (English), Lalit Kala Ancient (English) and Samkaleen Kala (Hindi).

PradhanMantriSurakshitMatritvaAbhiyan (PMSMA)

- The PMSMA programme was launched in 2016 under the ministry of health and family welfare.
- It aims to ensure free comprehensive and quality antenatal check-ups to pregnant women for ensuring safe pregnancy.
- The programme is carried out across India with participation of private doctors.

AGNI- V

- Recently India test-fired Agni-V, an Inter-Continental Ballistic Missile in its final operational configuration.
- Agni V is a nuclear capable missile, which can reach the northern-most parts of China with its strike range of over 5,000-km.
- The missile is over 50-tonne and designed to carry a 1.5-tonne nuclear warhead.
- It is considered to be a credible strategic deterrent against India's aggressive foes.
- It is part of the Agni series surface to surface missiles indigenously developed by DRDO under the Integrated Guided Missile Development Program (IGMDP).

NirmanSamvaad

- A one-day Mega Conclave called 'NirmanSamvaad', a first ever interaction between the Ministry of Railways and the Construction Industry concluded recently.
- It was a major event aimed at taking measures to ensure expeditious implementation of ambitious Railway Infrastructure Development Plans.
- The Conclave was organized by Rail Vikas Nigam Ltd. (RVNL), a dedicated arm of Ministry of Railways for fast track implementation of railway projects.

Operation Digital Board

- The Central Advisory Board of Education (CABE) recently passed a resolution to take steps towards Operation Digital Board.
- The idea of Operation Digital Board is aimed at providing better digital education in all schools.
- These steps will be on the lines of Operation Blackboard of 1987, which was started with the purpose of providing minimum basic facilities to all primary schools.
- This will offer new opportunities and ways of teaching and learning in schools.
- CABE is an advisory body under the Ministry of Human resource Development.

Cyber Surakshit Bharat

- Ministry of Electronics and Information Technology (MeitY), announced the Cyber Surakshit Bharat initiative.
- It aims to spread awareness about cybercrime and building capacity for safety measures for Chief Information Security Officers (CISOs) and frontline IT staff across all government departments.
- Cyber Surakshit Bharat is the first public-private partnership of its kind and will leverage the expertise of the IT industry in cyber security.
- Cyber Surakshit Bharat aims to conduct a series of training programs for departments in State and Union governments, Public Sector Banks, and technical arms of the Air Force, Army and Navy.

Australia Group

- Recently the Australia Group decided to admit India as its 43rd participant.
- India's entry would contribute to international security and non-proliferation objectives.
- The Australia Group (AG) is an informal forum of countries which, seeks to ensure export controls over development of chemical or biological weapons.
- By this AG nations would fulfil their obligations under the Chemical Weapons Convention and the Biological and Toxin Weapons Convention to the fullest extent possible.
- The other groupings like Australia group are MTCR, Wassenaar arrangement and NSG.

MTCR

- It is a multilateral, consensus based grouping of 35 member countries who are voluntarily committed to the non-proliferation of missiles capable of carrying chemical, biological and nuclear weapons of mass destruction (WMDs).
- It controls the export of the technologies and materials involved in ballistic missile systems and unmanned aerial vehicles capable of carrying nuclear warheads.
- This is a non-treaty association which has a rule-based regulation mechanism to limit the transfer of such critical technologies of these missile systems.
- India joined the Missile Technology Control Regime (MTCR) in 2016.

Wassenaar Arrangement (WA)

- The Wassenaar Arrangement (WA) has been established in order to contribute to regional and international security and stability.
- It promotes transparency and greater responsibility in transfers of conventional arms and dual-use goods and technologies, thus preventing destabilising accumulations.
- The aim is also to prevent the acquisition of these items by terrorists.
- Participating States ensure that transfers of these items do not contribute to the development or enhancement of military capabilities.
- India became a member of WA in 2017.

NSG

- Nuclear Suppliers Group (NSG) is a multinational body concerned with reducing nuclear proliferation by controlling the export and re-transfer of materials that may be applicable to nuclear weapon development.
- NSG was set up in 1974 as a reaction to India's nuclear tests.

Highway Nest

- Union government has planned to install food kiosks in toll plazas run by NHAI.
- These kiosks will sell drinking water, tea/coffee, and packaged food for the convenience of highways users.
- These kiosks are termed as Highway Nest (Mini) and are under construction on both up-side and down-side at all 372 NH run toll plazas.

UN Environment Management Group (EMG)

- The EMG is a UN system-wide coordination body on environment and human settlements.
- Its members include the secretariats of the multilateral environmental agreements (MEAs) and other specialized agencies, programmes and organs of the UN.
- Representatives of intergovernmental bodies, civil society and international non-governmental organizations can be invited to contribute.
- The EMG works through technical meetings, Issue Management Groups and task forces.

Star rating for garbage free cities

- Swachh Bharat Mission-Urban has Launched Smart Star-Rating for Garbage Free Cities
- The star-rating initiative will be rating cities on a 7-star rating system based on multiple cleanliness indicators for solid waste management.
- The rating will include Door to Door Collection, source segregation, scientific processing of waste, plastic waste management, dump citizen grievance redressal system etc.
- Further city should be ODF(Open Defecation Free) before it could be given rating of 3 star or above.
- Cities will need to get recertified themselves every year to retain their star-status.

Bharat ke Veer

- Bharat ke Veer" is an online portal in which any person can make fiscal contributions to assist the families of martyrs of the Central Armed Police Forces (CAPF).
- CAPF includes Assam rifles (AR), Border security force (BSF), National security guards(NSG), Central industrial security force (CISF), Central reserve police force (CRPF) , Indo-Tibetan border police force (ITBT), National disaster response force (NDRF),SashastraSeemaBal (SSB).
- Through this portal one can donate directly to individual Martyrs account (up to max of Rs 15 lakhs) or may donate to the Bharat Ke Veer corpus fund.

- Bharat Ke Veer corpus would be managed by a committee made up of eminent persons of repute and senior government officials, in equal number, who would decide to disburse the fund equitably to the brave hearts family on need basis.

Accessible India Campaign (AIC)

- It is a nationwide flagship campaign of the Department of Empowerment of Persons with Disabilities (DEPwD) under Ministry of Social Justice and Empowerment.
- The aim of the Campaign is to make a barrier free and conducive environment for differently abled all over the country.
- For creating universal accessibility for differently abled persons the campaign has been divided into three verticals:
 1. Built Environment.
 2. Transport.
 3. Information & Communication Technology (ICT) ecosystem.
- This campaign is in line with UNCRPD (UN Convention on the Rights of Persons with Disabilities) to which India is a signatory.

Automated ocean pollution observation system

- Union government has planned to setup an automated ocean pollution observation system.
- These systems will be installed in coastal areas of West Bengal, Goa, Mumbai, Kochi, Vishakhapatnam and Chennai.
- It will help keep a tab on ocean pollution levels apart and provides insights on how the marine system is changing.
- It is an initiative under National Centre for Ocean Information Services (INCOIS), an autonomous body under the Ministry of Earth Sciences.

Meghalaya Statehood Day

- Recently Meghalaya celebrated its 46th statehood day.
- Under the North-Eastern Areas (Re-organisation) Act, 1971, Manipur, Meghalaya and Tripura attained statehood on January 21, 1972.

5G technology

- Union telecom ministry had announced 5G technology will be rolled out from 2020.
- 5G promises ultra-reliable, very fast speeds and high bandwidth mobile connectivity and supports massive interconnected devices spread across wide areas like Internet of things (IoT).
- 5G provides peak speeds of 20 times, compared with 4G.
- This would entail accelerating the BharatNet programme for deploying connectivity infrastructures.

National Optical Fibre Network (NOFN)

- National Optical Fibre Network (NOFN) is an ambitious initiative to trigger a broadband revolution in rural areas.
- It aims to connect all the Gram panchayats in the country and provide 100 Mbps connectivity to all gram panchayats (GPs).

Bharat Net

- BharatNet project was established in 2017, to provide digital infrastructure on a non-discriminatory basis by an affordable broadband connectivity of 2 Mbps to 20 Mbps for all households.
- The entire project is being funded by Universal Service Obligation Fund (USOF), which was set up for improving telecom services in rural and remote areas of the country.
- The objective is to facilitate the delivery of e-governance, e-health, e-education, e-banking, Internet and other services to the rural India.

NASA's Kilopower Project

- NASA has invented a small nuclear reactor Kilopower, It can generate a reliable power supply by using uranium-235 reactor core.
- This power system could provide up to 10 kilowatts of electrical power enough to run two average households continuously for at least 10 years.
- This reactor will be used for electronic propulsion systems and for providing safe and plentiful energy for future robotic and human missions for Mars and beyond.

Credit scores

- A credit score determines how creditworthy a person is and helps banks and financial institutions decide on loans.
- In India, the scores are issued by credit reporting agencies such as CIBIL, Equifax, Experian, Etc.
- These agencies are regulated by the RBI and collect data from banks on their loans and come up with credit scores through use of algorithms.
- The data is updated frequently. Credit scores in India range from 300-900.
- A credit report may be obtained for free once a year from every credit reporting agency.

Forest Helpline

- Maharashtra government has launched 24X7 forest helpline numbers “1926”.
- This helpline number can be used to lodge complaints or get information about a variety of issues related to forests and wildlife.
- This is the first of its kind in the country to address the general and emergency queries of the citizens regarding forest department.

HansaJivraj Mehta

- HansaJivraj Mehta a social activist served in the constituent assembly from 1946-1949, was a Padma Bhushan awardee.
- She was a member of the Fundamental rights sub-committee, the advisory committee and the provincial constitutional committee.
- Hansa Mehta’s most significant contribution to the constituent assembly debates was in trying to make the Uniform Civil Code (UCC) a justiciable part of the constitution.
- She also served as a member of the UN subcommittee on the United National Declaration of Human Rights committee.
- She successfully championed her cause changing the phrase in the Universal Declaration of Human Rights, from “All men are born free and equal” to “All human beings are born free and equal.”

First investment for NIIF

- Recently a Dubai based marine firm DP World has partnered with NIIF to create an investment platform for ports, terminals, transportation and logistics businesses in India.
- National Investment and Infrastructure Fund (NIIF) is set-up to function as a major platform in India for attracting foreign investments to fund stalled infra projects.
- The NIIF is being operationalized by establishing three Alternative Investment Funds (AIFs) under the SEBI Regulations.
 1. The proposed corpus of NIIF is Rs. 40,000 Crores (around USD 6 Billion).
 2. GOI’s contribution to the AIFs under the NIIF scheme shall be 49% of the total commitment.
 3. NIIF has mandate to solicit equity participation from strategic anchor partners, like overseas sovereign/quasi-sovereign/multilateral/bilateral investors.

International Dam Safety Conference

- India will be hosting the International Dam Safety Conference 2018 at Thiruvananthapuram on January 23-24.
- Central Water Commission is organizing the event in association with Kerala state government.
- Dam safety conferences is an annual event under the Dam Safety Rehabilitation and Improvement Project (DRIP) project, the conferences will be conducted in DRIP states.
- The key recommendations emerging from the deliberations of the conference will be circulated to stakeholders as well as policy makers for implementation.

DHARMA App

- Dam Health and Rehabilitation Monitoring Application (DHARMA) will be launched during the international dam safety conference.
- The app will serve as a web tool to digitize all dam related data effectively.
- It will help to document authentic asset and health information pertaining to the large dams in the country, enabling appropriate actions to ensure need based rehabilitation.

DRIP

- Dam Rehabilitation and Improvement Project (DRIP) was implemented by Ministry of Water Resources (MoWR) with assistance from the World Bank.
- The Central Dam Safety Organisation of Central Water Commission is coordinating and supervising the Project implementation.
- The main objectives of DRIP are
 1. To improve the safety and performance of selected (223 dams across 7 different states) existing dams in a sustainable manner.
 2. To strengthen the dam safety institutional setup in participating states as well as at central level.
- The Seven DRIP States includes Jharkhand, Karnataka, Kerala, Madhya Pradesh, Odisha, Tamil Nadu, and Uttarakhand.

Road kills App

- Wildlife Conservation Trust (WCT) a wildlife NGO has developed a mobile app called Road Kills.
- This app will help citizens to report wildlife deaths by uploading geo-tagged photographs to a public forum.
- The information generated from the application can help identify crucial sections of roads or railway lines where animal deaths are high to pinpoint regions that require urgent mitigation measures.
- The data can also help determine what species are more at risk on specific road or rail stretches.

Nation Year of Millets

- Union government is about to announce 2018 as National year of millets.
- Under which union government will adopt a mission-mode approach to promote the nutrient-rich cereals, including sorghum, ragi and foxtail millets.

- The millet mission will boost production of these cereals, which are naturally rich with protein and nutrients such as iron, calcium and zinc, and also consume less water and inputs, thus being ecologically sustainable.

State of Education in Rural India

Context: Despite the improvements in the educational condition, there are problems that still persist, especially in rural India.

Current Scenario

- As late as 2001, only a little over 25% of all rural 18-year-olds were attending schools.
- The rest dropped out earlier.
- By 2016, the share of 18-year-olds in schools and colleges had gone up to 70%.
- Girls have closed the gap with boys in rural areas.
- At age 14, 94% of girls and 95% of boys are enrolled in school.
- By age 18, 68% of girls and 72% of boys are still in school.

Downsides

- The quality of education in rural schools is dismal.
- Among 14-18-year-olds, only 43% could solve a class IV mathematics problem.
- This proportion was roughly the same among 14-year-olds as among 18-year-olds.
- This shows that the problem of low learning outcomes was not resolved by remaining in school.
- Only 40% of 18-year-olds could take 10% off a given number.
- Most could not locate their state on a map of India.
- 27% of 14-year-olds, and 21% of 18-year-olds could not read a class II textbook in the regional language, and more than 40% in each age group could not read a simple sentence in English.

Effect on the Society

- The belief has gained ground in rural India that education will be the road out their livelihood.
- Most of the students are first-generation learners.
- Soon this younger generation will be graduating from high schools and colleges and then they will find that there are very few good jobs.
- This might kindle reaction against education.

Way Forward

- Raising the quality of education in rural schools is essential.
- Privatizing the government system is not a viable solution.
- The market for education performs poorly in situations where information flows are sparse and competition is limited or non-existent.
- The essential problem is one of a broken governance system.
- There are few rewards for being a good teacher and few punishments for being a careless one.
- A system should be put in place, where teachers are innovative in the classroom and parents are involved as co-decision-makers.

India's Research Framework

Context: India's significance is rising on the world science research stage but it is also facing issues that are undermining the research ecosystem.

Positives

- **UNESCO Science Report 2015** has pointed out that India has become a hub for **low cost innovation**.
- India has continued building its capacity in low cost engineering.
- Such an approach has helped in making products affordable to the masses and has also enhanced its export profile.
- It progress encompasses various domains like - space technology, pharmaceuticals and IT and more recently, aviation parts.
- **Global Patent Share** – India stood 7th in terms of the number of patents filed by residents and non-residents domestically.
- The top 6 countries are China, US, Japan, South Korea, EU, Germany.
- But notably, patents have grown much faster with income in countries like China, Korea, and Japan.
- **Scientific publications** - It has been growing at an impressive 10%.
- In terms of scientific output per dollar spent on research puts India on par with the best in the world.
- This suggests that India is an innovation hub, at least in pharmaceuticals, computer software and automobiles, where the private sector is in lead.

Concerns

- The Indian share in the number of patents sealed in India has fallen from 40% in 2001-02 to 15% in 2015-16.
- Meanwhile, the number of patents granted by the US Patent Office to Indian applicants has been on the rise, most of them being MNCs.

- The surge in FDI and R&D activity has led to MNCs accounting for over 80% of patents issued to Indians by the US patents office.
- This raises questions whether FDI has led to technology assimilation in India, something that China managed to ensure over the last three decades.
- On technology transfer, there is a lack of coordination between science and technology policy and the Make in India policy.

Funding for R&D

- Central and state governments together set aside Rs. 56,000 crore towards R&D in 2016-17, while the private sector spent about Rs. 43,000 crore.
- While the private sector seems to have a clear roadmap for the researches it undertakes, the state needs better targeting for its work.
- **Indigenous technology development** has been sparse except in strategic areas such as space, atomic energy and missiles.
- **Electronics import** which accounts for above \$40 billion annually is a measure of a lack of technological self-sufficiency.
- The amount spent as a % of GDP in R&D fell to just 0.69% in 2016-17.
- India produced only 15,300 PhDs in science, engineering and medicine fields which is only one-fifth of what china and US did.
- There is contestations that fellowship stipend is also being cut, which dissuades researchers apart from starving critical projects off funds.
- Another issue is the unduly prioritising certain niche domains like traditional medicine over other domains of research.

Social Weakness

- Quality of research has to catch up with ideas that relate to larger issues in science or society, which has proven difficult.
- The difficulty is primarily due to the weaknesses in our educational framework, which is more accentuated in the science stream.
- The university system is in near collapse, due to the dismal state of humanities, and with it the lack of the crucial inter-disciplinary ambience.
- **Compartmentalisation** - A considerable partition is emerging in research and teaching, with research being considered superior, which is affecting both.
- As teaching has largely come to be perceived as a distraction to research, there has been a constant push of talent out of classrooms.
- These attitudes, along with the fact that large grants has been flowing to projects that promise technological outcomes, basic research has suffered.
- Government has constituted "Indian Institutes of Science Education and Research" (IISERs) for reviving an inter-disciplinary approach.
- But, this is largely a half-hearted effort, as higher education accounts for just 4% of public R&D spending.

Demands for Creamy Layer in SC/STs

In News: The Supreme Court hears a petition to exclude the well offs among SCs and STs from reservation benefits.

Concerns

- There are concerns that the rich among the SC/STs were benefiting from the reservation policies.
- On the other hand, the intended deserving and impoverished population continue to be excluded.
- There is lack of percolation of benefits to nearly 95% members of these communities at the bottom, defeating the whole purpose.
- This is perpetuating the problem of rich-poor divide.
- It is also becoming a cause of social unrest, especially the Naxalite movements and the perennial problem of poverty.

Demand

- The petition argues that no class or caste remained homogeneously backward across time.
- Only the bottom sections of the caste continue to reel under disadvantageous condition.
- It thus calls for excluding the creamy layer of the Scheduled Castes and Scheduled Tribes from reservation benefits.

Legal Validity

- In 1992, a 9-judge Bench of the Supreme Court in the IndraSawhney case (or the Mandal case) gave a verdict in this regard.
- It upheld the caste-based reservation for the OBCs as valid.
- The court also said the creamy layer of the OBCs (those earning a specified **income**) should not get the benefits of reservation.
- However, it applied only to the OBCs and not the SC/STs.
- The current petition refers to a Constitution Bench's judgment in 2006.

- The judgement made **value of assets** of an individual claiming reservation as a criteria for deciding the creamy layer.
- It is now for the court to decide on the issue of skewed benefits of measures intended for rooting out social and economic backwardness.

J&K's Uniform Employment Code

In News: J&K has proposed a uniform Employment Code, in its state budget.

- A similar code for the nation is worth consideration by the union government, to address concerns in the labour laws.

Aim of the Code

- The proposed Employment Code plans to consolidate all the labour laws in force in the State.
- It would set out the framework for terms of employment and service of all the workers.
- This is however, except the domestic workers and agricultural labour.
- The code would also provide for a strong, independent and separate labour judiciary.
- A single Employment Code will provide workers, employers, trade unions, labour authorities, etc. all information at one place.

Existing Concerns with Labour Laws

- In India there are multiple labour laws at the national and state levels.
- It is primarily due to constitutional division of legislative powers.
- The multiplicity is also due to laws regulating workers in different sectors.
- There are also dissimilarities between state and union labour laws.
- Concerns with applicability of these laws to service sector employees also exist.
- Currently most of them are using laws governing shops and establishment.
- Workers and at times employers are unable to decipher labour laws without legal help.
- India also retains some outdated pre-Independence era laws.
- These include the Fatal Accidents Act, 1855, Trade Unions Act, 1926, Payment of Wages Act, 1936 among others.

Way Forward

- Provisions of all labour laws should be relooked in terms of fixing the archaic provisions instead of mechanically consolidating.
- Labour laws need to be formulated by taking the vision of 'Ease of Living' into consideration.
- The draft laws should be easy to understand, simple and clear, and reduce disputes relating to interpretation.
- Labour laws should balance the interests of different stakeholders such as workers, employers, trade unions and authorities.

ECONOMIC AFFAIRS

PSBs Recapitalisation Plan

In News: The government recently announced the details of the earlier said Rs. 2.1 lakh crore recapitalisation plan for public sector banks.

Provisions

- **Package** - The recapitalisation package will be spread across current financial year 2017-18 and the next year 2018-19.
- The government will infuse around Rs 88,000 crore into 20 public sector banks.
- These banks account for more than 80% of the bad loans.
- **Themes** - The plan includes a reforms package across six themes.
- They are:
 1. customer responsiveness
 2. responsible banking
 3. credit off take
 4. PSBs as Udyami Mitra (friends of entrepreneurs)
 5. deepening financial inclusion and digitalisation
 6. developing personnel for brand PSB
- The whole-time directors of the PSBs would be assigned theme-wise reforms to oversee.
- Their performance on the themes would be evaluated by the boards of the banks.
- **Differential approach** - The recapitalisation package would follow a differentiated approach for banks.
- The capital infusion for the PSBs would be dependent on banks' performance.
- Accordingly, the government will give more money to the weakest ones.
- These are the 11 lenders under the Reserve Bank of India's *Prompt Corrective Action* (PCA).

- In financial year 2017-18, PCA banks would get around Rs. 50, 000 crore.
- The comparatively healthier non-PCA banks would get around Rs. 35,000 crore.
- **Recapitalisation bonds** - The capital infusion will be done partly by *recapitalisation bonds* and partly by budgetary support.
- The bonds are to have a maturity period of 10-15 years and would be issued in six different slots.
- They will not have a statutory liquidity ratio (SLR) requirement and would be non-tradable.
- The government has set strict terms for issuing the recapitalisation bonds to PSBs.
- The terms include :
 - creating a stressed asset management vertical
 - tying up with agencies for specialised monitoring of loans above Rs 2.5 billion
 - strict surveillance on big loan defaulters
 - appointing a whole-time director for monitoring reforms every quarter

Fiscal Impact

- There are apprehensions that the recapitalisation bonds would affect the fiscal consolidation efforts by the government.
- The government however assured that it would not have any substantial impact on the fiscal deficit.
- This is because the recapitalisation bonds would be "cash neutral" (does not need net cash for a transaction).
- The fiscal deficit will be impacted only by the interest cost on the bonds that the government pays every year.

Benefits

- The recapitalisation package will create an incremental **lending capacity** with the banks.
- This is expected to catalyse the revival of the capital investment cycle in the economy.
- Banks will now be sufficiently capitalised to maintain **regulatory capital requirements** and also to lead growth.
- Banks would have to subject themselves to reform, become more professional, and do prudent and clean lending.
- The government would bring out a report card on compliance of these measures.

Concerns

- 46% more capital has been given to the banks under the RBI's prompt corrective action.
- This is owing to their weak capital and higher NPA levels.
- This is against the general perception that bigger and better performing banks would be rewarded with more capital.
- The plan evidently offers a **larger share of capital for weaker banks**.
- This, in a way, denies the growth capital to more deserving banks.
- Notably, weak bank's capital ratios have increased beyond the requirement to meet the regulatory threshold.
- The Centre's approach is only indicative of **higher bad loan provisioning** in the coming quarters.
- Besides, the recap plan makes some **relaxations** to existing systems.
- These are in relation with:
 - closer monitoring of big-ticket loans
 - identifying niche areas where a bank has strengths
 - restricting corporate exposure to 25%
 - a new performance management system.

Prompt Corrective Action (PCA)

- PCA is primarily to take appropriate corrective action on weak and troubled banks.
- The RBI has put in place some trigger points to assess, monitor and control banks.
- The trigger points are on the basis of CRAR (a metric to measure balance sheet strength), NPA and ROA (return on assets).
- Based on each trigger point, the banks have to follow a mandatory action plan.
- RBI could take discretionary action plans too apart from these.
- RBI has initiated prompt corrective action (PCA) in as many as 11 PSBs.
- It prohibits them from undertaking fresh business activities such as opening branches, recruiting talent or lending to risky companies.

Recapitalisation Bonds

- The idea is to borrow from the banks themselves and boost the weaker banks' capital, without immediate demand for direct government budgetary support.
- Banks will subscribe to these bonds as part of their investment portfolio.
- They will use the excess deposits they acquired from the recent demonetisation drive to invest in the bonds.
- The money raised by the government will then be used to infuse fresh equity into weaker banks.

Recapitalisation bonds

- Recapitalisation bonds were sold in 1990s to recapitalise banks.
- The government issued these bonds to the nationalised banks which subscribed them in the normal course of their business.
- The capital thus raised was used by the government to infuse fresh 'equity' into the cash starved banks.
- The idea is to borrow from the banks themselves and boost the weaker banks' capital, without an immediate demand for direct government budgetary support.
- Globally, the practice is to not include bonds in the fiscal deficit calculation. But in India, it is included as part of the deficit.
- The effect on the fiscal deficit will thus depend on the nature of the bonds and also how they are dealt with.

Basel III

- Basel III guidelines introduced in 2010, were in response to the financial crisis of 2008.
- The guidelines aim to promote a more resilient banking system by focusing on four vital banking parameters viz. capital, leverage, funding and liquidity.

'UdyamiMitra' portal

- This portal was launched by the Small Industries Development Bank of India (SIDBI) to improve accessibility of credit for the MSMEs.
- It helps MSMEs for submission of loan applications and following up the processing.
- It aims at bringing in transparency in processing of loans by the banks.
- Under the new capitalisation plan banks will have to compete for loans through the revamped udyamimitra portal.

Inclusive Development Index

In News: Inclusive Development Index was released recently by the World Economic Forum.

Inclusive Development Index

- The IDI has been developed by the WEF as a new metric of national economic performance.
- It is seen as an alternative to GDP.
- The Index on inclusiveness reflects more closely the criteria by which the people evaluate their countries' economic progress.
- The index has three pillars of growth for global economies namely:
 1. growth and development
 2. inclusion
 3. intergenerational equity and sustainability
- Accordingly, the parameters focus on the living standards of people and future-proofing of economies by the WEF.
- In the recent index, Norway tops the chart followed by Iceland and Luxemburg in advanced economies.
- Lithuania, Hungary, and Azerbaijan are the toppers among the emerging economies.

India's Inclusivity

- **India** has been ranked **62 out of 74** emerging economies.
- There has roughly been 2.3% improvement in the overall five-year trend of the IDI for India.
- However, despite this, India is **ranked below** the **neighbouring countries** of Pakistan, Sri Lanka and Nepal.
- Evidently, Pakistan has been ranked 47, Sri Lanka 40, and Nepal 22.
- **Among G20** economies, India ranks second last.
- This is ahead of only South Africa and trails behind Russia (19), China (26) and Brazil (37).
- Other **South Asian economies** such as Malaysia, Thailand, Indonesia and Philippines also ranked far better than India.

Other Key Findings

- India performs best (44th) in terms of **Intergenerational Equity and Sustainability**.
- This is primarily a result of low dependency ratio, with higher young population.
- Both **labour productivity and GDP per capita** posted strong growth rates over the past five years.
- However, **employment** growth has slowed.
- It is highlighted that the incidence of **poverty** had declined in India over the past five years.
- However, six out of 10 Indians still live on less than \$3.20 per day.
- Healthy **life expectancy** also increased by approximately three years to 59.6.

Concerns with Secondary Adjustment Rules

Context: Multinational enterprises in India are concerned about secondary adjustment rules.

- Union budget is expected to resolve issues of business community.

Secondary Adjustment Rules

- Secondary adjustment rules was brought in in 2016, which aimed to support foreign exchange.
- According to it if there was any adjustment during tax audit the Indian subsidiary of the foreign firm would be obliged to bring an equivalent amount of that adjustment from its foreign entity and then pay tax on that adjustment.
- Earlier, the Indian subsidiary could pay for the higher tax demand, due to audit etc., from its own funds, and that meant a depletion of its funds.
- Under this rule India also envisaged to impose penalties for not filing information on time, irrespective of whether the residence country of the Multinational Enterprise (MNE) has that requirement or not.

Concerns with this Rule

- The Indian rule considers any default in bringing in the money as a loan and hence considers levy of interest.
- Indian rule is like charging interest on interest and this is not in par with international practices.
- Other countries, such as the U.S. and Australia, which also have similar rules, consider this a one-time levy attracting no interest.
- This rule places extra compliance burden as well as fear in the mind of the Multinational Enterprises in India, which is certainly not in line with the government's objective of improving ease of doing business.
- Information requirements in India are much more than envisaged in OECD recommendations and put extra onus on MNEs.

Global Economic Recovery

Context:

- False economic optimism based on the apparent revival of economic activity in the major advanced capitalist regions has become the norm in world forums.
- However, critical challenges need to be addressed before any real hope for growth revival.

Optimism Justified

- There is little in terms of real change in policy orientation, and even lesser scope for internationally co-ordinated fiscal expansion.
- But optimistic observers are basing their hopes on the belief that globalisation has been the driver of the current minor rises in world GDP growth.
- But this ignores the fact that the role of cross-border trade in goods and services in pushing economic growth has changed since the global crisis.
- Notably, in the period before the global crisis, trade increased faster than income every year.
- But since then, not only has trade growth been much slower than that of income, but in several years, it did not grow at all.

Trade in Goods

- Trade in goods was flat between 2011 and 2014, and fell in the subsequent 2 years, and even the projected recovery for 2017 doesn't seem sufficient.
- Since 2009, trade volumes have grown at less than half the rate achieved in the decade before the global crisis.
- But even more significantly, trade unit prices have collapsed, showing zero change in SDR terms and absolute decline in US dollar terms.
- While oil exporters were the worst hit due to the fall in prices, even non-fuel exporters among developing countries have scarcely benefited in price terms.

Way Forward

- Trade trends and patterns of this type cannot be indicative of greater global economic dynamism.
- Clearly, the current recovery will not be sustained unless trade expansion is also put on a more secure footing through concerted global efforts.
- This will involve a fiscal push and more emphasis on higher wage incomes across the world as that is the only way to trigger demand.

Indian Stock Market Trends

Context: While stock prices are believed to be largely a factor of real earnings, recent trends in the Indian stock market have been in contradiction.

- Economic Survey has come up with an explanation for this, but this is filled with flawed assumptions and conclusions.

Present Trend

- Despite the faltering growth story over the past four years, the Indian stocks markets have been in high spirits.
- The BSE Sensex has vaulted by over 70% in this period despite just a 14% absolute expansion in its constituent companies' earnings.
- Multiple agencies have tried to reason with the high valuation of Indian stocks and the Economic survey has also come up with an interesting explanation.

Economic Survey's Explanation

- **The US Comparison** - Sensex and the US S&P 500 have shown identical gains in 2 years, with about 26 convergent trends, despite the underlying economies being quite dissimilar.
- Notably, Indian stock market surge has coincided with a decelerating economy, falling corporate profits-to-GDP ratio (3.5%) and high interest rates.
- US markets have been backed by an improving economy, stable corporate profits-to-GDP ratio (9%) and negative interest rates.
- While the Survey is hinting that the US market gains thus have far better fundamental moorings than India, it doesn't persist with it.
- **The Hypothesis** - While warning of a "sudden stall" in global asset prices, the Survey stops short of extending this dire warning to Indian markets.
- Instead, it surprisingly speculates that the higher valuation may represent a "new normal" where investors have shrunk their demanded for equity capital.
- As a fivefold expansion in mutual fund inflows were seen in FY17, it argues that there has been a structural shift in investments.
- This, it reasons, is due to anti-black money campaign of the government, which has nudged investors away from gold and property.

Flaws

- The world over, retail investors chase high returns and the Indian investors have been upping their equity bets due to double-digit market gains.
- The tax-free status for equity returns, on top of plummeting debt returns, may have driven this investing behaviour rather than any government campaign.
- Notably, there is a call for a policy-level rethink on the exceptional tax breaks on equities, which may be necessary to quell the euphoria.
- Notably, "foreign portfolio investors" still control over 25% of stocks.
- Hence, the survey's assumption that the new domestic enthusiasm will offset global tightening doesn't stand merit.
- Therefore, apart from waiting anxiously for the resurgence in corporate earnings, Indian markets needs to pay close heed to global trends.

Economic Survey: Highlights

Economic Survey

- The Department of Economic Affairs, Finance Ministry of India presents the Economic Survey.
- The Chief Economic Adviser, Finance Ministry guides in its preparation.
- It is presented in the parliament every year, just before the Union Budget.
- The survey is the finance ministry's view on the annual economic development of the country over the previous 12 months.
- It highlights the prospects of the economy in the short to medium term.
- It also summarizes the performance on major development programs, and highlights the policy initiatives of the government.

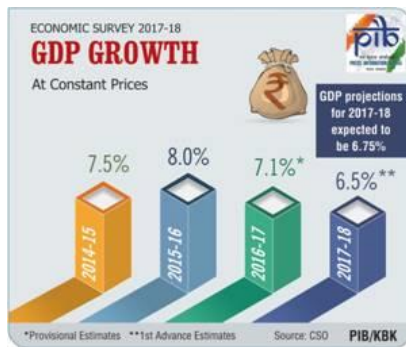
New Economic Facts

- The Economic Survey highlights 10 new economic facts on the Indian economy based on the new data. They are as follows:
- **Goods and Services Tax** - GST has led to a 50% increase in the number of indirect taxpayers.
- There has been an increase in individual income tax filers as well.
- There has also been a large increase in voluntary registrations.
- This is especially in regards with small enterprises that buy from large enterprises.
- Availing the benefit of input tax credits was a major reason.
- The fear of undermined tax collections for states due to GST transition is allayed.
- Accordingly, the distribution of the GST base among the states got closely linked to the size of their economies.
- **Formal Sector payroll** - India's formal sector, especially formal non-farm payroll, is substantially greater than believed.
- "Formality" was earlier defined in terms of social security provisions like EPFO/ESIC.
- It is now being defined in terms of being part of the GST net.
- This has increased the formal sector payroll share to 53% from the earlier 31% of the non-agricultural work force.
- **Exports of states** - Economic Survey, for the first time, deals with data on the international exports of states.
- The data indicates a strong correlation between export performance and states' standard of living.
- States that export internationally and trade with other states were found to be richer.
- 5 States of Maharashtra, Gujarat, Karnataka, Tamil Nadu and Telangana account for 70% of India's exports.

- India's internal trade is about 60% of the GDP.
- This is comparatively greater than last year's survey as well as other large countries.
- **India's exports** - The largest firms in India account for a much smaller share of exports than in other comparable countries.
- Evidently, top 1% of Indian firms accounts only for 38% of exports.
- This is unlike the 50-70% as in countries like Brazil, Germany, Mexico and USA.
- The relatively smaller share by larger firms in India makes the firm export structure of India more egalitarian.
- This is indicative of a better contribution from the smaller firms than in other countries.
- **Ready-made garments** - The Rebate of State Levies (ROSL) was announced in 2016.
- Under the RoSL, the Centre gives garment exporters refunds against all the levies they shell out at the state level.
- The relief was offered under the duty drawback scheme as part of the package for the garments industry in the GST regime.
- The incentive package boosted exports of ready-made garments by about 16%.
- **Male child preference** - The survey highlighted that Indian society still exhibited a strong desire for a male child.
- It pointed out that most parents continued to have children until they get number of sons.
- The survey brings out that this was resulting in skewed sex ratios.
- **Tax Litigation** - There is substantial avoidable litigation in the tax arena which government action could reduce.
- The tax department's petition rate is high, but its success rate in litigation is low and declining (well below 30%).
- A smaller share of total pending cases accounted for a larger share of the money value at stake (due to the tax dispute). E.g.
 - 0.2% of pending cases - 56% of the value at stake
 - 66% of cases (each less than Rs 10 lakh) - 1.8% of the value at stake
- **Growth and Investment** - It was highlighted that growth in savings did not bring economic growth.
- But the growth in investment did bring a substantial growth to the economy.
- The survey thus emphasizes that raising investment was more important than raising savings.
- **Direct tax collection** - Direct tax collections by States are significantly lower than those of their counterparts in other federal countries.
- Indian states and other local governments empowered for tax collection realise lesser collection than their actual potential.
- **Climate change** - Extreme temperature increases and deficiency in rainfall have been recorded as footprints of climate change.
- These have adversely impacted agricultural yields of the country.
- The impact was found to be twice as large in un-irrigated areas as in irrigated ones.

Economic Growth

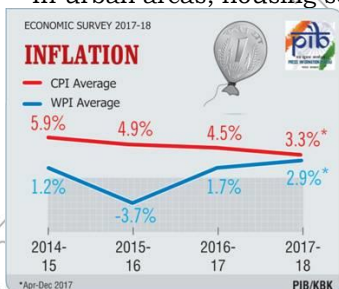
- **Projections** - The survey forecasts real GDP growth to reach 6.75% this fiscal.
- It is projected to rise to **7 - 7.5% in 2018-19**.
- There was a reversal of the declining trend of GDP growth in the second quarter of 2017-18, led by the industry sector.
- This could re-instate India as the world's fastest growing major economy.
- The Gross Value Added (GVA) at constant basic prices is expected to grow at 6.1 % in 2017-18, as against the 6.6% in 2016-17.
- Agriculture, industry and services sectors are expected to grow at 2.1, 4.4 and 8.3 percentages respectively in 2017-18.
- **Factors** - The growth projections were based on the various reform measures undertaken in the recent years.
- It includes GST, resolution of the Twin Balance Sheet (TBS) problem through IBC, recapitalization package for PSBs.
- Also, with liberalization of FDI and export uplift from the global recovery, the economy began to accelerate in the second half.



- **Comparative performance** - India's average GDP growth during last 3 years is around 4 percentage points higher than the global growth.
- India's growth averaged to 7.3% in 2014-15 to 2017-18 period.
- Lower inflation, improved current account balance and reduction in the fiscal deficit to GDP ratio are notable factors behind.
- The survey thus points out that India can be rated as among the best performing economies in the world.
- **Way Ahead** - The agenda for the next year to ensure a favourable growth trend has been charted out as:
 - stabilizing the GST
 - completing the TBS actions
 - reducing unviable banks and allowing greater private sector participation
 - privatizing Air India
 - staving off threats to macro-economic stability
- Over the medium term, three areas of policy focus are spelt out:
 - Employment - for the young and burgeoning workforce, especially women
 - Education - creating an educated and healthy labour force
 - Agriculture - raising farm productivity and strengthening agricultural resilience

Inflation

- **Headline** - The Consumer Price Index (CPI) based headline inflation averaged to **3.3%** during 2017-18.
- Many states have also witnessed a sharp fall in CPI inflation during 2017-18.
- **Trend** - This is notably the lowest in the last six financial years.
- It has been below 4% for twelve straight months, from November, 2016 to October, 2017.
- It indicates a gradual transition from a period of high and variable inflation in the last four years to more stable prices.
- **Food** - The CPI food inflation averaged around 1% during April-December in the current financial year.
- This has been possible due to Good agricultural production coupled with regular price monitoring by the Government.
- However, the recent rise in food inflation is mainly due to factors driving prices of vegetables and fruits.
- **Factors** - The decline in inflation was broad-based across major commodity groups except Housing and Fuel & Light.
- In rural areas food was the main driver of CPI inflation.
- In urban areas, housing sector contributed the most.



Monetary Management

- **Repo Rate** - Monetary policy during 2017-18 was conducted under the revised statutory framework that provided for the MPC.
- The Monetary Policy Committee (MPC) decided to reduce the policy Repo Rate by 25 basis points to **6%**, in August.
- Monetary policy has remained steady during 2017-18 with only one policy rate cut made in August.
- **Liquidity** - Post the demonetisation in November 2016, the re-monetisation process began from November, 2017.
- This set in a favourable base effect.
- Resultantly, the Y-o-Y growth of both Currency in Circulation and M0 turned sharply positive.

- This is higher than their respective growth rates in the previous year.
- Liquidity conditions largely remain in surplus mode.

Tax Collections

- The data on central finance is made available by The Controller General of Accounts (CGA).
- Accordingly, the growth in direct tax collections of the Centre was at 13.7% during April-November 2017.
- The indirect taxes growth rate was 18.3% during the same period.
- The States' share in taxes grew by 25.2%.
- This is much higher than the growth in net tax revenue (to Centre) at 12.6% and of gross tax revenue at 16.5 %.
- There is a 50% increase in the number of indirect tax payers.
- In all, the Gross Tax Collections during the first 8 months of 2017-18 period are reasonably on track.
- There was a slow pace in non-tax revenue but the robust progress in disinvestment compensated for this.

Banking Sector

- **NPA** - Banking sector performance, the PSBs in particular, continued to be subdued in the current financial year.
- The Gross Non-Performing Advances (GNPA) ratio of Scheduled Commercial Banks increased from 9.6% to 10.2% (Mar-Sep 2017).
- The new Insolvency and Bankruptcy Code mechanism is being used actively to resolve the NPA problem of the banking sector.
- **Credit** - Non Food Credit (NFC) grew at 8.85% in November 2017 as compared to 4.75% in November 2016.
- Non Food Credit refers to credit or loan provided other than to the FCI (Food Corporation of India).
- Bank credit lending to Services and Personal Loans (PL) segments continues to be the major contributor to overall NFC growth.
- The NBFC sector, as a whole, accounted for 17% of bank assets and 0.26% of bank deposits as on Sep 30, 2017.
- **Primary market** - The year 2017-18 (April-November) witnessed a steady increase in resource mobilisation in the primary market segment.
- The 10 year G-sec yield has risen sharply in the recent period.
- The stock markets also hit record highs this financial year.

External Sector

- India's external sector continued to be resilient and strong in 2017-18.
- **International Developments** - The global economy is expected to accelerate from 3.2% in 2016 to 3.6% in 2017 and 3.7% in 2018.
- It reflects an upward revision of the earlier projections by IMF.
- **BoP** - India's balance of payments situation continued to be favourable in the first half of 2017-18 as since 2013-14.
- **CAD** - This is despite some rise in the Current Account Deficit (CAD) in the first quarter (Q1).
- India's CAD stood at US \$7.2 billion in Q2 of 2017-18.
- This translates to **1.2%** of the GDP.
- It is a sharp decline from 2.5% of GDP in the preceding quarter.
- **Trade Deficit** - India's trade deficit (on custom basis) had widened.
- It stood at US\$ 74.5 billion in the first half of 2017-18.
- This is against a declining trend in CAD observed since 2014-15.
- In 2017-18 (April-December) trade deficit (on custom basis) shot up by nearly 46%.
- It now stands at **US\$ 114.9 billion**.
- The POL (petroleum, oil and lubricants) deficit and non- POL deficit has grown by nearly 27% and 65% respectively.
- **Composition of Trade** - 2017-18 (April-November) witnessed a mixed growth trend in terms of major sectors.
- Engineering goods, and petroleum crude and products registered a good export growth.
- Chemicals & related products and textiles & allied products witnessed a moderate growth.
- However, a negative growth was recorded by the gems and jewellery.



- **Prospects** - The prospects for India's External Sector in this and coming year look bright.
- The world trade is projected to grow at 4.2 % and 4% in 2017 and 2018 respectively, as against 2.4% in 2016.
- The trade of major partner countries is improving, and India's export growth is also picking up.
- However, rise in oil prices is emphasized as a huge challenge in the coming period, posing a downside risk to trade.
- However, this could also lead to higher inflow of remittances which have already started picking up.
- Supportive policies like the GST, logistics and trade facilitation policies could help balance the risks.

Foreign Direct Investment

- FDI equity inflows registered a 0.8% growth in total during 2017-18 (April-October).
- But FDI Equity Inflows to the **Services** sector grew by **15%**.
- This is mainly due to higher FDI in two sectors i.e. Telecommunications and Computer Software and Hardware.
- 25 sectors also including services activities and covering 100 areas of FDI policy have undergone reforms recently.
- At present, more than 90% of FDI inflows are through automatic route.
- The reforms have positively contributed to higher FDI inflow.

Trade Policy

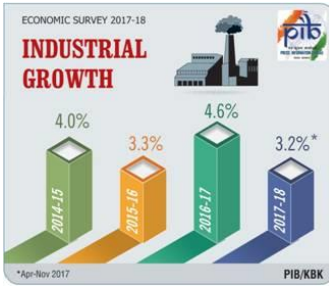
- Two important developments on the trade policy front during the year relate to:
 - mid-term review of Foreign Trade Policy (FTP)
 - multilateral negotiations of WTO in December 2017
- Besides, some developments on the trade logistics front and anti dumping measures are worth mentioning.
- **Foreign Exchange Reserves** - India's foreign exchange reserves reached **US\$ 409.4 billion** on end-December 2017.
- It is a growth by nearly 14% on a y-o-y basis from end December 2016.
- Major economies are running a current account deficit.
- Given this, India is **6th largest foreign exchange reserve holder** among all countries of the world.



- The import cover of India's foreign exchange reserves was 11.1 months at end-Sep 2017 (11.3 months at end March 2017).
- Import cover is the number of months of imports that could be supported by a country's international reserves.

Industrial Sector

- **IIP** - Index of Industrial Production (IIP) (base year 2011-12) indicates industrial output increase of 3.2 % (April-Nov 2017-18).
- This was a composite effect of robust growth in electricity generation and moderate growth in both mining and manufacturing sectors.
- The IIP registered a 25-month high growth of 8.4% with manufacturing growing at 10.2%.



- **Core Industries** - The 8 Core Infrastructure Supportive Industries had a cumulative growth of **3.9%** (Apr-Nov 2017-18).
- They eight core industries are:
 1. Coal
 2. Crude Oil
 3. Natural Gas
 4. Petroleum Refinery Products
 5. Fertilizers
 6. Steel
 7. Cement
 8. Electricity
- The production growth of Coal, Natural Gas, Refinery Products, Steel, Cement and Electricity was positive during this period.
- While the production of crude oil and fertilizers fell marginally.
- **Upgrade** - International ratings agency Moody's upgraded India's sovereign bond rating for first time in more than a decade.
- India ranked 100 out of 190 countries in Ease of Doing Business of the World Bank Report 2018.
- This is an increase of 30 positions over last year's rank.
- The upgrades are attributed to recent reform measures.
- **Reforms** - These include the GTS, IBC, and announcement of bank recapitalization.
- Make in India programme, Start-up India and Intellectual Rights Policy to boost industrial growth are also the reasons.
- Notable sectoral initiatives include anti-dumping duty, Minimum Import Price (MIP) on a number of items for the steel sector and PradhanMantri Mudra Yojana for the MSMEs.
- **Suggestions** - The survey calls for promoting inclusive employment-intensive industry.
- This, along with building resilient infrastructure are said to be vital factors for economic development.

Ease of Doing Business

- **Status** - India jumped 30 places to enter the top 100 for the first time in the World Bank's Ease of Doing Business Report, 2018.
- It leaped 53 and 33 spots in the taxation and insolvency indices, respectively; an outcome of taxation reforms and IBC, 2016.
- India also registered uptrends in protecting minority investors and obtaining credit, facilitation of electricity, etc.
- **Concerns** - High number of delays and pendency of economic cases in Supreme Court, Economic Tribunals and Tax department.
- This is reflecting in terms of stalled projects, mounting legal costs, contested tax revenues and reduced investment.
- These concerns hamper dispute resolution and contract enforcement.
- **Government Measures** - The Government has taken a number of actions to improve the contract enforcement regime including:
 - Scrapping of over 1,000 redundant legislations
 - Amending the Arbitration and Conciliation Act, 2015
 - Commercial Courts Commercial Divisions and Commercial Appellate Division of High Courts Act, 2015
 - Expanding the LokAdalat Programme
- The Judiciary has also expanded the National Judicial Data Grid (NJDG).
- This is near to ensuring that every High Court is digitized.
- **Suggestions** - The Survey suggests coordinated action between government and the judiciary.
- It calls for a Cooperative Separation of Powers between judiciary on one hand and executive/legislature on the other.
- This is a horizontal variant of the vertical cooperation between the Centre and States (Cooperative Federalism) in case of GST.
- The Survey also suggests to consider efforts for alleviating pendency in the lower judiciary as a performance-based incentive for States.

- Other suggestions in this regard include:
 1. expanding judicial capacity in lower courts and reducing existing burden on HCs and the SC
 2. limited appeals by tax department considering its low success rate
 3. increasing state expenditure on judiciary, especially for modernization and digitization
 4. focussing on internal specialization and efficiencies of SC by creating more subject-matter and stage-specific benches
 5. prioritizing stayed cases, and imposing stricter timelines by courts, especially when involving government infrastructure projects
 6. improving Courts Case Management and Court Automation Systems

Services Sector

- **State-wise** - The Survey gave a unique State-wise comparison of the performance of the Service sector in India.
- Out of the 32, in 15 states and UTs, the Services Sector is the dominant sector.
- It has contributed more than half of the Gross State Value Added (GSVA).
- However, there is wide variation in terms of share and growth of services GSVA in 2016-17.
- Services GSVA share ranges from over 80% in the case of Delhi and Chandigarh to around 31% in Sikkim.
- Services GSVA growth ranges from 14.5% as in Bihar to 7% in UP.
- **National** - The services sector continued to be the key driver of India's economic growth.
- It has a share of nearly **55%** in India's Gross Value Added (GVA).
- Evidently, it contributed almost 72.5 % of GVA growth in 2017-18.
- Some of the notable areas include Tourism, Information Technology-Business Process Management, Real Estate, R&D, and Space.
- **Exports** - India's services sector registered an export growth of 5.7% in 2016-17.
- India remained the 8th largest exporter in commercial services in the world in 2016.
- It comes with a share of 3.4% globally.
- This is double the share of India's merchandise exports in the world which is 1.7%.
- Both growths in services exports and services imports were robust.
- Resultantly, the Net services receipts rose by 14.6% during first half of 2017-18.
- The Net surplus in the services financed about 49% of India's merchandise deficit in this period.
- Increase in incentives under Services Exports from India Schemes (SEIS) contributed to services growth considerably.
- Enhanced global uncertainty, protectionism and stricter migration rules would be key challenges in shaping future services exports.

Infrastructure

- **Status** - The Economic Survey draws attention to the Global Infrastructure Outlook.
- It forecasts around **US\$ 4.5 trillion** worth of investments for India till 2040 to develop infrastructure.
- This is said to be essential for both economic growth and community wellbeing.
- India certainly lags behind many emerging economies in terms of providing qualitative transportation related infrastructure.
- **Roadways** - The primary agenda has been building new National Highways (NHs) and converting State Highways (SHs) into NHs.
- But, States with lower Per capita GSDP have low density of Other Public Work Department (OPWD) Road/District Road.
- Addressing this is essential to provide better access and thereby enhancing economic activities.
- Government has taken steps for streamlining of land acquisition and environment clearances to expedite delayed projects.
- The umbrella programme 'BharatmalaPariyojana' aims to achieve optimal resource allocation for holistic highway development.
- **Railways** - Railways showed an increase of over 5% in revenue- earning freight traffic carrying during 2017-18 (upto Sep 2017).
- The paces of commissioning Broad Gauge (BG) lines and completion of electrification have been accelerated.
- Over 400 kms of metro rail systems are operational across the country.
- And another 680 kms (appx.) are under construction in various cities across India.
- **Ports** - The port-led development along Indian coast line is undertaken under Sagarmala Programme.
- Almost 289 Projects worth over Rs. 2 Lakh Crore are under various stages of implementation and development.
- The cargo traffic handled at Major Ports has shown a marginal increase in the last year, valuing to around 500 million tonnes.
- **Telecommunication** - The Survey made mention of programmes like 'Bharat Net' and 'Digital India'.
- It expressed hope that these could convert India into a digital economy.
- Out of around 1200 million total subscribers, roughly 500 and 700 million connections were in the rural and urban areas respectively.

- **Civil Aviation** - Domestic airlines has showed a growth rate of 16% in 2017-18 (April - Sep 2017) over the previous year period.
- This is in terms of increase in passenger carrying.
- Initiatives like liberalization of air services, airport development and regional connectivity through scheme like UDAN are being taken up.
- **Power** - All-India installed power generation capacity has reached well over 3.3 lakh MW till Nov, 2017.
- The Ujjawal DISCOM Assurance Yojana (UDAY) has focused on enhancing the financial health of distribution companies.
- It has reduced their interest burden, cost of power and aggregated technical and commercial losses.
- Electrification in 15,183 villages has been completed.
- Saubhagya (PradhanMantriSahajBijliHarGharYojana), was launched in September 2017.
- This is to ensure electrification of all remaining willing households in the country in rural and urban areas.
- **Logistics** - The Indian logistics industry has grown at a compound annual growth rate (CAGR) of 7.8% during the last five years.
- The logistics sector provides employment to more than 22 million people.
- In World Bank's 2016 Logistics Performance Index India improved to 35th rank in 2016 from 54th in 2014.
- **Housing** - India's housing policies have been mostly focused on building more homes and on home ownership.
- The Economic Survey suggests a more holistic approach taking into account rentals and vacancy rates.
- In turn, this needs attention on contract enforcement, property rights and spatial distribution of housing supply vs. demand.

Agriculture

Feminisation

- **Feminisation** - The Economic Survey points to a trend of 'feminisation' of agriculture sector.
- This is a consequence of growing rural to urban migration by men.
- There is an increasing number of women in multiple roles as cultivators, entrepreneurs, and labourers.
- They make presence at all levels of the agricultural value chain.
- It includes production, pre-harvest, post-harvest processing, packaging, and marketing.
- **Significance** - Globally, empirical evidence suggests the decisive role of women in ensuring food security and preserving local agro-biodiversity.
- Rural women are responsible for the integrated management and use of diverse natural resources to meet the daily household needs.
- Importantly, the entitlements of women farmers will be the key to improve agriculture productivity.
- **Measures** - The following measures have been taken to ensure mainstreaming of women in agriculture sector:
 - earmarking at least 30% of the budget allocation for women beneficiaries in all on-going schemes and initiatives
 - initiating women centric activities to ensure benefits of various beneficiary-oriented programs/schemes reach them
 - focusing on women self-help groups to connect them to micro-credit, ensuring representation in decision-making bodies
 - declaring 15th October of every year as Women Farmer's Day, acknowledging the role of women in agriculture
- **Way ahead** - Women farmers' enhanced access to resources like land, seeds, water, credit, markets, technology and training is a necessity.
- India needs an 'inclusive transformative agricultural policy' aimed at gender-specific intervention.

Mechanisation

- **Trend** - The survey highlights that Indian Farmers were adapting to farm mechanization at a faster rate in comparison to recent past.
- Indian tractor industries have emerged as the largest in the world.
- They account for about 1/3rd of total global tractor production.
- The sale of tractors to a great extent reflects the level of mechanization.
- In 1960-61, about 93% farm power was coming from animate sources, which has reduced to about 10% in 2014-15.
- On the other hand, mechanical and electrical sources of power have increased from 7% to about 90% during the same period.
- **Need** - According to the World Bank estimates, half of the Indian population would be urban by the year 2050.
- It is estimated that the percentage of agricultural workers in total work force be around 25% by 2050.
- This is a huge drop from about 58 in 2001.
- Moreover, intensive involvement of labour in different farm operations makes the cost of production of many crops quite high.

- All these call for a more enhanced level of farm mechanization in India.
- **Suggestion** - Institutionalization through custom service or a rental model is suggested for availing high cost farm machinery.
- It could be adopted by private players or State or Central Organization in major production hubs.
- This is significant to reduce the cost of operation.

Land Holdings Consolidation

- There is predominance of small operational holding in Indian Agriculture.
- The survey thus stresses the need for land holdings consolidation.
- This is especially essential for reaping the full benefits of agricultural mechanization.

Interest Subvention

- A sum of around Rs.20, 000crore has been approved in 2017-18 to meet various obligations arising from interest subvention.
- This includes those provided to the farmers on short term crop loans and also loans on post-harvest storages.
- These credits meet an important input requirement, especially those of small and marginal farmers who are the major borrowers.
- The Survey adds that institutional credit helps delinking farmers from non-institutional sources of credit (at high rates of interest).
- Moreover, the crop insurance under PradhanMantriFasalBimaYojana (PMFBY) is being linked to availing of crop loans.
- Both of this would give farmers the combined benefit.

Market Reforms

- **e-Nam** - The electronic National Agriculture Market (e-NAM) was launched by Government on April, 2016.
- It aims at integrating the dispersed APMCs (Agricultural Produce Market Committee) through an electronic platform.
- It enables price discovery in a competitive manner to offer remunerative prices to farmers for their produce.
- **KCC** - The Survey stresses the need for small and marginal farmers to hold their Kisan Credit Card(KCC).
- This is to avail post-harvest loans by storing their produce in the accredited warehouses.
- Loans at interest subvention of 2% on such storages for a period of upto 6 months are offered.
- This is essential to supplement the market reforms and sell when the market is buoyant, and avoid distress sale.

Farmers' Income

- Economic Survey emphasizes the Government's goal to double farmers' income by 2022.
- The credit from institutional sources will complement all government initiatives in this regard.
- These include Soil Health Card, Input Management, Per Drop More Crop in PradhanMantriKrishiSinchaiYojana (PMKSY), PMFBY, e-Nam, etc.

Innovation

- Agricultural R&D is reiterated as the main source of innovation for sustaining agricultural productivity growth in the long-term.
- The actual expenditure of Department of Agricultural Research and Education/ICAR has increased during 2010-11 to 2017-18.
- The compound annual growth rate of expenditure has been 4.2% over the years.
- During the current year (2017-18), investment in Agriculture Research and Education protected new Agricultural innovation.
- Evidently, there was significant number of patent applications at Indian patent Office (IPO).
- Also, copyright and trademark applications filed by ICAR for products and processes.
- New Varieties/hybrids tolerant to biotic and abiotic stresses were released for cultivation in different agro-ecologies of the country.
- These have been developed for Cereals, Pulses, Oilseeds, commercial crops and Forage crops (for use as feed for animals).

Climate Change

- **Commitments** - Survey lays emphasis on India's commitment to environment and response to the threat of climate change.
- This is in accordance with the principles of equity and Common But Differentiated Responsibilities.
- Also, with the "Paris Pledge" to reduce the emission intensity of GDP by 33-35% over 2005 levels by the year 2030.
- **Measures** - The survey mentions the establishment of 8 Global Technology Watch Groups to keep track of the state-of-the-art technologies emerging globally.
- It is part of the National Mission on Strategic Knowledge for Climate Change (NMSKCC).
- This is one of the 8 missions under the National Action Plan on Climate Change.
- Also, the extension of Climate Change Action Programme launched in 2014 for the period 2017-18 to 2019-20.

- It also make note of the continuation of National Adaptation Fund on Climate Change till 31st March 2020 with additional financial allocation.

Sustainable Development

- **Urban India** - India's urban population is projected to grow to about 600 million by 2031.
- How cities, the centres of economic activity, deliver on varied basic services will determine the path and progress of sustainable development.
- The survey thus suggests Urban Local Bodies to generate resources through varied financial instruments.
- These include municipal bonds, PPPs and credit risk guarantees.
- **Renewable energy** - The Survey states access to sustainable, modern and affordable energy as the basis of achieving Sustainable Development Goals.
- The increasing share of renewables has tripled in the last 10 years.
- As on 30th November 2017, the share of renewable energy sources was 18% in the total installed capacity of electricity in the country.
- International Solar Alliance (ISA) entered into force in December, 2017.
- The coalition paves the way for future solar generation, storage and good technologies for each member country's individual needs.

Air Pollution

- **Delhi** - The Survey expresses concern over air pollution in Delhi with the onset of winter due to various factors.
- It ascribes four main reasons for Delhi's worsening air quality:
 - crop residue, biomass burning
 - vehicular emissions and redistributed road dust
 - industries, power plants
 - winter temperature inversion, humidity and absence of wind
- **Suggestion** - Coordination between agencies and Central and State, sustained civic engagement is recommended.
- Using satellite-based tools to detect fires, penalties on burning of agricultural waste, congestion pricing for vehicles are taken up.
- Improving public transport system and modernized bus fleets, phasing out old vehicles, accelerating BS-VI are other measures.
- Further, uses of technology to convert agricultural waste into usable fodder or bio-fuels, shift to non-paddy crops, straw management system are also suggested.
- Agricultural cooperatives and local bodies are called for increased roles in implementation.
- **Indoor pollution** - The survey mentions the adverse impact of indoor pollution on women and children.
- It accentuated the need for access to modern energy sources.
- **Measures** - PradhanMantriUjjwalaYojana was launched in 2016 to provide 80 million LPG connections by 2020 to BPL households.
- Ujjwala Plus complements the above, to address the cooking needs of deprived people not covered under the Socio-Economic Caste Census (SECC) 2011.
- The DeenDayalUpadhyaya Gram JyotiYojana was launched in 2015 to achieve 100% village electrification.

Social Expenditure

- **Expenditure on Social services** by the Centre and States as a proportion of GDP stands at **6.6%** in 2017-18 (BE).
- Components-based expenditure on social services in relation to GDP in 2017-18 (BE):
 - **Education - 2.7%**
 - **Health - 1.4%**
 - **Others - 2.6%**
- **Significance** - Priority to social infrastructure are stated as essentials to inclusive and sustainable growth.
- Bridging the gender gaps in education, skill development, employment earnings, reducing social inequalities find mention in the survey.
- These are emphasized as underlying goals of development strategy and to grow as a leading knowledge economy.

Education

- The Survey highlights India's commitment to achieve the Sustainable Development Goal (SDG- 4) for education.
- RTE Act, 2009 is an initiative towards the goal of universalization of elementary education.
- There is substantial improvement in the enrolment and completion rates of education in both primary and elementary school.
- There is also an increased percentage of schools which comply with Student Classroom Ratio (SCR) and Pupil Teacher Ratio (PTR) at the all India level.
- However, there are inter-state variations in adherence to SCR and PTR norms.
- Gender Parity Index (GPI) at the primary and secondary levels of school has shown improvement.

- This is attributed to the success of programmes like BetiPadhao, BetiBachao in addressing gender bias in access to education.

LABOUR REFORMS AND PARTICIPATION

- **Initiatives** - The Survey mentions the technology enabled transformative initiatives such as:
 - ShramSuvidha Portal (facilitate reporting of Inspections, and submission of Returns)
 - Ease of Compliance (to maintain registers under various Labour Laws/Rules)
 - Universal Account Number
 - National Career Service portal (linking all employment exchanges)
- These aim at reducing complexity in compliance and bringing transparency and accountability in labour laws enforcement.
- Maternity Benefit (Amendment) Act, 2017, offers women entitlement to enhanced maternity leave for a period of 6 months.
- Mahila E-Haat is launched to provide e-marketing to products made/manufactured/sold by women entrepreneurs/SHGs/NGOs.
- **Legislation** - The legislative reforms in Labour sector include rationalizing 38 Central Labour Acts into 4 labour codes.
- They are the Codes on Wages, Safety and Working Conditions, Industrial Relations, Social Security and Welfare.
- Creation of employment opportunities and providing sustainable livelihoods for those in informal economy are the prime objectives.
- **Gender Gap** - India's gender gap in labour force participation rate is more than 50 percentage points.
- This is relatively high among many developing countries.
- Women workers are the most disadvantaged in the labour market as they:
 - constitute a very high proportion among the low skilled informal worker category
 - engaged in low-productivity and low paying work
- The lower participation of women in economic activities adversely affects the growth potential of the economy.
- **Political participation of women**, in a country like India with around 49% of women in the population, has been low.
- As per the 'Women in Politics' 2017 report:
 - Lok Sabha - 11.8% women MPs
 - Rajya Sabha - 11% women MPs
- Moreover, only 9% of MLAs across the country are women.
- Notably, there are developing countries like Rwanda which has more than 60% women representatives in Parliament.
- NaiRoshni (leadership development programme for benefiting the women belonging to minority communities) is operational.
- Mahila Shakti Kendra scheme has been launched for leadership development and to address women's issues at village levels.
- **MGNREGA** - The Survey mentions that there has been highest ever budget allocation under MGNREGA during 2017-18.
- About 4.6 crore households were provided employment under the Mahatma Gandhi National Rural Employment Guarantee Act.
- Out of this, 54% were generated by women, 22% by Schedule Castes and 17% by Schedule Tribes, indicating the social reach.

Pink-Colour Economic Survey - Gender Issues

- **Pink** - The colour was chosen as a symbol of support for the growing movement to end violence against women.
- The survey lays special emphasis on Gender and Son meta-preference.
- Implicit in adopting pink is the assumption that it is the colour preferred by women.
- However, this in itself is argued as a gender stereotype.
- Various studies have proven wrong the notion that pink colour was the favoured colour of women.
- **Multi-dimensional Assessment** - Assessments have been made based on three specific dimensions of gender namely:
 - Agency (women's ability to make decisions on reproduction, spending on themselves and on their households, their own mobility and health).
 - Attitudes (attitudes about violence against women/wives, ideal number of daughters preferred relative to the ideal number of sons).
 - Outcomes ('son preference' measured by sex ratio of last child, female employment, choice of contraception, education level, age at marriage, age at first birth, physical or sexual violence experienced by women).
- In the last 10-15 years, India's performance improved on 14 out of 17 indicators of women's agency, attitudes, and outcomes.

- India lags on indicators such as employment, son preference and use of reversible contraception (contraception for an extended period without requiring user action).
- **Heterogeneity** - The North-Eastern states continue to be a model for the rest of the country.
- Hinterland states are lagging behind in aspects of gender equality.
- Worryingly, some southern states do less well than their development levels would suggest.
- **Son preference** - 'Son Meta-Preference' is where parents continue to have children until they have the desired number of sons.
- Meta-preference was measured using an indicator called sex ratio of the last child (SRLC).
- Certainly, SRLC was heavily skewed in favour of boys.
- This meta-preference leads to the notional category of 'unwanted' girls which is estimated at over 21 million.
- The adverse sex ratio of females to males has led to 63 million "missing" women (difference in actual and expected number of women).
- BetiBachao, BetiPadhao, SukanyaSamridhiYojana schemes, and mandatory maternity leave rules are all steps in addressing these shortfalls.

INTERNATIONAL AFFAIRS

Revival of German Coalition Talks

In News: Social Democrats have started coalition talks with Chancellor Angela Merkel's CDU for another term after initial reluctance.

- This comes as a relief as the thaw will see stop the rise of rightist elements.

Political Situation within Germany

- Germany has a proportional representation system and the recent elections didn't give a clear mandate to any single political grouping.
- While incumbent Chancellor Ms. Merkel's "Christian Democratic Union" emerged as the largest party, their vote share reduced by over 8%.
- **Collapse of Talks** - As they didn't have a majority on their own, they had to seek for alliances to form a government.
- But unlike the previous time when the "Social Democrats (SD)" supported the CDU government, this time, they had initially wanted to sit in the opposition.
- This was largely to focus on arresting the party's eroding vote base which has come down from 40% in 1998 to around 20% presently.
- Subsequently, the CDU went ahead into talks with "Greens Party", but an alliance couldn't materialise after months of negotiations.
- **Revival** - While political uncertainty loomed, the Social Democrats have currently decided to renegotiate an alliance with a minimum work agenda.
- Notably, the preliminary demands of the SPD regarding guaranteed pension level and child benefits have already been agreed upon by CDU in principle.
- But considering the ideological differences and the perception that the prolonged coalition has weakened SD might prove blockages in negotiations.

Under Currents

- **AFD factor** - The election saw the rightist AFD (Alternatives for Germany) emerge as a major player and the 3rd largest entity in the German parliament.
- AFD is a right-wing party that is anti-immigration and Euro-sceptic, which debuted in the recent election by vehement opposition to Ms. Merkel.
- Notably, SD's reconsideration for a coalition is also primarily to avoid another election, which might help in enhancing the popularity of the rightist AFD.
- **Leadership Challenge** - Some within the CDU have started questioning the leadership of Ms. Merkel, who has helmed continuously for 12 year now.
- But her presence is crucial for preserving the EU, which under threat from populist governments that have sprouted in many European nations.

Resolving the "Af-Pak Transit Trade Agreement"

Context: Afghanistan-Pakistan Transit Trade Agreement (APTTA) is a bilateral trade agreement that was signed in 2010 between Pakistan and Afghanistan.

- While this is currently under contention, Indian efforts could greatly influence the narrative about the agreement.

Contours of the Af-Pak Trade Ties

- "Afghanistan Transit Trade Agreement" was signed in 1965, which granted Afghanistan the right to import duty-free goods through Pakistani seaports.

- Notably, this did not offer Pakistan reciprocal rights to export goods to the then “Soviet Union or Central Asian Republics (after the fall of the USSR)”.
- In 2010, for greater regional connectivity between South Asia, Central Asia and the Middle East APTTA became a reality.
- While APTTA was believed to be key to jumpstart the Afghan economy, it has rather proved to be an unfavourable agreement.

Problems with APTTA

- Pakistan has lately closed its borders with Afghanistan multiple times, where it has used blockades for arm-twisting political circles in Afghanistan.
- This usually causes prices to spiral in Afghan markets as costlier or smuggled imports are what satiate demand.
- The primary grievance that Afghanistan has with the current APTTA is that it does not allow for bilateral trade with India.
- Afghan goods can unload at Wagah for Indian destinations, but cannot take Indian goods back to Afghanistan.
- This is because Pakistan contends that this would fuel a black market of Indian goods in Pakistan through back channels.

Counter Measures Taken

- **Crackdown** - Afghan’s government has been threatening to cut-off Pakistan’s transit route to Central Asia if Afghan is restricted to buy from India at Wagah.
- In October 2017, in an aggressive move that visibly surprised Pakistan, president Ghani banned Pakistani trucks from entering Afghanistan.
- Hence, Pakistani trucks will now have to offload their goods at the Af-Pak border, which is carried further by Afghani trucks.
- **Diversification** - Afghan has gone ahead with signing transit agreements with Tajikistan, Uzbekistan and Turkmenistan.
- Pakistan’s exports to Afghanistan dropped by over 27% over the past one year and India has currently become Afghan’s chief importer.
- Afghan’s trade with Iran has also grown by 25%, while the Pakistan’s bilateral trade has come down from \$3 billion in 2011 to about \$1 billion in 2017.
- Afghan also became a WTO member and spelt out its vision to integrate into the global economy based on ‘non-discriminatory’ and ‘rules-based’ order.

Way Forward

- APTTA is surely tilting the power balance, though the likelihood of India replacing Pakistan’s primacy for Afghanistan is constrained by geography.
- Afghanistan might soon be pulling the strings unilaterally in transit allowances due to Pakistan’s need to access central Asian resources in future.
- The shortest and most commercially feasible way is through Afghanistan, and a transit agreement on more mutually agreeable terms is hence crucial.

Acquisition deal between ONGC-HPCL

In News: Oil exploration company ONGC has made a share purchase agreement with oil refining and marketing company HPCL

Agreement About

- Oil and Natural Gas Corporation (ONGC), has entered into a share-purchase agreement for acquiring 51.11% equity in oil refining and marketing company, Hindustan Petroleum Corporation Limited (HPCL).
- The transaction will be completed by the end of January 2018, converting HPCL into a wholly-owned subsidiary of ONGC.
- This deal is different from ONGC acquiring an 80 per cent stake in one of the gas blocks of the Gujarat government-controlled GSPC in the Krishna-Godavari basin in December 2016.

Expected Outcomes

- A shortfall in non-tax revenues and indirect tax receipts has raised concerns over the government’s ability to meet its fiscal deficit target of 3.2 per cent of the gross domestic product in the current year.
- The deal has provided a boost to the government’s disinvestment proceeds by over Rs 369 billion, which will help the government meet its fiscal deficit numbers.
- It is also expected ONGC an integrated oil conglomerate, could absorb the volatility of crude oil prices and gain from the diversification of its cash flows to midstream and downstream sectors.

Concerns with the Deal

- ONGC and HPCL are two companies that are run on vastly different management styles, such that cultural synergies between the two companies need to be kept in mind.
- Earlier acquisition transactions of ONGC were not profitable, it also pertains to the credibility of the government’s fiscal consolidation exercise.
- Thus this deal could bail the government out from a difficult fiscal situation but cannot be a sustainable strategy for staying on the path of fiscal consolidation.

India-ASEAN Commemorative Summit - Delhi Declaration

In News: India-ASEAN Commemorative Summit was held recently, marking 25 years of India-ASEAN ties.

- The 'Delhi Declaration' was released after the summit.

Key Mentions

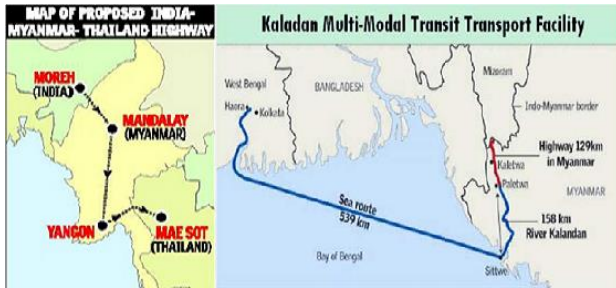
- **MARITIME** - ASEAN-India **cooperation in the maritime domain** was one of the key focus areas.
- Growth and development for the **Indo-Pacific region** was the prime objective behind this agenda.
- Shared vision for peace and prosperity through a **rules-based order for the oceans and seas** was emphasized.
- Respect for international law, notably **UNCLOS** (United Nations Convention on the Law of the Sea) was stressed as critical.
- The reference to **freedom of navigation** and UNCLOS came in the backdrop of China's position on the disputed South China Sea.
- Humanitarian and disaster relief, and security cooperation were also agreed as areas of cooperation.
- Support for the implementation of Declaration on the Conduct of the Parties in the **South China Sea (DOC)** was expressed.
- **TERRORISM** - Close cooperation among countries for combating terrorism, especially **cross border movement** of terrorists found mention.
- **ECONOMY** - The declaration called upon the states to intensify efforts towards finalising the Regional Comprehensive Economic Partnership.
- India proposed a framework to ASEAN for cooperation in the **blue economy** sector.
- It offered to set up **digital villages** in Cambodia, Laos, Myanmar and Vietnam.
- This would be by utilising the \$1 billion line of credit for connectivity.
- **Besides**, 2019 will be marked as the **year of India-ASEAN tourism** by both the sides.

India-ASEAN Partnership

- **Economic** - The demand for goods in Western economies is coming down.
- Also, there could be alterations in employment structures and even loss of jobs in the coming future.
- Digital technologies and the impending Fourth Industrial Revolution could largely drive these changes.
- These call for the south-east Asian region to look deeper within, to develop markets and increase trade for mutual benefits.
- **China** - Maritime rivalry with China is another challenge which calls for India to develop a strong regional cooperation.
- It includes its territorial claim on the resource-rich South China Sea, OBOR initiative and power struggle in the Indian Ocean.
- **Terrorism** - ASEAN countries have, in the past few years, been victims of terrorist attacks; Indonesia and Thailand in particular.
- The mention of cross-border terrorism also assumes significance with India's concerns in regards with Pakistan.
- Other non-traditional challenges such as human trafficking, cybercrime and piracy also demands regional cooperation.
- **Besides** these, India's cultural and trade ties with Southeast Asia go back 2,000 years.
- India and ASEAN also have a unique opportunity to reap the potential of geographic proximity.
- The presence of the **Indian diaspora** in almost all ASEAN nations is another factor requiring partnerships.
- Given all these, India-ASEAN partnership is more an economic and strategic necessity than a choice.

Way Forward

- Several commitments to trade and maritime security made in earlier summits remain unfulfilled.
- Some of them are:
 - Regional Comprehensive Economic Partnership
 - connectivity between ASEAN countries and India
 - India's connectivity through its Northeast to Myanmar and beyond
 - extension of the India-Myanmar-Thailand Trilateral Highway
 - Kaladan multimodal highway
 - Tamu-Kalay rail link to Myanmar
- Speeding up efforts on these fronts is essential to make 'Act East Policy' meaningful.



Regional Comprehensive Economic Partnership (RCEP)

- **East Asia Summit (EAS)** - was established in 2005 with 16 countries.
- Its primary objective of creating an “Asian Economic Community (AEC)”.
- Its founding members were the 10 countries of the ASEAN block and - Japan, South Korea, China, India, Australia, and New Zealand.
- EAS has since expanded with the joining of “Russia and USA” as members in 2011 and has also significantly broadened its working agenda.
- **RCEP** - ASEAN has “Free Trade Agreements (FTA)” individually with other founding members of EAS, but there is no comprehensive deal.
- Hence, for furthering the cause, RCEP was envisioned between the 16 founding members of the EAS.
- In 2012, the ASEAN and its six FTA partners launched negotiations for establishing RCEP as a means to achieve deeper economic integration.
- The RCEP was expected to be finalised, first in 2015 and then in 2017, but after 20 rounds, the negotiations are yet to be concluded.
- **Reasons for Delay** - India’s resistance to offer tariff concessions to the extent desired by other members are touted to be the main bottleneck.
- India has also been conservative about the time schedule for progressive tariff relaxation and has been proposing differential tariffs for different countries.
- Recently, India has shown willingness to drop some of its reservations in exchange for concessions in the form of certain services liberalisation.
- But this will only further slowdown negotiations as even at the intra-ASEAN level, trade liberalisation in services is limited to traditional sectors.
- Notably, only sectors like “transport, tourism and, to some extent, the financial services” are liberated across ASEAN.

External Compulsions

- Trans Pacific Partnership (TPP), lost considerable significance after the US pull out in early 2017.
- But recently, “Comprehensive and Progressive Agreement for TPP (CPTPP)” was successfully initiated (without USA), which has revived TPP negotiations.
- CPTPP membership is a subset of the “Asia-Pacific Economic Cooperation (APEC)”, of which India is not a member but some ASEAN members are.
- Notably, India’s application to join APEC is pending for long and future accession will also be hard as it requires the consensus of all members.
- In this backdrop, India needs to speed up RCEP negotiations for its own good as ASEAN members might otherwise prioritise CPTPP over RCEP.

Present State of ASEAN India Trade

- An FTA agreement in 2010 formalised business ties, but trade has increased from \$45 billion to just about \$71 in 8 years.
- Notably, ASEAN’s share in India’s total trade has been a constant 10-11% and while Indian exports have only marginally increase.
- Conversely, India’s share in ASEAN’s total trade is less than 3%.
- Also, the composition of the trade showed little increase in manufactured goods, with Palm oil import and meat product export dominating.
- Enhancing trade with Asean (increasing exports in particular), can happen only if India enhances its value chain integration with ASEAN.
- As RCEP has immense potential to facilitate this integration process, the current stalemate needs to be resolved on a priority basis.

Way Forward

- If India continues to remain inflexible in the negotiation process, other countries may choose to bring in more difficult provisions in the RCEP.
- Thrust for services liberalisation may open up demands for e-commerce and stricter intellectual property provisions, which will make India uncomfortable.
- Also, considering that ASEAN countries have the option of joining both RCEP and CPTPP, there is the inherent risk of de-prioritising Indian concerns.

- This beholds the risks of India losing opportunities for trade integration at both, the global and regional level.
- To overcome these challenges, India policymakers must show more flexibility and Indian industry has to be willing to face competition.

US Legislation on H1B Visa

In News: The Immigration Innovation (I-Squared) Act-2018 was introduced recently in the US Senate.

About Act

- The H1B is a common work visa granted to high-skilled foreigners to work at companies in the US.
- Its validity is three years and can be renewed for three more years.
- The present Act seeks to increase the annual H1B visa quota.

Key Provisions

- The Act advocates **increasing the number of base H1B visas** from 65,000 to 85,000 a year.
- This is to encourage the migration of talented engineers to the United States.
- It also puts forth the creation of a plan that allows the issuance of these visas based on market demand.
- The new Bill seeks to **prevent the H1B visa programme from being used for outsourcing jobs or undercutting American wages.**
- It allows the US government to raise as much as \$ 1 billion from increased visa fees.
- This is to fund science, technology, engineering, and mathematics (STEM) education as well as train workers in the country.
- The act provides work authorisation for spouses and dependent children of H-1B visa holders.
- It also establishes a grace period during which H-1B visa holders can change jobs without losing legal status.

Impact

- The top American IT companies would have the world's best and brightest to fill jobs in highly technical, specialised fields.
- Notably there is a shortage of American labour in this front.
- Logically, the major beneficiaries of this would be companies like Google, Microsoft, Facebook, etc.
- On the other hand, if the Bill was approved, it could be a big setback for Indian IT services companies.
- This is in the context of higher salary norm and the threat of increased brain drain.
- The minimum salary would be increased to \$100,000 and so top companies can attract talent.
- However, due to a higher minimum salary, the number of people going to the US from other smaller Indian firms would come down.
- Notably, many IT firms have once been the biggest beneficiaries of the H1B visa regime.
- But with stricter norms, dependency on such visas has consistently been reduced and local hiring in the US increased.
- In all, the measure would mean a trend away from offshoring and outsourcing to India.

Way Forward

- India's National Association of Software and Services Companies (Nasscom) has advocated a more liberal visa regime.
- The demand is to allow better labour movement from India to overcome the shortage of over one million engineers in the US.
- The fact is that US technology companies need IT talent but the US politics is so divided.
- The so-called I-Squared Act have been introduced in earlier sessions too; but unsuccessfully.
- However, with Trump's protectionist and anti-immigration focus, it is to be seen whether the Bill would be passed.

DEFENCE/SECURITY AFFAIRS

Need for a Defence Procurement Regulator

Context: A Parliamentary standing committee report has highlighted contradiction between actual defence procurements and budget estimates.

- To resolve such claims union Budget 2018 is expected to announce a regulatory body for defence procurement.

Defence Procurements in India

- Defence spending is classified under Non-plan expenditure.
- The respective funds will be allocated by the finance ministry through budget estimates.
- Allocated funds will be utilized by
 - Defence Research & Development Organisation (DRDO)
 - Ordinance factory board (OFB)
 - individual tri-defence forces under ministry of defence
- Defence procurements are typically conducted through a competitive two stage bidding process.
- It happens as per the guidelines contained in the Defence Procurement Procedure of India (DPP).
- Apart from this, defence procurement can also be made through inter-governmental agreements between friendly countries.

Concerns

- The report highlights inadequate budget allocations made by the Ministry of Finance (MoF).
- There are perpetual delays in capital acquisitions.
- Also, there is constant miscommunication between the Ministry of Defence (MoD) and the Ministry of Finance (MoF).
- Persistent failure of the defence ministry to utilise the allocated funds has also contributed to reduction in budget allocations.
- Armed forces are sadly under-equipped and procurement planning is grossly inadequate.
- It is concluded that India is not combat ready.

Regulator Role

- The shortfalls can be resolved better by an independent regulator for defence acquisitions.
- Implementation of the procurement policy can better be overseen.
- The regulator could check whether the policies are in line with the current and future requirements of the armed forces.
- A regulator could ensure proper acquisition decisions by MoD, MoF, armed forces and Cabinet Committee on Security.

U.S.A's Asian Foray and Indian Ambitions

Context: U.S. recently released its security and defence doctrines which laid emphasis on Indo-Pacific region.

About Doctrine

- The National Defence Strategy (NDS) and the National Security Strategy (NSS) showcases U.S's strategic priorities ahead.
- The documents show that US has shifted its focus from **Asia- Pacific** to **Indo-Pacific region**.
- It highlighted the changing geopolitical realities in the region such as
 - China's territorial and maritime advance in the Indian Ocean
 - Regional instability due to North Korea's nuclear tests
 - Prominence of Asian economies in international trade and commerce
- NDS also seeks to further expand defence cooperation with India on military purchases.
- Thus the document will serve as crucial policy indicator for India too.

Stakes for India

- **U.S. Factor** - U.S is increasingly expanding its influence - in the Indo-pacific region through alliances particularly after its withdrawal from TPP.
- It has built missile defence systems with Japan and South Korea to checkmate North Korea.
- It has formed 'Quad' partnership' to counter China's rise.
- **China Factor** - India's neighbourhood countries has seen china's investment in multiple infra-projects, which has given it a strategic presence.
- At the multilateral level, India is checkmated by China on the issues of terrorism and membership of the Nuclear Suppliers Group.
- China has invested significant capital to push ahead its ambitious Belt and Road Initiative (BRI).
- **Other Issues** - The region also faces security threats such as piracy and terrorism, which require a larger regional cooperative framework.
- Economic integration and connectivity are other aspects that the neighbourhood needs to focus on for a shared prosperity.
- Although, there is no other nation in contention, India needs to raise its stature as the chief deal maker in the region if it has to attain that converted status.
- In the backdrop, India needs to become a consensus builder in South Asia, if it has to emerge as the "net security provider" for the extended region.

ENVIRONMENTAL AFFAIRS

Protecting Sea Turtles

Context: The rising death toll of sea turtles call for integrated conservation measures to protect the protectors of marine ecosystem.

How diverse are sea turtles in India?

- There are five species of sea turtles in Indian waters:
 1. Leatherback
 2. Loggerhead
 3. Hawksbill
 4. Green
 5. Olive Ridley



- The turtle breeding season is usually between November and December.
- E.g. Olive Ridley nests between December and April along the Chennai-Kancheepuram coastline in Tamil Nadu.
- The eastern coastline is the feeding area for Olive Ridley, juvenile Hawksbills and Green turtles.
- Off-shore waters are also migratory routes for the Olive Ridley while moving towards beaches in Andhra Pradesh and Odisha.

Significance

- Sea turtles, especially the leatherback, keep **jellyfish** under control.
- This in turn helps maintain healthy **fish stocks** in the oceans.
- The Green turtle feeds on sea grass beds.
- Turtle populations could improve **seagrass ecosystem** health by removing seagrass biomass and preventing sediment formation.
- By cropping the grass, they provide a nursery for numerous species of fish, shellfish and crustaceans.
- The Hawksbill feeds on sponges in the coral reef ecosystem and opens up crevices for other marine life to live in.
- Turtles are also **transporters of nutrients and energy** to coastal areas.
- Unhatched eggs, eggshells and fluids help foster decomposers and create much needed **fertilizer** in sandy beaches.

Threats

- In India, sea turtles are protected under the Indian Wildlife Protection Act of 1972, under the Schedule I Part II.
- Despite this legal protection they face grave threats.
- Bycatch is one such example, which is the name given to ocean animals that are unintentionally caught by fishing gear.
- Notably, high number of dead turtles washing up ashore is recorded each year.
- Thousands of sea turtles are accidentally captured, injured or killed.
- The mechanised boats, trawl nets and gill nets operated and used by commercial fishermen are the major causes.
- The heavy toll of injuries and deaths occurs when turtles begin migrating.
- It could be to their nesting grounds on beaches or fishing areas that are their feeding grounds.

Protective Measures Working

- **Limits** - Under current regulations, mechanised trawl boats have operation limitations ranging from 5 to 8 kms in different states.
- They include Andhra Pradesh, Tamil Nadu and Odisha.

- There are also limitations on use of nets, especially those designed for bigger ones like ray fish, during the turtle breeding season.
- However, the enforcement and monitoring of these limits and regulations are weak.
- **TEDs** - Turtle Excluder Devices (TEDs) are two-dimensional net inserts with large escape openings for turtles.
- By law, trawlers meant for shrimp fishing are required to be fitted with TEDs, in India.
- If used correctly, TEDs have been found to reduce turtle captures by 90%; but the practice is very less.
- **Closed Seasons** - There are closed seasons for certain types of fishing vessels, at different times in different states.
- Trawlers and motorised craft with an engine output greater than 25 hp are banned during this period.
- Unfortunately, none of these closed seasons takes into account the sea turtle nesting season that falls between January and April.

Way Forward

- Declining turtle populations in general, signify the declining role of turtles in maintaining the health of the marine ecosystem.
- Integrated conservation measures are needed to rebuild their populations to healthy levels.
- Proper law enforcement and monitoring by the respective fisheries departments, marine police and Indian Coast Guard are essential.
- All trawl boats should be fitted with a vessel monitoring system traceable by the Coast Guard.
- Areas where sea turtles forage and congregate need to be identified.
- Additional seasonal closures need to be implemented within these areas.
- On-going work to have new fishing nets and gear that reduce the amount of bycatch while fishing should be encouraged further.

Environmental Performance Index, 2018

Context: India ranks 177 among 180 countries in the Environmental Performance Index 2018.

- A drop in the index from previous year calls for a relook at the country's environmental policy.

Environmental Performance Index

- EPI is a biennial report by Yale and Columbia Universities along with the World Economic Forum.
- The report ranks 180 countries on 24 performance indicators.
- It is spread across 10 categories covering environmental health and ecosystem vitality.
- Switzerland leads the world in sustainability, followed by France, Denmark, Malta and Sweden in the recent EPI.

India's Status

- India is among the bottom 5 countries on the index, at 177th place.
- This is a drop of 36 points from 141 in 2016.
- Emerging peer economies, Brazil and China, ranks 69 and 120, respectively.
- In the environmental health category, India is at the bottom of the list.
- And in terms of air quality it is placed third last.
- The overall drop is attributed to poor performance in the environment health policy and high pollution related deaths.
- Pollution from solid fuels, coal and crop residue burning, and emissions from motor vehicles are the major causes.
- Population growth, industrial production and automotive transportation continue to increasingly degrade the air quality.

Environmental Degradation

- Environmental degradation is beyond being seen as just a cost of development.
- **Health** - The report highlights air quality as the leading environmental threat to public health.
- In India, deaths attributed to ultra-fine PM2.5 pollutants have largely risen over the past decade.
- Air pollution is causing an estimated 1.4 million premature deaths in India.
- **Economy** - The above rate translates to a welfare loss equivalent to around 8% of India's GDP in 2013.
- In addition, the cost of lost labour productivity was nearly 0.8% of GDP.
- Even these estimates do not reflect a true picture of the impact.
- This is because the lack of scientific understanding of several other key ecological impacts limits the impact assessment.
- Sadly, the poor are affected disproportionately because of environmental degradation.

Measures Taken

- The government has set some ambitious targets for environmental protection in the recent years.
- It includes:
 - strict environmental standards for coal-fired power plants
 - target to implement Bharat Stage VI emission norms from April 1, 2020
 - efforts to produce and sell electric vehicles in the country by 2030

- revision of National Solar Mission, accelerating transition to renewable sources of power
- accordingly, revising the target for setting up solar capacity from 20 GW to 100 GW by 2021-22
- assurance to clean up highly polluted Ganga by 2018

Shortfalls

- Unfortunately, there appears to be a big gap between policy goals and action.
- India seems to be moving in the right direction on solar targets.
- However, balancing it with other goals is seriously lacking.
- Evidently, the promise of implementing strict power plant emission norms by December 2017 has been relaxed.
- Annual electronic waste collection target for electronics manufacturers was set at 30% of the products sold in the market.
- However, this has now been relaxed to 10%.
- The automobile industry has stated that full conversion to electric vehicles was realistically possible only by 2047.
- This is in contrast to the government's targets.
- CAG, in a recent report, highlighted the lag in developing an action plan and poor fund utilisation in the clean-up of the Ganga.

Way Forward

- The environmental costs of development should be duly recognised in addressing environmental problems.
- Transition to renewables, especially solar energy, should be accelerated by offering subsidies.
- On the other hand, the more polluting fuels should be priced higher.
- Strict environmental standards for coal plants should be put in place.
- Similarly, the transition to electric vehicle use should be aided by higher pricing of petrol and diesel.
- Existing environmental laws and regulations should be implemented properly with more political will.
- The country's poor environmental performance calls for taking forward the environmental targets more seriously.

Dangers of Fragmenting Tiger Populations

Context: A recent study has estimated that the probability of tiger extinction due to unplanned development is over 50%.

- This is mainly because of changes in future land use, increased fragmentation of its habitat and the inevitable loss in genetic diversity.

What Study Say?

- The study has used genetic data to capture the effects of changing landscapes and increasing isolation of tiger population.
- It highlighted the unplanned development would increase extinction probability to 56% and result in a 35% decrease in genetic variability.
- Like other large carnivores, tigers require vast swathes of jungle to hunt and thrive, and are particularly vulnerable to habitat fragmentation.

Challenges

- **Mining** - Increase in mined area and built-up area can lead to “15 time’s higher extinction probability” in small and medium protected forests.
- Notably, Mines and Minerals (Development and Regulation) Act was recently amended to expedited environmental clearances.
- Significantly, areas of large scale coal mining in central India (MP, Maharastra and Chattisgarh) lie adjacent to Tigar Reserves.
- **Roads** - A key threat to tiger populations is the increase in road traffic, which is estimated to grow at 13% per annum for the next two decades.
- The busy Mumbai-Kolkata NH-6 cuts through the Nagzira Tiger Reserve and Nawegaon National Park in Maharashtra and its widening has been proposed.
- There has already been an increase in agricultural activities and construction along the highway, making it harder for tigers to move across.

Way Forward

- **Restoring and protecting corridors** could reverse declining population.
- **Adding a buffer zone** around small populations was found to reduce the extinction probability by as much as 70%.
- There is already a lot of research on road ecology in the west and India needs to dig into them to evolve suitable solutions for tiger conservation.
- Notably, the study has suggested the **installation of mitigation structures** like under- and over-passes for wildlife to pass across roads.

Addressing Healthcare Issues

Context: India has a young and growing workforce, which lacks universal access of health care and financial assistance.

- Government need to take measures to address such health care concerns of the citizens.

Concerns in Indian Health Care

- India ranks 131st in the Human Development Index (HDI) and at 141st rank in global gender gap out of 144 countries in its health and survival index.
- Almost one-third of the Indians do not have access to primary healthcare facilities and about 63 million falls back into poverty due to spending on illnesses.
- Health insurance currently covers only about one-sixth of the population, there is also lack of focus on prevention of diseases.

Measures Taken by the Government

- The National Health Policy was introduced in 2017, to raise the level of public expenditure in the sector from the current 1.5% to 2.5% over three years.
- The policy also aims to provide free primary care and all public hospitals would ensure free drugs, diagnostics and emergency care services.
- Union government is working to set a target of reaching 50 in the HDI in a specified period.
- NITI Aayog is working on an innovative strategy of public-private partnerships in three non-communicable diseases of cardiology, pulmonology and oncology.
- State governments are being encouraged to set up joint ventures with private sector institutions to provide services at certain district hospitals.

Way Forward

- Non-communicable diseases, malnutrition and lack of timely and affordable healthcare are the key issues need to be addressed.
- For better healthcare infrastructure land should be identified for specialty hospitals in small towns under the Smart Cities and AMRUT schemes.
- Schemes by public sector insurance companies should be offered to low-income households at varying subsidies to provide assistance for illnesses.
- To address the healthcare workforce gap more teaching hospitals needs to be set up with seats for specialisation at the post-graduation level.
- The government must accord high priority to preventive and curative programmes and ensure universal access to medical facilities in the shortest time.

DI

- The Human Development Index (HDI) was developed by the United Nations as a metric to assess the social and economic development levels of countries.
- Four principal areas of examination are used to rank countries:
 1. Mean years of schooling.
 2. Expected years of schooling.
 3. Life expectancy at birth.
 4. Gross national income per capita.
- This index makes it possible to follow changes in development levels over time and to compare the development levels of different countries.

Rotavac: First India-designed vaccine to pass WHO

- Rotavac became first indigenously developed vaccine from India to be pre-qualified by World Health Organisation (WHO).
- It means that vaccine can be so internationally to several countries in South America and Africa.
- So far, several vaccines from India have been pre-qualified by WHO, but Rotavac is first vaccine entirely developed locally to get this status in safety and efficacy.
- Rotavac conceived and developed by the Hyderabad-based Bharat Biotech Limited.
- It protects against childhood diarrhea caused by the rotavirus.
- It was developed under the joint collaboration between India and United States area of medical research.
- It was developed under public-private partnership (PPP) model that involve Ministry of Science and Technology, institutions of the US Government and NGOs in India supported by Bill and Melinda Gates Foundation.
- The vaccine was built on strain of the virus isolated at the All India Institute of Medical Sciences (AIIMS), New Delhi over 30 years ago.
- It has been included India's national immunization programmer.
- The vaccine was tested in field for over a year, have not shown any negative effect.

Significance

- This recognition signifies credible industrial, scientific and regulatory process in place to develop vaccines in India.

- It paves the way for health and humanitarian organizations such as UNICEF, GAVI and Pan-American Health Organization to procure Rotavac for public health vaccination programme across the world.
- It is a most common causative agent of moderate-to-severe diarrhoea (MSD among infants below 11 months age group in India.
- It spreads from person to person due to bacterial and parasiting agents that are primarily transmitted through contaminated food or water.
- It is responsible for estimated 36% hospitalizations for childhood diarrhoea around world and for estimate 200,000 deaths in low- and middle-income countries.
- In India, diarrhoea caused by rotavirus, kills nearly 80 thousand children under age of 5 years an up to 10 lakh hospitalizations each year.

Chinese Scientists for first time Successfully Clone Monkeys

- Chinese scientists for first time have successfully clone two identical long-tailed macaques (monkeys), name ZhongZhong and HuaHua using same technique th produced Dolly sheep two decades ago.
- The development makes them world's first primates – the order of mammals that includes monkeys, apes and humans – to be clone from non-embryonic cell.

Key Facts

- These two identical long-tailed macaques were cloned using process called somatic cell nuclear transfer (SCNT), which involves transferring the nucleus of cell, which includes its DNA, into egg whose nucleus is removed.
- Since cloned Dolly sheep was born in Scotland in 1996 using SCNT, scientist have successfully used this technique to clone more than 20 other specie including cows, pigs, dogs, rabbits, rats and mice.
- Similar work in primate earlier, had always failed, leading some scientists to wonder if primates were resistant.
- Chinese Scientists were successful to clone macaques using modulators t switch on or off certain genes that were inhibiting embryo development.
- The technique worked only when nuclei were transferred from foetal cells, rather than adult ones, as was the case with Dolly.
- In all, it took 127 eggs to produce two live macaque births.

Significance

- Genetically identical animals are useful in research because confounding factors caused by genetic variability in non-cloned animals can complicate experiments.
- This development breaks technical barrier for the cloning primate species, including humans.
- It will make possible to study diseases populations of genetically uniform monkey and test new drugs for a range of diseases before clinical use.

Concerns

- The research underscores important role at the cutting-edge of bioscience where scientists have at times pushed ethical boundaries but calls for debate on what should or should not be acceptable practice in primate cloning.

Somatic Cell Nuclear Transfer (SCNT)

- SCNT is a laboratory technique for creating an ovum with donor nucleus.
- In it, nucleus containing the organism's DNA of somatic cell (a body cell other than sperm or egg cell) is removed and rest of cell discarded.
- The nucleus of somatic cell is then inserted into enucleated egg cell which reprograms somatic cell nucleus by the host cell.
- The egg, now containing nucleus of somatic cell, is stimulated with a shock and will begin to divide forming blastocyst (an early stage embryo with about 100 cells) with almost identical DNA to original organism.
- It can be used in embryonic stem cell research, regenerative medicine i.e. "therapeutic cloning." It can also be used as first step in process of reproductive cloning

TECHNOLOGICAL AFFAIRS

SARAS PT1N

- Upgraded indigenous transport aircraft makes successful maiden flight.
- SARAS PT1N, the new upgraded version of indigenous transport aircraft SARAS developed by Nation Aeronautics Laboratory (NAL) successfully made in maiden flight in Bengaluru, Karnataka.
- The aircraft took off from HAL airport, Bengaluru an flew for about 40 minutes at the maximum height of 8500 feet at the speed of 145 knots.
- The primary objective of the test was to evaluate system performance that w be collected in about 20 flights.
- The data collected from this shall be used to freeze the design of production version aircraft.
- SARAS PT1N SARAS PT1N is a 14-seater passenger aircraft designed and developed by CSIR-NAL, a frontline aerospace research laboratory.
- The production version aircraft will have 19-seat capacity.

- The indigenous aircraft development is seen as culmination of efforts of tea CSIR-NAL, IAF-ASTE, Centre for Military Airworthiness and Certification (CEMILAC), HAL and Directorate General of Aeronautical Quality Assurance (DGAQA).

Background

- The aircraft programme is named after Indian crane Saras.
- It was first conceptualized in the 1990s to establish short-haul civil aviation market.
- The original design of the plane included maximum take-off weight of 6,100kg and a maximum payload of 1,232kg.
- The first prototype of the plane had made its first flight in May 2004.
- SARA PT1N is upgraded version of plane, after second prototype of SARAS that has crashed during test flight killing all three crew members on board in March 2009.

Mihir: High Performance Computing Facility

- Ministry of Earth Science (MoES) has inaugurated high performance computer system (HPC) or supercomputer Mihir (meaning sun) at National Centre for Medium Range Weather Forecasting (NCMRWF), Noida.

Mihir

- Mihir (meaning 'Sun'), a High Performance Computer (HPC) System has been installed at the National Centre for Medium Range Weather Forecasting (NCMRWF).
- This HPC facility will be India's largest HPC facility in terms of peak capacity and performance.
- The new HPC facility is expected to improve the following services:
 1. Weather forecasts for predicting extreme weather events.
 2. High resolution seasonal/extended range forecasts of active/break spells of Monsoon.
 3. Very high resolution prediction of cyclones with more accuracy and lead time.
 4. Ocean state forecasts like marine water quality forecasts and Tsunami forecasts.
 5. Air quality forecasts for various cities.
- The HPC will provide facility for improving weather/climate forecasts.
- It is country's largest HPC facility in terms of peak capacity and performance.
- It also propelled India's ranking to Top 30 in the list of HPC facilities in world.

Key Facts

- With this, MoES has acquired HPC facility total of 6.8 Peta Flops (PF) which has been installed at two of its constituent units:
 - 4.0 PF HPC facility name 'Pratyush' at Indian Institute of Tropical Meteorology (IITM), Pune.
 - 2 Peta Flops facility at NCMRWF, Noida.
- It also improved India rank to 4th position after Japan, UK and US in terms of dedicated HPC resources for weather/climate forecasts.
- Mihir HPC facility will improve following services Weather forecasts at block level over India which can predict extreme weather events.
- High resolution seasonal and extended range forecasts of active and break spells of Monsoon.
- Very high resolution coupled models for prediction of cyclones with more accuracy and lead time.
- Ocean state forecasts including marine water quality forecasts at have high resolution.
- Tsunami forecasts with greater lead time.
- Air quality forecasts for various cities.
- Climate projections at very high resolution.

Significance of new HPC facility

- Help in meeting operational requirements of MoES and also support research and development activities on various problems related to Earth Science.
- Help MoES in developing several services for societal benefits catering by building state-of-the-art systems for multi-hazard risk reduction from floods/droughts, cyclones, heat/cold waves, earthquakes and tsunamis.

MISCELLANEOUS

INSHORT

Jain MahaKumbh

- It is a ritual celebrated once in 12 years for Lord Bahubali in Shravanabelagola, Karnataka, (will be celebrated from Feb 17th to 26th 2018).
- 'Mahamastakabhisheka' (head atonement) will take place for the 57 ft-high statue of Lord Bahubali.
- During this celebration devotees bathe the magnificent statue atop the Vindhyagiri hillock in accordance with Jaina tradition.
- Lord Bahubali is the son of the first Jain tirthankara.
- The statue was carved under the order of Chamundaraya, who was the Ganga Dynasty's minister and commander in 981 AD.

Shram Awards

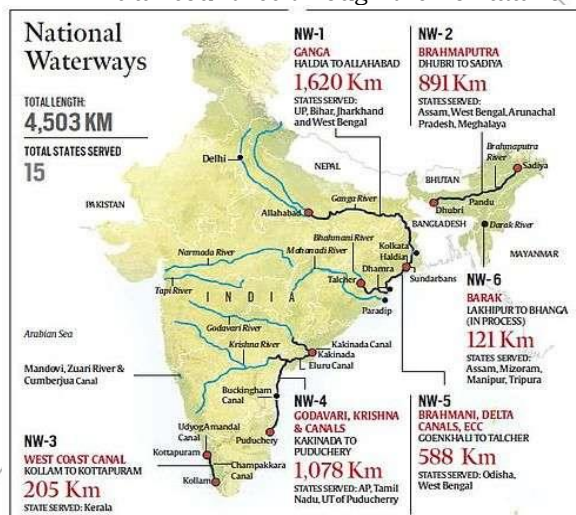
- Union Government has announced the Prime Minister's Shram Awards for the year 2016.
- Ministry of Labour and Employment announces Prime Minister's Shram Award every year.
- These are given in four different categories to the workers in the PSUs, Departmental Undertakings of the Central and State Governments and to Private Sector units employing 500 or more workers.
- It is in recognition of the distinguished performance and for outstanding contribution in the field of productivity.

JalMargVikas Project (JMVP)

- JMVP was announced by union government to enable commercial navigation of at least 1500 tonne vessels on the Ganga River.
- The project envisages the development of waterway between Allahabad and Haldia (NW-1) on the Ganga River.
- It includes the development of fairway, multi-modal terminals, strengthening of open river navigation technique, conservancy works, and modern river information system.
- The project is funded by the World Bank.
- It is carried out by the Union Ministries of Road Transport & Highways, Shipping and Water Resources, River Development & Ganga Rejuvenation.

NW-1

- The National Waterway -1 or Ganga-Bhagirathi-Hooghly river system runs from Allahabad to Haldia which is about 1,620 km (longest in India).
- It passes through West Bengal, Jharkhand, Bihar and Uttar Pradesh and serves major cities and their industrial hinterlands.
- It is an important constituent of the Eastern Transport Corridor of India.
- This corridor along with NH-2 connects the National Capital Region (NCR) with the eastern and north-eastern states.
- It will also be an important link to Bangladesh, Myanmar, Thailand, Nepal and other east and south-east Asian countries through the Kolkata Port.



Saksham

- Saksham is a capacity building program under the Ministry of Rural development.
- It is a training module which focuses on the use of Remote Sensing and GIS tools for project planning and monitoring components like watershed, groundwater and geohydrology.
- It is not to be confused with project Saksham of the Railway Ministry.

Project Saksham

- It is the nation's largest time-bound "Upskilling" exercise for its employees to boost their efficiency.

- Under Project Saksham, all employees in each zone will be put through a week's training in skills and knowledge relevant to their work area.

Geo-MGNREGA

- Ministry of rural development has implemented Geo-MGNREGA.
- It is a GIS based solution to visualize, analyse and explore MGNREGS asset related data.
- Under this program, geo-tagging is being carried out in three stages viz. Before start of the work, During the work and On completion of work.

SECURE

- The Ministry of rural development has adopted the Software for Estimate Calculation Using Rural Rates for Employment (SECURE).
- It aims to improve quality of works through detailing of technical specifications, tasks and workflows.
- All estimates under MGNREGS will be generated with the use of SECURE (software) from the Programme's Management Information System with effect from 1st April, 2018.

Zojila Tunnel Project

- An MoU was signed between National Highways and Infrastructure Development Corporation (NHIDCL) and M/S IL&FS Transportation Networks Ltd for construction of the Zojila Tunnel in Jammu & Kashmir
- The main objective of the tunnel is to provide all weather connectivity to strategically important Leh region in Jammu and Kashmir
- Zoji La is a high mountain pass in Jammu and Kashmir, India,
- The pass is located on the Indian National Highway 1D between Srinagar and Leh in the western section of the Himalayan mountain range.
- Zojila tunnel will be the longest bi-directional tunnel in Asia.

Sea Turtles in India

- There are five species of seas turtles in Indian waters — **Leatherback, Loggerhead, Hawksbill, Green and Olive Ridley.**
- IUCN Status of these turtles are
 1. Hawksbill- Critically endangered
 2. Green turtle- Endangered
 3. Leatherback- Vulnerable
 4. Loggerhead- Vulnerable
 5. Olive Ridley- Vulnerable
- Mostly these turtles are found in the eastern coast of the Country.
- Often turtle are confused with tortoises. The major difference between the tortoise and sea turtles is that tortoises dwell on land, while turtles live in the water for some or nearly all of the time.

Mount Mayon

- It is an active **stratovolcano** in the Philippines region
- Stratovolcano, also known as a composite volcano, is a conical volcano built up by many layers of hardened lava, tephra, pumice, and volcanic ash
- The volcano is the centre piece of the ALBAY biosphere reserve and Natural Park on its own.
- Mount Mayon lies in Pacific ring of fire region, major area in the basin of the Pacific Ocean where a large number of earthquakes and volcanic eruptions occur

Mission Innovation

- The initiative was launched in the Cop21 UNFCCC in 2015
- India is member nation of the global initiative
- The objectives of initiative are,
 1. To accelerate public and private clean energy innovation
 2. To address climate change,
 3. Make clean energy affordable to consumers, and
 4. Create green jobs and commercial opportunities
- It will help in achieving India's INDC of increasing the share of clean and renewable energy in the energy basket.

Reservations for differently abled

- Recently union government has opened government jobs to differently abled with learning disabilities, Down syndrome, intellectual disabilities, autism and victims of acid attacks.
- The department of personnel and training (DoPT) has framed rules for reserving, advertising and filling up of government vacancies across all ministries to follow them from 2018.
- The employment rules also specify a procedure to exempt a cadre or establishment from reservation for differently abled.

Institutions of Eminence

- To improve performance of Indian higher educational institutions in the world rankings union government has proposed “Institutions of Eminence”.
- Educational institutes which wish to become a part of Institutes of Eminence need to submit a proposal providing their tangible action plan and milestones that they would work to achieve in a period of 5 years as well as 15 years.
- The Institution of Eminence will be ranked under National Institutional Ranking Framework and International Ranking index of repute.

National Institutional Ranking Framework

- The National Institutional Ranking Framework (NIRF) was approved by the MHRD and launched in 2015.
- This framework outlines a methodology to rank institutions across the country.
- The methodology involves various parameters for ranking universities and institutions such as
 1. Teaching, Learning and Resources.
 2. Research and Professional Practices.
 3. Graduation Outcomes.
 4. Outreach and Inclusivity.
 5. Perception.

MaitreyiYatra

- It is an exclusive student exchange programme for J&K organized by Ministry of Human Resource development.
- It provides a good opportunity for the youth of J&K to be acquainted with culture, language and development story of different parts of the country.

Toll free number to Report Accidents

- National Highways Authority of India (NHAI) is about to launch 1033 as national toll-free number to report road accidents on national highways (NHs).
- The aim is to provide quick help, rescue any accident victim, and take him/her to the nearest hospital.
- This number can also be used to lodge grievances regarding highway maintenance issues.

Global Centre for Cyber Security

- Recently the World Economic Forum (WEF) has announced a new Global Centre for Cybersecurity.
- It will be an autonomous organization under WEF, based in Geneva, Switzerland.
- It will serve as a laboratory and early-warning think tank for future cybersecurity scenarios.

Delhi Declaration

- It was adopted at the recently concluded ASEAN-India Commemorative Summit.
- ASEAN-India Commemorative Summit was held to celebrate the 25th anniversary of the establishment of sectorial dialogue between two sides.
- The declaration urges countries to strengthen cooperation and collaboration in combating transnational crimes, including people smuggling, trafficking in persons, illicit drug trafficking, cybercrime.

Assumption Island - Seychelles

- Assumption Island is one of the 115 islands constituting Seychelles archipelago.
- India signed a pact to develop Assumption Island, during PM Modi’s visit to Seychelles in 2015.
- Ironing out the earlier differences, India has now signed a revised agreement with Seychelles.
- Assumption Island is leased to India for the operation of a naval base and air strip by the Indian navy.
- The agreement will enable India to help Seychelles build military infrastructure for the Seychelles People’s Defence Forces.
- Seychelles has said it would “suspend” the use of military facilities on Assumption Island in case if India is at war.
- This is because it is not a military base.
- Also, other “international partners” can also use the facilities being developed by India on the island.
- It is being financed entirely by India; but Seychelles retains full ownership of the facilities and sovereign rights over the island.



Human Papilloma Virus (HPV)

- The National Technical Advisory Group on Immunization (NTAGI) has recommended the introduction of HPV vaccine in the UIP.
- NTAGI is an advisory body that recommends vaccines for India's Universal Immunization Programme (UIP).
- Human Papilloma Virus (HPV) is a group of more than 150 viruses. It is usually harmless and goes away by itself.
- However, some types cause papilloma or warts in parts of the body.
- HPV spreads by skin-to-skin contact and is the most common sexually transmitted infection.
- HPV is commonly associated with cervical cancer.
- India has one of the world's highest burdens of HPV-related cancer and around 67,000 women die from this disease each year.
- HPV vaccines offered by private firms face clinical trial issues in India on concerns of side-effects; Supreme Court is yet to decide.

Objectionable Content

- The Ministry of Electronics and IT has highlighted that around 1300 social media URLs were blocked or removed in the last year.
- These were based on the recommendation of a government committee to deal with "objectionable content".
- The Information Technology (IT) Act 2000 and Indian Penal Code provides for dealing with "objectionable content" posted online.
- Blocking is a sovereign power that is given to the government by virtue of Section 69A of the IT Act.
- There are concerns with the parameters on deciding a particular content as 'inappropriate' or 'objectionable'.

Pulse Polio Immunisation (PPI)

- As part of the National Immunisation Day observed on 28 January, PPI programme for 2018 was launched.
- More than 17 crore children of less than 5 years across the country will be given polio drops.
- The polio virus causes paralysis, known as an acute flaccid paralysis (AFP).
- This is characterised by sudden muscle weakness, and fever in one or more limbs.
- India reported its last polio case in 2011 and is also declared polio-free by WHO in 2014.
- However, the immunisation drive continues as polio virus is still circulating in other parts of the world.
- The injectable Inactivated Polio Vaccine (IPV) has also been introduced recently into the Universal Immunisation Programme.
- IPV is an injectable form of polio vaccine administered alone or in combination with other vaccines including the OPV (oral polio vaccine).

Universal Immunization Programme

- Universal Immunization Programme was launched in 1985.
- The program now consists of vaccination for 12 diseases:
 1. tuberculosis
 2. diphtheria
 3. pertussis (whooping cough)
 4. tetanus
 5. poliomyelitis
 6. measles
 7. Hepatitis B
 8. diarrhoea
 9. Japanese Encephalitis
 10. Rubella
 11. Pneumonia (Haemophilus Influenza Type B)
 12. Pneumococcal diseases (Pneumococcal Pneumonia and Meningitis)
- The Indradhanush mission, launched in 2014, is to fast track the universal immunization programme.
- The mission aims at increasing the immunisation coverage to 90% by 2018.

Indian Cyber Crime Coordination Centre (I4C)

- The Union Home Ministry is planning to set up the Indian Cyber Crime Coordination Centre in Delhi.
- It would deal with cyber-crimes such as financial frauds, circulation of communal and pornographic contents.
- The centre would maintain a list of suspects and the leads generated during investigations in cyber-crime cases.
 - This would be shared with law enforcement agencies through a "secured internal network".
 - The ministry has asked states to establish a similar mechanism in every district.
 - The ministry has also released a sum of Rs 83 crore in this regard.
 - This would fund the setting up of a cyber-forensic training laboratory-cum-training centre for police officials in each state.

StreeSwabhiman

- StreeSwabhiman is an initiative under Ministry of Electronics and Information Technology for women's health and hygiene.
- It aims to create a sustainable model for providing adolescent girls and women an access to affordable sanitary products by leveraging Common Service Centres (CSCs) established under digital India.
- The initiative is driven by awareness and personalised outreach by women entrepreneurs who produce and market sanitary napkins themselves.

ITEWS

- Indian Tsunami Early Warning System (ITEWS) is established by Indian National Centre for Ocean Information Services (INCOIS), under ministry of earth sciences.
- The ITEWS comprises a real-time network of seismic stations, tsunami buoys and tide gauges to detect tsunami genic earthquakes and to monitor tsunamis.
- It detects globally occurring earthquakes of 5 magnitude and above within 5-10 minutes of the event.
- The system is capable of displaying ticket messages related to tsunami events and triggering of a built-in siren alert system audible for up to 1 km.

AEFI

- Union Health Ministry has released a report on deaths due to Adverse Events Following Immunisation (AEFI).
- It is estimated that for every 1,00,000 children immunised, there would be at least 10 serious adverse events (including deaths and hospitalisation).
- India's AEFI data is compiled by district officers, and the Union Health Ministry's national AEFI committee follows up on reports, sifting out deaths that may have a link with vaccine administration.
- The WHO has recommended the use of performance indicators for AEFI functionality assessment.

Project Sunrise

- Project Sunrise was launched in 2015, by union government to tackle the increasing HIV prevalence in the North-Eastern states.
- It aims to provide treatment and care facilities free of cost for people living with HIV/AIDS and create more awareness about the disease in these N-E states.
- The project is a five-year programme (2015-2020) aimed at complementing the ongoing National AIDS Control Programme (NACP).
- The project has been sponsored by US based Centre for Disease Control.

Prompt Corrective action (PCA)

- Union Finance Ministry as a part of reforming process about to initiate a performance review for public sector banks.
- These reforms will be under the RBI's Prompt Corrective Action (PCA).
- The PCA is invoked when certain risk thresholds are breached, there are three risk thresholds which are based on
 1. Asset quality.
 2. Profitability.
 3. Capital and the like.
- The third threshold is the maximum tolerance limit, which has set NPA at over 12% and negative return on assets for four consecutive years.
- Under PCA there are two type of sanctions restrictions on dividend, branch expansion and directors compensation are of mandatory type and curbs on lending and deposit are discretionary type.

Intellectual property Index

- The index is published by US Chamber of Commerce.
- It evaluates the intellectual property (IP) environment and grades countries on patents, trademarks, copyright, trade secrets, enforcement, and international treaties.
- The Index is released for 50 countries with 40 indicators, primarily focusing intellectual property.

Super Blood Blue Moon

- "Super Blood Blue Moon" is a rare cosmic event that combines an extra big Super moon, a Blue moon and a total lunar eclipse.
- **Super moon** – It occur when the full moon coincides with the Moon's closest orbit point (perigee) to Earth.
- During a super moon, the moon appears 14% larger and 30% brighter.
- The farthest distance between the moon and the Earth is termed 'apogee', while the perigee is the nearest point.
- **Lunar Eclipse** – It occurs when the Sun, the Earth and the Moon are so aligned that the full moon passes through the shadow of Earth.
- The moon gliding into Earth's shadow will gradually turn in to orange or red.
- This is because the sunlight passing through the Earth's atmosphere break down and red part gets scattered by the atmosphere and falls on the Moon's surface.
- For this reason, a totally eclipsed moon is called a "**Blood Moon**".
- **Blue Moon** – It refers to the second full moon (or second lunar eclipse) in a month.

- The Moon does not turn blue but historically the second full Moon of an English calendar month is termed as a Blue Moon.
- Typically, it happens every two years and eight months.
- The world is going to witness this event on Jan 31st in parts of western North America, Asia, the Middle East, Russia and Australia.

VINBAX - 2018

- VINBAX is the military exercise between armies of India and Vietnam.
- It is the first ever such exercise boosting defence ties between the two countries.
- It is going to be held in Jabalpur in Madhya Pradesh.
- The joint exercise has been especially designed to enable and train officers from Vietnam in United Nations Peace Keeping Operations.

India – Vietnam relations

- India and Vietnam had signed a protocol on defence cooperation in 1994.
- The partnership was thereafter elevated to strategic level in 2007.
- A pact on boosting bilateral defence cooperation was signed in 2009.
- The strategic partnership was elevated to a **Comprehensive Strategic Partnership** in September 2016.

Meghadootam

- Meghadootam (meaning cloud messenger) is a lyric love poem composed by Kalidasa about the 5th century AD.
- The poem recounts the expression of love by Yaksha to his wife at Alaka, Mt. Kailash through the cloud as a messenger.
- Most of the poem consists of a description of the landmarks, cities, and sights on the cloud's journey to Alaka.
- Chhattisgarh state artistes performing dance based on Meghadootam in Republic day won prize in best tableau category.

Kalidasa

- Kalidasa is a great Sanskrit poet who lived in the court of Chandragupta II around 4th-5th century AD.
- He wrote plays, poems such as
 - 3 plays - Malavikagnimitram, Abhijnanasakuntalam, vikramaorvasiyam
 - 2 epic poems - Raghuvamsa, Kumarasambhava
 - 2 minor poems – Ritusamhara, Meghadootam

Asia's largest drip irrigation project

- Ramthalarola project in Karnataka is the Asia's largest drip irrigation project implemented with the help of technology from Israel firm.
- As a part of this drip irrigation scheme, every farmer will receive water through a cylinder installed in their respective farmlands.
- It also enables them to mix fertilisers and pesticides in the cylinder.
- The technology used in this project will also purify the wastage that flows in the backwaters of River Krishna.

Udangudi Power Project

- Coal-based supercritical Udangudi thermal power project is set to come up in Thoothukudi district of southern Tamil Nadu.
- BHEL and the Tamil Nadu Electricity Board (TNEB) had signed a MoU to develop this power project in 2007.
- The estimated Rs.100-billion project is to be funded by Rural Electrification Corporation (REC).

INS Karanj

- The Indian Navy has launched the third Scorpene class submarine Karanj.
- It has been constructed by shipbuilder Mazagon Dock Limited (MDL) with collaboration of French shipbuilding major Naval Group (formerly DCNS).
- The submarine will undergo rigorous tests for the next one year before it is commissioned.

Nilgiri Marten

- It is a vulnerable and little known carnivorous animal which is endemic to the Western Ghats.
- Nilgiri Marten looks like a civet or a mongoose and it most prefers higher altitudes.
- The present global population of the Nilgiri Marten is estimated below 1000.
- The animal is placed in schedule 2 of the part 2 of the Indian Wildlife (Protection) Act 1972.
- Recent studies shows that Nilgiri marten is thriving in the Pampadum Shola National Park located on the southern portion of Western Ghats.

Shola forests

- 'Sholas' are patches of evergreen tropical and subtropical moist broadleaf forests.
- It is found in Southern India, particularly in the regions of Nilgiri, Palani Hills and Annamalai Hills.
- The Western Ghats and associated ranges in the states of Karnataka, Kerala and Tamil Nadu.

- The main varieties of Trees in this type of forest are Zenker, bishop wood, Indian mahogany, gular fig tree etc.

Guru Ravidas

- Guru Ravidas was a North Indian mystic poet saint of the bhakti movement believed to be born in Varanasi.
- He taught removal of social divisions of caste and gender, and promoted unity in the pursuit of personal spiritual freedoms.
- He founded 21st-century Ravidassia religion, by a group who previously were associated with Sikhism.
- He is devoted as guru in the regions of Punjab, Uttar Pradesh, Rajasthan and Maharashtra.

Prevention of Atrocities acts

- Scheduled Castes and the Scheduled Tribes (Prevention of Atrocities) Act, 1989 is an act of parliament.
- It falls within the provisions of Article 17 of the constitution, enacted for preventing atrocities against members of SC/ST
- It also provide special courts for the trial of such offences as well as relief and rehabilitation of the victims of atrocities.
- The PoA Act extends to the whole of India except Jammu & Kashmir, and responsibility for its implementation rests with State Governments.

Zero budget natural farming project

- To promote organic farming Himachal Pradesh has launched Zero Budget Natural Farming project.
- Zero budget farming is a natural farming technique that uses biological pesticides instead of chemical-based fertilizers.
- In this method the cost of growing and harvesting plants is zero, which makes it highly beneficial for farmers.