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CURRENT AFFAIRS MAGAZINE

OCTOBER 2018

Shankar IAS Academy™

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G.S PAPER II

1. POLITY

1.1 SC Decision on Rohingyas Deportation

What is the issue?

- Seven Rohingya men were recently deported to Myanmar for being "illegal immigrants".
- The Supreme Court dismissed an application to restrain the government from taking steps for deportation.

What is the deportation case?

- The men had entered Assam in 2012 without documentation and were prosecuted for illegal entry under the Foreigners Act.
- A case challenging the government's move to carry out en masse deportation of Rohingya refugees is still pending before the Supreme Court.
- Given this, the deportation of seven Rohingya men was unexpected and contentious.
- The government says that the detainees had consented to return and the Myanmar Embassy had confirmed they were "citizens".
- An intervention application was filed before the SC, seeking a stay order.
- The petition says the detainees were "refugees" as they were at the risk of persecution.
- But the matter was dismissed by the Bench noting that they were "illegal immigrants".

Why is the court's decision disputable?

- **Constitution** - In NHRC v. State of Arunachal, the Court extended protection under Article 14 and 21 to refugees.
- Given the circumstances, refugees often cross borders without prior planning or valid documentation.
- If not for anything, this should reinforce their status as "refugees" and not "illegal immigrants".
- Here, evidently, the Rohingya deported to Myanmar are at the risk of being tortured, indefinitely detained and even killed.
- **International law** - Further, various high courts have upheld the customary international law principle of non-refoulement.
- It is the practice of not forcing refugees or asylum seekers to return to a country in which they are liable to be subjected to persecution.
- In view of these principles, the deportation potentially violates Article 21, and India's international obligations.
- **Citizens** - The argument that the men are "citizens" and therefore not in need of protection is without legal basis.
- Refugees frequently, though not always, are citizens of the state they are fleeing from.
- Government's claim that the men have been accepted as "citizens" by Myanmar is disputable as the root of the plight of the Rohingya is the denial of citizenship.
- In Myanmar, they are being issued the controversial National Verification Card.
- This does not recognise their religion or ethnicity and definitely does not confer citizenship.
- **Judiciary** - In the absence of a domestic refugee protection law, it is for the judiciary to extend minimum constitutional protection to refugees.
- By allowing this deportation, the SC has set a new precedent that is contrary to India's core constitutional tenets.
- However, it is important to not overstate the implications, as the order was based on the notion that the men had consented to return.
- So in cases where there is no consent, this cannot apply as a precedent.

1.2 Misuse of Section 124

Why in news?

A Tamil magazine editor was recently arrested under Section 124 of the IPC.



What is Section 124?

- It applies to assaulting high constitutional functionaries such as the President and the Governor with “an intent to compel or restrain the use of any lawful power”.
- It was intended to cover cases where these functionaries are prevented from exercising their power through criminal force, attempts to overawe, or wrongful restraint.
- The offence shall be punished with 7 years imprisonment and shall also be liable to fine.
- It is a Non-Bailable, Cognizable offence and not compoundable.

What was the controversy?

- The arrest was based on a published report about Governor and his Secretary holding several meetings with an arrested assistant professor few months ago.
- The magazine based its report, not on a sting operation, but on police evidence.
- However, the TN Governor’s office had complained to the police, seeking to book the editor under Section 124.
- They cited that the offending articles express an “intention of inducing or compelling the Governor to refrain from exercising his lawful powers”.
- However, the Metropolitan Magistrate in Chennai realising the absurdity of the prosecution’s case, declined to jail the accused editor.

What was the wrongdoing here?

- The Governor had also invoked Section 124 previously when a state party staged black flag demonstrations at sites where he held meetings with district-level officials.
- It is unlikely that a black flag demonstration can attempt to “overawe” the Governor in a manner that restrains his office from exercising power.
- "Overawe" would suggest the commission of an offence that poses a real danger to the exercise of authority.
- Similarly, to extend the meaning of “overawe” to a mere protest or a work of journalism amounts to misuse of the intended provisions.

What are the precedences in this regard?

- A well-defined law has been laid down by the Supreme Court’s 1994 judgement in **R Rajagopal vs State of Tamil Nadu**, popularly known as the Auto Shankar case.
- According to that, public figures have to satisfy a very high threshold to claim privacy and the right to reputation for demanding prior restraint of a publication.
- Therefore, it would be very difficult for the governor in this case to demand prior restraint of the news article.
- Also, prior restraint has a chilling effect on press freedom, violating **Articles 19(1) & 361A**.
- In contrast, in the **Subramanian Swamy case**, the apex court stated that a person’s right to reputation takes precedence over the media’s right to report.
- Countries like US have recognised that the complainant of prior restraint must prove the presence of actual malice in order to proceed with a defamation suit against a media house.
- But Indian courts are yet to adopt this standard.

Categories of Offences

- If an offence is cognizable, police has the authority to arrest the accused without a warrant and to start an investigation with or without the permission of a court.
- Otherwise police does not have the authority to arrest the accused without a warrant and an investigation cannot be initiated without a court order.
- If an offence is bailable, police has the authority to release the accused on bail on getting the defined surety amount along with a duly filled bail bond at the concerned police station.
- Otherwise arrested person has to apply for bail before a magistrate or court
- If an offence is compoundable, a compromise can be done between the accused and the victim, and a trial can be avoided.
- Otherwise, no compromise is allowed between the accused and the victim except under certain situations, where the High Court or the Supreme Court have the authority for quashing a matter.



1.3 Assessing Defamation Law

What is the issue?

The response to the #MeToo movement in the form of defamation cases calls for a relook at the relevance and validity of the Indian defamation law.

How is defamation dealt in India?

- No legal system can allow false and slanderous statements to be made publicly, with impunity.
- In this line, the defamation law is certainly the balancing tool.
- But there is a concern that in the guise of protecting reputation, the freedom of speech and expression are often silenced.
- Unlike many other countries, defamation in India is **both civil and criminal offence**.
- Under the civil law, the person defamed can move either the high court or trial court.
- The complainant can seek damages in the form of monetary compensation from the accused.
- On the other hand, the Indian Penal Code also gives an opportunity to the defamed individual to move a criminal court.
- It is a bailable, non-cognizable and compoundable offence i.e. no police can register a case and start investigation without the court's permission.
- Under sections 499 and 500 of the IPC, a person found guilty can be sent to jail for two years.
- Since the law is compoundable, a criminal court can drop the charges if the victim and accused enter into a compromise (even without the permission of the court).

What are the concerns with defamation law?

- **Relevance** - India's criminal defamation law largely falls in the category of silencing the freedom of speech and expression.
- Section 499 of the Indian Penal Code provides an ideal weapon for powerful individuals to silence critical or inconvenient speech.
- It is a colonial relic that was introduced by the British regime to suffocate political criticism.
- **Conviction** - Unlike many other countries, defamation in India is a criminal offence (and not just a civil wrong).
- So it is a conviction that entails both social stigma and potential jail time.
- **Process** - There is a very low threshold for a prima facie case of defamation to be established by a complainant.
- S/he must only show that an "imputation" has been made that could reasonably be interpreted as harming reputation.
- On the other hand, an accused has multiple defences open, but they are effectively available only after the trial commences.
- So an accused individual would have to undergo the long-drawn-out trial process, where the procedure in itself is punishment.
- **Disproportionality** - Even the defences open to an accused are insufficient to protect free speech.
- In a civil defamation case, a defendant need to only show that her statement was true in order to escape liability.
- But in a criminal defamation proceeding, an accused must show that her statement was true and in the public interest.
- This is paradoxical as the legal system is more advantageous towards those at the receiving end of civil defamation proceedings.
- On the other hand, it is harsher towards those who have to go through the criminal process.



- **Court** - In 2016, the constitutionality of criminal defamation was challenged in the Supreme Court.
- But it was largely ignored by the court and was held that Sec 499 was constitutional as it protected individual reputation.
- The disproportionality of criminalising what is essentially a civil wrong was not considered by the court.

What is the new challenge?

- Much has changed in the last two years and the most significant change has been brought by the #MeToo movement.
- The #MeToo movement has brought submerged experiences to the surface and given a fresh vocabulary to express what, for years, seemed simply inexpressible.
- But powerful men filing criminal defamation cases to silence this new mode of public expression remains a concern.
- It has the threat of preserving and perpetuating the old hierarchies that the #MeToo movement has now challenged.

How was it dealt in the U.S.?

- The U.S. Supreme Court, in 1960s, made substantial modifications to defamation law.
- It was to ensure that it could no longer be used as a tool of harassment and blackmail.
- Articulating a very high threshold of “actual malice”, the court ensured that journalists and others could go about their job without fear.
- But this is as long as they did not intentionally or recklessly make outright false statements.

1.4 Impact Assessments of Legislations

What is the issue?

Demands have been increasing for an impact assessment framework before passing legislation in India.

What are the issues in law making?

- A legislation seeks to create a framework that helps coordinate certain governance processes or to resolve certain identified problems.
- It also articulates a standard of morality and an ethical approach that a society and government deems appropriate.
- However, Legislation and policies in India are often passed with inadequate scrutiny and assessment.
- The rush towards law results in policies and legal frameworks that are mostly reactive and seek to offer quick-fix solutions to complex problems.
- As a result, both law-makers and citizens are frequently blindsided by the unanticipated impact of these moves and the laws often run aground on issues of implementation.
- Also, the time and effort it takes to undo and resolve the issues caused by such hasty law-making compounds the problem that the law was intended to resolve, making the entire exercise of ‘fixing’ the issue futile.
- Also, law-making in India suffers from lack of consciousness on potential impact on the economy, ecology, development and society in ways that might be wholly unintended by their framers.
- This lack of consciousness stems from multiple causes –
 1. The nature of political economy in India
 2. The lack of a formal assessment structure for these laws and rules
 3. The increasing complexity of law-making in today’s diverse and interconnected societies.
- For example, the implementation of Biological Diversity Act, 2002 (BDA) shows that awareness of the BDA’s provisions is extremely limited among the judiciary and the executive.
- It also reveals that the provisions of the act are so contradictory that conservation, use and development action have almost come to a standstill.

- This creates the need for legislative impact assessments, which is slowly getting traction around the world.

What is the importance of Impact assessment?

- There is widespread acceptance of the idea that laws and rules need to be comprehensively analysed prior to their enactment.
- This is mainly done to identify the possible negative externalities from the legislation and to minimise them.
- Countries like Kenya and Finland have mechanisms in place for the assessment of regulatory and legislative proposals as an essential part of their legislative process.
- Thus there is a need for a policy and legislative impact assessment (PLIA) framework for India which should –
 1. Identify the policy problem, its root cause and the need for action
 2. Benchmark it against available alternatives
 3. Conduct stakeholder meetings and identify potential impact
 4. Pre-empt possible conflicts by identifying and planning for the mitigation of all negative effects of taking such an action.
- Such a framework should be submitted and released to the public along with every proposed bill.
- A PLIA should be a fundamentally iterative process that seeks to methodically apply a framework that assesses policies and laws at a granular level before they are put into place.
- Costs and benefits of proposed legislation and policies should also be identified since laws have persistently sought to undervalue ecosystem services as well as indigenous peoples' rights.

2. GOVERNMENT ACTS, AND POLICIES AND INTERVENTIONS

2.1 Indian Medical Council (Amendment) Ordinance, 2018

Why in news?

The Indian Medical Council (Amendment) Ordinance, 2018 was issued recently, dissolving the Medical Council of India (MCI).

What are the provisions?

- It amends the Indian Medical Council Act, 1956 which set up the MCI that regulates medical education and practice.
- The Ordinance provides for the supersession of the MCI for a period of 1 year.
- In the interim period, the central government will constitute a 7-member Board of Governors (BoG).
- The powers of the Council have been vested in the BoG led by NITI Aayog Member Dr. V.K. Paul.
- The BoG will continue to perform till an alternative comes into place as per the legal provisions in one year time.

How did it evolve?

- **Parliamentary Committee** - There were some serious concerns with the functioning of the MCI.
- A 2016 Parliamentary Standing committee report noted that mere incremental alterations to MCI would not give the expected results.
- **Supreme Court** - In May 2016, the Supreme Court had set up a three-member oversight committee.
- With one year tenure, the committee, headed by former Chief Justice of India RM Lodha, was to guide the MCI in its functioning.
- The Lodha oversight committee, at the end of its term, submitted a report.
- It detailed how the MCI openly defied the oversight committee's directives.
- Despite this, the Centre, instead of scrapping the MCI, in July 2017, proposed setting up a new oversight committee to the SC.

- In July 2018, this oversight committee members resigned, citing noncompliance of their instructions by the MCI.
- **Bill** - The government introduced the National Medical Commission (NMC) Bill, 2017, in the Lok Sabha, in December, 2017.
- This Bill, to replace the MCI with a National Medical Commission, is pending in Parliament.
- Given all these, the government is now forced to issue the ordinance.

2.2 Need for a New Antique Law

What is the issue?

The recent happenings over antique collecting across India draw attention to the shortfalls in the related laws and understanding.

What is the anomaly?

- A civilisational history cannot be constructed purely by an archaeological agency, despite it being an important component.
- Other groups such as litterateurs, historians, anthropologists and curators also contribute valuable insights into the material culture.
- However, the framing of laws has not happened in conjunction with any of these disciplines.
- This was because at the time of framing law, the agenda was to preserve India's material culture.
- But that rationality at the time of India's Independence, no longer fits in with the present requirements.
- The reality and needs of a modern-day state that seeks to understand its past is different.

What are the concerns?

- The Antiquities and Art Treasures Act, 1972 has long outlived the purpose for which it was drafted.
- A promised amendment has been floated on the website of the Union Ministry of Culture, but its status is still largely unknown.
- **Understanding** - Importance is ascribed by virtue of religious sentiment, age or provenance to every significant and insignificant work of art.
- But this hampers purposes of scholarship or understanding of what constitutes a beautiful work of art or a national treasure.
- The view that once-sacred objects today only belong to temples is a myopic view and stems from a lack of understanding of -
 - i. the role and purpose of these objects
 - ii. the temple economy that maintained them
 - iii. the constant process of renewal that occurred within historic sites
- It thus denies the process of regeneration of these living cultural sites.
- **Ownership** - Every object in a private collection is now seen as the result of temple desecration and robbery.
- The laws that govern the ownership of historical objects, their purchase and sale have been a disincentive for the average collector.
- Registering antiquities with the Archaeological Survey of India (ASI) is a cumbersome and difficult procedure for most collectors.
- Cultural vigilantism, the presumption of guilt without trial, public shaming and the resultant media trial have led to a dangerous state of affairs.
- Vigilante movements neither follow the rule of law nor do they respect the ASI's time-honoured process of registration of such artefacts.
- It is casting a long shadow on the production of knowledge of the country's past.



- **Limitations** - The rule is that every object over a 100 years is an antique.
- With every passing year, the number of objects that shift from 99th year to a 100 year status will increase.
- This would soon result in the transfer of vast numbers of objects to a status of national antiquity.
- But is the state geared to handle and maintain this vast emerging enterprise remains uncertain.
- The state is also not equipped to handle the needs of a growing populace of collectors.

What could be done?

- It is well within the rights of every citizen to acquire and collect objects of their past.
- Nevertheless, this acquisition should definitely be governed by a legal process of buying.
- With changing ideas, the role of private connoisseurship, individual collectors, trusts and foundations should also be considered.
- Their proactive agency has safeguarded the ancient Indian art from being channelled abroad or being destroyed.
- An urgent amendment to existing laws is essential to save the material culture from being examined purely from the prism of religious sentiment.
- It should foster the creation of secular spaces where everyone can enjoy and appreciate the past.

2.3 Shortfalls in Sexual Harassment Laws

What is the issue?

- The #Me Too movement has gained momentum in India, with a recent series of allegations.
- In this backdrop, it is essential to understand the drawbacks and shortcomings in the present law against sexual harassment at workplace.

What did the 2013 Act do?

- The Sexual Harassment of Women at Workplace (Prevention, Prohibition and Redressal) Act, passed in 2013, is the law in place.
- The Act expanded the ambit of the earlier Vishaka guidelines, to cover women in any working environment.
- It ranges from domestic helps to those in the unorganised sector and covers clients and customers.
- The sphere of the workplace was expanded from immediate office environment to any place visited during the course of employment.
- It included transportation, and non-traditional workplaces which involve telecommuting.
- But the #metoo movement suggests that the law urgently requires further expansion.

What are the continuing shortfalls?

- **Past incidents** - The biggest and the most obvious gap in the law flows from retrospective accusations.
- The Act offers no clues to how organisations should proceed when an existing employee stands accused of past transgressions by women with no immediate link to the existing company.
- **Mechanisms** - Some organisations have responded by mobilising the internal complaint committee to address backdated external claims.
- But the law should not rely on the subjectively variable element of organisational wisdom or convention to redress this use.
- Explicit steps to deal with such contingencies would only reassure women that the legal system takes their rights seriously.
- **Relevance** - The Act does not offer guidelines on dealing with questions raised by the movements like the current #metoo tweet-storm.
- The #metoo movement reflects a greater sense of empowerment.
- Notably, this space was curtailed by an understandable hesitation to file complaints with the police, under the current law.
- The law, therefore, needs to move in sync with the times.
- **Implementation** - For ordinary women in the unorganised sector, especially in politics, redressal mechanisms are non-existent.

- The laws stipulate setting up local complaints committees in every district for organisations with 10 or fewer employees.
- But currently, their existence and functioning is not to any noteworthy levels.
- There are also no penalties for districts that lack such complaints committees.
- **Balance** - The Act needs to acquire some balance by extending the rights to men who stand accused too.
- Ensuring the principles of natural equity is the best guarantor of women's rights indeed.
- **Leadership** - A crucial reason why women have resorted to public naming and shaming is the unresponsiveness in the formal channels.
- Leaders across workplaces must thus ensure that the formal system is sensitive and responsive enough for female employees.
- This is essential for them to confidently come forward and register a complaint.

2.4 National Database on Sexual Offenders

Why in news?

India recently became the ninth country to launch National Database on Sexual Offenders (NDSO).

What is the objective?

- The database will be maintained by the National Crime Records Bureau (NCRB) under the Ministry of Home Affairs and made available only to law enforcement agencies.
- It will include names, photographs, residential address, fingerprints, DNA samples, and PAN and Aadhaar numbers, of convicted sexual offenders.
- The database will contain more than 4.5 lakh cases, including profiles of first-time and repeat offenders, based on details compiled from prisons across the country.
- The offenders will be classified on the basis of criminal history and the data will be stored for –
 1. 15 years in the case of those classified as posing “low danger”
 2. 25 years for those presenting “moderate danger”
 3. Throughout lifetime for “habitual offenders, violent criminals, convicts in gangrape and custodial rapes.
- It will only have details of persons who are aged 18 or more.
- Whenever the **details of a convict** are entered into a prison database anywhere in the country, the name will be uploaded to the registry.
- Appeals against a conviction will have to be updated by state prisons and an accused can be tracked until an acquittal on appeal.
- State police forces have been asked to regularly update the database from 2005, which will help keep track of released convicts who have moved from one place to another.
- The registry will also store information on arrested and charge sheeted offenders but access to this will be limited to officers with the requisite clearance.
- Juvenile offenders are likely to be included in the database at a later stage.

What are the concerns?

- **Access** - The database maintained by the FBI in the US can also be accessed by the public.
- But the Indian registry will be available only to law enforcement agencies and not to the general public.
- **Classification** - There is a possibility for deeming consensual sexual activity involving a girl under 18 as “low danger” offence and be recorded in the database, if the parents of the girl files criminal charges.
- Thus a person getting added to the sex registry depends on laws that can be misused to arbitrarily classify suspects.
- **Under – reporting** - The registry does not serve as a deterrent or help people who have survived sexual violence.
- In India, most sex crimes are committed by a person known to the victim.
- NCRB data of 2015 states that out of 34,651 reported rape cases, 33,098 were committed by people known to the victim.
- This might lead to people under reporting cases of rapes or sexual offences, when they were subjected to threatening by the offenders.



- **Violence** - Also a data breach or even rumours of possible inclusion in the registry can also trigger vigilante violence against the accused.
- It will also result in discrimination and goes against the principle of trying to reform the criminal.

2.5 Protection of Human Rights (Amendment) Bill

Why in news?

The Protection of Human Rights (Amendment) Bill, 2018 was recently introduced in the Lok Sabha.

What are the key features?

- The Bill amends the Protection of Human Rights Act, 1993.
- The Act provides for a National Human Rights Commission (NHRC), State Human Rights Commissions (SHRC), as well as Human Rights Courts.
- **Composition** - Now, the chairperson of NHRC is to be a person who has been a Chief Justice of the Supreme Court.
- The Bill provides for the chairperson to be a person who has been Chief Justice of India, or a Judge of the Supreme Court.
- Similarly, for SHRC, a person who has been Chief Justice or Judge of a High Court can be the chairperson.
- The Act provides for two persons having knowledge of human rights to be appointed as members of the NHRC.
- The Bill amends this to allow three members to be appointed, of which at least one will be a woman.
- Also, the chairpersons of various commissions such as the National Commissions for Scheduled Castes, for Scheduled Tribes, and for Women are members of the NHRC.
- The Bill widens this to National Commissions for Backward Classes, for Protection of Child Rights, and the Chief Commissioner for Persons with Disabilities.
- **Term of office** - Now, the chairperson and members of the NHRC and SHRC are to hold office for 5 years or till the age of 70 years, whichever is earlier.
- The Bill reduces this to 3 years or till the age of 70 years, whichever is earlier.
- The Bill also allows for the reappointment of chairpersons of the NHRC and SHRCs.
- **Powers** - Now, the Secretary-General of the NHRC and a Secretary of a SHRC exercise powers as may be delegated to them.
- The Bill amends this and allows the Secretary-General and Secretary to exercise all administrative and financial powers.
- This is, however, except the judicial functions, and also subject to the respective chairperson's control.
- **Union Territories** - The Bill provides for the central government to confer on a SHRC the human rights functions being discharged by Union Territories.
- Functions relating to human rights in the case of Delhi will be dealt by the NHRC.

NHRC

- In 1993, the UN General Assembly adopted the Paris Principles on Human Rights.
- This led to the constitution of national human rights institutions in almost every country.
- India's human rights agency, the NHRC draws its mandate from the Protection of Human Rights (PHR) Act 1993.
- The NHRC has witnessed many controversies since its formation.
- Every 5 years the NHRC has to undergo **accreditation** by an agency affiliated to the UN Human Rights Council (UNHCR).
- The Commission's compliance to the Paris Principles is ascertained in this process.
- Better the grade, higher the benefits; if India gets an A-status, the NHRC has some privileges.
- It can play a pivotal role in the decision-making processes of the UNHRC and other important international bodies.

What are the concerns with NHRC?

- **Selection Committee** - Tasked with appointing the chairperson and the members, the committee is dominated by the ruling party.
- It consists of the PM, home minister, Leaders of the Opposition in both houses, the Speaker and the Deputy-Chairman.
- There is thus a need to diversify the selection committee.
- **Process** - The selection process is ambiguous as the criteria to assess candidates is not specified.

- Very often, the government does not publicise vacancies in the Commission.
- As a result, appointments to the NHRC have, for long, been fraught with disputes.
- **Judiciary** - The strong representation of the judiciary in NHRC is said to create trustworthiness, especially in the eyes of the government.
- It has also often been defended on the ground that NHRC's work is quasi-judicial.
- However, this is pertinent to only one of the 10 functions of the NHRC, as described in the PHR Act.
- **Investigation** - Police officials investigating for the NHRC are sent on deputation by their forces.
- Their allegiance lies with their home cadre to which they return after their tenure at the Commission is over.
- This conflict of interest restricts the scope of their work.
- It's because they often are charged with investigating abuse of power by law enforcement personnel themselves.
- Adding officials of the Intelligence Bureau to the mix may not give desired results as
 - i. they are not answerable to anyone
 - ii. there is no parliamentary oversight on their functioning
 - iii. they do not owe financial accountability to the Comptroller and Auditor General
 - iv. they have often been accused of human rights violations themselves
- The NHRC does have powers to conduct its own investigation when the Centre or state government do not respond within the stipulated time.
- However, the Commission has rarely used this power.
- Besides these, there is long pendency of the Commission's requests for additional funds.

What could be done?

- Greater transparency in the selection process.
- Diversification through the inclusion of civil society members, including academicians with proven track record.
- Also, the NHRC urgently requires officers of its own to carry out independent investigations.

2.6 National Register of Citizens for Tripura

Why in news?

The Supreme Court recently tagged the Tripura NRC (National Register of Citizens) plea with Assam NRC case.

What is the case on?

- It relates to a public interest petition filed by the Tripura People's Front and some others.
- The petition asked the Supreme Court to direct the authorities to update the NRC with respect to Tripura.
- This is in terms of The Citizenship (Registration of Citizens and Issue of National Identity Cards) Rules, 2003.
- The court has directed the court registry to tag the petition along with petitions in the Assam NRC case.
- So it would now be heard by a Special Bench monitoring the Assam NRC case.
- The Supreme Court issued a notice to the centre and the Election Commission of India in regards with the plea.

What is the rationale?

- The purpose is to detect and deport the "illegal immigrants" from Bangladesh, as is being done in Assam.
- Much of the migration into Tripura occurred before the creation of Bangladesh.
- Uncontrolled influx of illegal migrants has caused huge demographic changes in Tripura.
- Indigenous people who were once the majority have now become a minority in their own land.

Tripura fact file

- Princely State of Tripura merged with the Indian Union on October 15, 1949
- Attained full statehood on January 21, 1972
- Fresh communal disturbances in 1950 in East Bengal, West Bengal, Assam and Tripura lead to the Nehru-Liaquat Agreement on April 8, 1950
- National Register of Citizens prepared in 1951
- Treaty for friendship, co-operation and peace signed between India and Bangladesh on March 19, 1972
- The Illegal Migrants (Determination by Tribunals) Act, 1983 and The Illegal Migrants (Determination by Tribunals) Rules, 1984 are struck down by SC

■ As per the government, the estimated number of illegal Bangladeshi immigrants in India as on 2002 was 1,20,53,950. In Tripura, there were approximately 3,25,400 illegal immigrants

SOURCE: PIL

- Resultantly, Tripura, a predominantly tribal State, has now become a non-tribal State.
- The presence of illegal immigrants violates the political rights of the citizens of Tripura.
- The petition noted that the “influx” of illegal immigrants amounted to ‘external aggression’ under Art 355 of the Constitution.
- Given this, the Union is bound to protect the State of Tripura from this.
- Also, the 1993 tripartite accord signed by the Government of India with the All Tripura Tribal Force was cited.
- It asked for the repatriation of all Bangladeshi nationals who
 - i. had come to Tripura after March 25, 1971 (and)
 - ii. are not in possession of valid documents authorising their presence in the State
- The petitioners went further and demanded the cut-off date to be July 19, 1948, as provided for in Article 6 of the Constitution, dealing with citizenship rights.

How has Tripura been in the recent decades?

- After years of struggle, in 1979, the tribal people of the State had gained special autonomy provisions -
 - i. the institution of the Tripura Tribal Areas Autonomous District Council
 - ii. recognition of their spoken language and other assurances
- Since then, the council has been empowered and the tribal rights have been ensured protection.
- These have steadily eroded the tribal versus non-tribal differences that once existed in the State.
- Resultantly, over the last three decades, multiple insurgent groups have also ended violent struggles.

What is the concern now?

- The judicial-bureaucratic process in deportation of long-settled migrants is much as already being faced in Assam.
- Here, the fate of the four million people whose names did not figure in the final NRC draft for Assam remains uncertain.
- So any bureaucratic exercise without considering its deep humanitarian impact will only create new fault lines.
- This is especially the case in a State like Tripura where there is no such unanimity of views on the NRC process.
- So deportation may likely undo the years of work to bring about reconciliation between Bengali-speaking and tribal people.
- The Supreme Court should take this into consideration while hearing the petition.

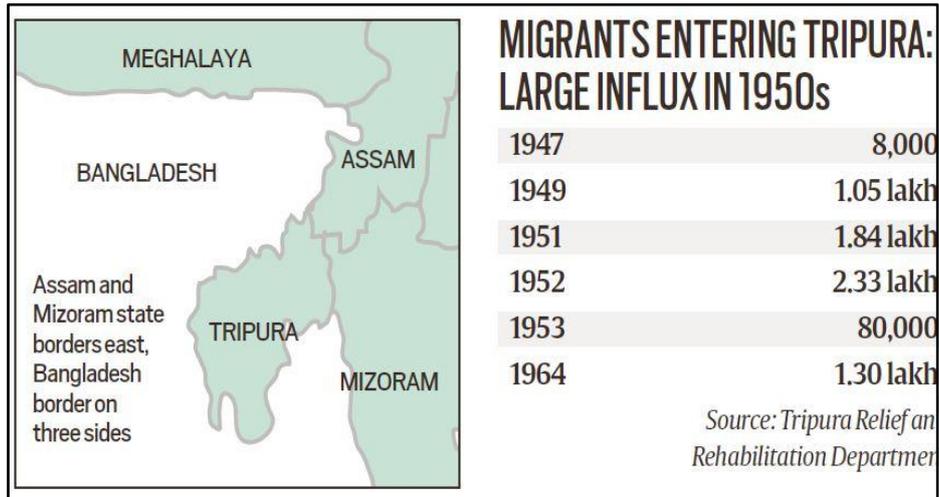
2.7 National Register of Citizens (NRC) for Tripura

Why in news?

Demand for NRC for Tripura, on the lines of the NRC in Assam, has been rising in recent times.

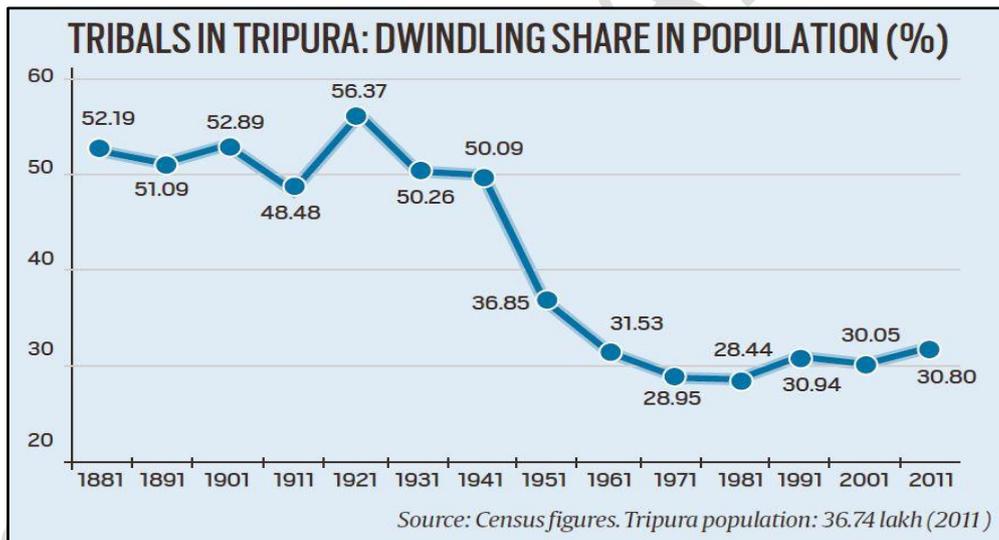
Who are Tripura’s indigenous people?

- There are 19 notified Scheduled Tribes in Tripura, among whom the Tripuris are the largest group.
- The Tripuris are also considered the aboriginals as they migrated first.
- The princely state of Tripura was ruled by the Manikya dynasty, belonging to the Tripuri community, from the late 13th century until the signing of Instrument of Accession with the Indian government on October 15, 1949.
- Other important groups that are migrated at various times include Reang and Jamatia (via the Chittagong Hill Tracts from parts of Burma), Bhil, Orang and Santhal (from parts of central India and Bengal).
- The 2011 Census puts the number of Tripuris, who belong to the Indo-Mongoloid family, at 5.92 lakh, followed by Reangs (1.88 lakh) and Jamatias (83,000).



What is the extent of migration by non-tribal groups?

- From 63.77% of Tripura's population in 1881, tribal population were reduced to 31.80% in 2011.
- This followed the migration of 6.10 lakh Bengalis between 1947 and 1971, displaced from then East Pakistan.
- The migration was also present before 1947, though it became high after Partition.
- The Manikya kings had hired Bengalis from their estate in Bangladesh to work in its administration, and encouraged them to settle in the plains to spread settled cultivation.



How many Bengalis live in Tripura now?

- According to Language Census 2011, Bengali was the mother tongue of 24.14 lakh people in Tripura.
- This represents 2/3rds of the 36.74 lakh population, and almost three times of Kokborok speaking people, which is a language of the Tibeto-Burman family and the mother tongue of the largest tribal groups.
- In 1979, Kokborok was accorded the status of official language, alongside Bengali and English.
- Though it uses the Bengali script, indigenous groups have been demanding recognition of the Roman script for Kokborok.
- The dominance of Bengali in the state, however, cannot be attributed to recent migration alone.
- It was the official court language of princely Tripura at a time when English was the official language of Bengal, while Manikya kings promoted Bengali.
- Thus the current demand stems from the issue of illegal migration after Tripura's merger with the Indian Union, and not because of an altogether anti-Bengali stance of the people.

Has migration not been an issue earlier?

- A first tribal insurgent group was emerged in the 1960s and it reached its peak in 1980, wherein insurgents got involved in mass massacres against Bengalis.
- Though the militant group entered into a peace agreement with New Delhi, the crisis doesn't end there.
- According to the South Asia Terrorism Portal, 2509 civilians, 455 security personnel and 519 insurgents were killed between 1992 and 2012.
- Various research identifies "land alienation" as the root cause behind ethnic strife and hence there is a requirement of land reforms and a revisit of political representation.
- This results in the emergence of demand for NRC, particularly after the exercise in Assam, wherein a new forum called "The Tripura People's Front" suggesting July 19, 1948 as the cut-off date.
- Various groups from Tripura including the Indigenous Nationalist Party of Tripura (INPT) has also raised a similar demand.

What should be done?

- The central government has promised a committee to address the rights of the indigenous population, and strengthening of the TTADC.
- The Tripura Tribal Autonomous District Council (TTADC), covering 2/3rds (7,332 sq. km) of the state's area, was set up in 1979 and brought under the Sixth Schedule in 1985.
- The Centre has also formed a 13-member committee to address tribal grievances.
- The state had rejected the demand for an NRC but it is open to such an initiative if the NRC exercise in Assam is successful.

2.8 Challenges in the Implementation of RSBY

What is the issue?

The experience in the implementation of RSBY shows that the importance of values perceived by the community for the health insurance is scheme is more important.

What is the scheme all about?

- In India, out of the estimated workforce of 47 crores, only eight crores are organized workers and 39 crores are workers in the unorganized sector.
- Also, every year about 36 million families, or 14% of households, face a medical bill that is equal to the entire annual living expenses of one member of the family.
- This frequently pushes many families into penury.
- To cover these people, RSBY was launched in 2008 as the health insurance scheme for BPL (below poverty line) families, targeting mainly the workers in the unorganized sector.
- It provides for IT-enabled and smart card based cashless health insurance, including maternity benefit cover up to Rs. 30,000/- per annum on a family floater basis to BPL families (a unit of five) and 11 occupational groups in the unorganized sector.
- Insurance Companies both of public and private sector have participated in this flagship scheme.

What were the benefits?

- RSBY was embedded within the framework of universal health care and health rights.
- It paid appropriate attention to the existence of health rights in a local set-up.
- Targeted households measured the value of the RSBY in terms of its material benefit and measurable impact.
- This included the financial ease it provided in taking care of illnesses, the expense and types of illnesses that the card covered, and the transaction costs it entailed.
- They consider the usage of the card more in terms of bureaucratic paperwork and formal procedures.



What are the concerns in the implementation?

- However, households also valued the RSBY beyond its visible impact and they have shown little value for the RSBY over the years.
- **Service provider** - Hospitals did not respect patients with the card, believing that they were availing medical care free of cost.
- Sometimes they did not honour the card either due to inaccuracy of fingerprints or lack of money on the card.
- **Information** - Officials who distributed the RSBY smart card did not provide information on how to use the card.
- Neighbours and family members did not discuss the utilisation of the card, making households perceive the card as important to possess but not useful.
- The lack of involvement and endorsement by local leaders further diminished the value of the card for the households.
- **Awareness** - The difficulty in understanding the basic facts of the card and using it led households to opt for seeking medical care without the card.
- The cultural ethos of health insurance also affected its implementation, wherein a significant number of households perceived health insurance as a “bad omen” indicating the arrival of sickness and disease.

What does it imply for the Ayushman Bharat scheme?

- The government recently launched the grand government-funded healthcare scheme, the Ayushman Bharat-Pradhan Mantri Jan Arogya Yojana (PMJAY).
- While some see its ambitious goals as its main strength, others are sceptical given the inadequate funding for the scheme, the weak infrastructure of primary health care centres, and the time required for the goals to be accomplished.
- The emerging discourse surrounding the PMJAY scheme resonates with those of RSBY.
- Although the PMJAY is much wider in its reach than the RSBY, the central framework of ensuring universal health care and health rights is the same for both the schemes.
- Also the issues considered such as allocation of funds for each illness, the types of care provided, financial considerations for empanelment of hospitals, types of illnesses covered, and transaction costs looks similar.
- However, the experience of RSBY shows that it is more important than ever before to explore how citizens exercise their right to health and understand how it could be better practised.
- Hence, the biggest challenges for the success of the PMJAY scheme lies not just in the financial and infrastructural hurdles at the local level, but on how its value is perceived by the community.

2.9 UGC Circular on Conduct Rules

Why in news?

The University Grants Commission, in a recent circular, directed central universities to follow Central Civil Services (Conduct) Rules 1964 on the conduct of faculty.

What does it imply?

- The Conduct Rules forbid civil service officers from expressing any view critical of the government or its policies.
- The circular means that university teachers will also now not be able to express their views freely.
- E.g. Prominent economists at central universities must be silent on the Food Security Act being economically unsound.
- Historians may not question the official version of history even if it is riddled with problems and falsehoods.
- Environmental scientists questioning environmental/forest policy would risk being in violation of the Rules.
- No professor can raise her voice against a government overlooking growing vigilantism.



- They cannot get involved in any political activity, strike work or even publish without the permission of the government.
- The Rules will prohibit university teachers from speaking to the media, even anonymously or pseudonymously.
- Implementing Conduct Rules in central universities will thus rob universities of free exchange of ideas and critical analysis which are, in fact, critical to an intellectual arena.

Why is the decision contentious?

- **Roles** - The civil services and academia at the universities vary greatly in essence, function and their respective roles.
- The civil service's cooperation (loyalty) is crucial to the implementation of the government's executive decisions.
- But this is not really the case when it comes to university professors' cooperation.
- **Autonomy** - The central universities are guided by their respective Acts of Parliament and their own statutes and ordinances.
- The Acts are diverse precisely because they are meant to preserve the institutional and functional autonomy.
- The UGC plays a regulatory role, but it is also tasked with protecting and furthering the autonomy of central universities.
- **Legal** - University professors "are neither members of a service nor do they hold a civil post under the Union nor they are in the service of local or other authority".
- This was clearly stated by the Allahabad High Court in its ruling in 2015.
- All these roles and legalities stand in contradiction to the recent circular of UGC which seems to be behaving more as the Centre's messenger.

2.10 Amendment to The Sports Broadcasting Signals Act

Why in news?

The government recently made a proposal to amend The Sports Broadcasting Signals Act, 2007.

What is the recent proposal?

- According to the Sports Broadcasting Signals (Mandatory Sharing with Prasar Bharati) Act, 2007, no private rights holder can telecast a "sporting event of national importance" live in India unless it simultaneously shares the signal, without any advertisements, with Prasar Bharati.
- Some of the important events that come under the national importance rubric include –
 1. National cricket matches
 2. The semi-finals and finals of the football World Cup
 3. Certain Grand Slam tennis matches and hockey fixtures
 4. The Asian Games
 5. Commonwealth Games
 6. The Summer Olympics
- The public broadcaster can re-transmit the same only on its own terrestrial network and direct-to-home platform DD FreeDish.
- Under this Act, Prasar Bharati is also not obligated to show the logo of the rights holder's channel and can generate its own pre- and post-match programmes.
- The Act also forces the rights holder to share 25% of its television advertisement revenue with Prasar Bharati (50% in case of radio).
- The government has now proposed that Indian television viewers should be able to watch sporting events of national importance on Doordarshan **on all** terrestrial networks, DTH networks and other platforms where it is mandatory to broadcast these channels.
- This is done at the backdrop of people watching these sporting events on highly priced sports channels when they do not have either DD FreeDish or Doordarshan's terrestrial network.



- Hence the objective of this amendment is to ensure inclusion and affordability in sports viewership with which the Parliament had enacted the Sports Act of 2007.

What are the concerns?

- Private broadcasters faced a major hurdle in the form of Cable Television Networks Act last year.
- Under Section 8 of the act, all cable operators must carry two Doordarshan channels.
- This meant that cable companies gained access to key sporting events both through the private broadcasting channels, for which viewers have to pay, and also via Doordarshan channels, which are free.
- This created an asymmetrical playing field since subscribers were unlikely to pay for events they can view for free in doordarshan channel.
- Pay TV operators also misused the provision by giving FTA (free-to-air) channels to paying subscribers, charging money from them and not sharing it with the broadcasting rights holder.
- This has resulted in less viewership for private broadcasting channels and also affecting their sizeable revenue.
- To avoid this, the Supreme Court ruled that Doordarshan could air those feeds only on its terrestrial network and its own direct-to-home (DTH) platform, Free Dish and not to other platforms.
- This made these borrowed feeds getting restricted to the homes, which get DD network signals via terrestrial or direct to home networks.
- The government recently reverted back this ruling and hence homes which get Prasar Bharati (Doordarshan) channels on cable also get access free to the live broadcast.
- Private broadcasters are unlikely to be pleased with this proposal, considering the amount of money they spend on media rights of sporting events, especially in cricket.
- Star India acquired the media rights for the popular Indian Premier League in a five-year deal worth a record Rs 16,347 crore last year.
- Star India also purchased the media rights for the Indian cricket team's home matches till 2023 for a record Rs Rs 6138.1 crore earlier this year.
- Also, the Act allows the government to notify a sporting event as being of "national importance".
- This will pave the way for arbitrary selection by the government like the possibility of attaching IPL under its ambit.
- Thus the welfare instincts of this amendment is no stronger and effective, even though it involves a large amount of corporate investments.

What should be done?

- The amendment betrays a lack of understanding of the underlying business model in sports broadcasting.
- Doordarshan covers every TV home in the country, so those who cannot afford to pay admittedly expensive subscription fees for sports get a good opportunity to view them.
- The amendment is proposed to ensure that sporting events of national importance reach out to larger audience on a free-to air basis.
- But the private broadcasters earn their revenues by airing in television mode where the money is to be made for the rights they received.
- This made them to argue against this amendment as they pay billions of rupees to bid for the rights to broadcast these events.
- Thus the government should try to ensure a balance between the interests of the investors and those of the common public.

3. SOCIAL ISSUES

3.1 Sexual Harassment at Workplace - #MeToo movement

What is the issue?

- The #MeToo movement is gathering pace in India in recent days, with women calling out influential men for alleged sexual harassment.
- It is imperative, in this backdrop, to understand the legal recourses in place to sexual harassment at the workplace.



What were the earlier Vishaka guidelines?

- The Vishaka guidelines were laid down by the Supreme Court in ***Vishakha and others v State of Rajasthan*** judgment in 1997.
- Vishaka is a women's rights group.
- It imposes three key obligations on employing institutions - prohibition, prevention, and redress.
- The institutions are mandated to establish a Complaints Committee.
- This was to look into matters of sexual harassment of women at the workplace.
- These guidelines are legally binding.

What are the key provisions in the present Act?

- **Sexual Harassment of Women at Workplace (Prevention, Prohibition and Redressal) Act** was passed in **2013**.
- It broadens the Vishaka guidelines, which were already in place.
- **Definition** - An aggrieved victim is a woman "of any age whether employed or not", who "alleges to have been subjected to any act of sexual harassment".
- The Act thus covers the rights of all women working or visiting any workplace, in any capacity.
- Sexual harassment is any one or more of "unwelcome acts or behaviour", committed directly or by implication.
- They include:
 - i. Physical contact & advances
 - ii. A demand or request for sexual favours
 - iii. Sexually coloured remarks
 - iv. Showing pornography
 - v. Any other unwelcome physical, verbal or non-verbal conduct of sexual nature
- Additionally, the Act mentions five circumstances that amount to sexual harassment:
 1. implied or explicit promise of preferential treatment in her employment
 2. implied or explicit threat of detrimental treatment
 3. implied or explicit threat about her present or future employment status
 4. interference with her work or creating an offensive or hostile work environment
 5. humiliating treatment likely to affect her health or safety
- **ICC** - Every employer must constitute an Internal Complaints Committee (ICC) at each office or branch with 10 or more employees.
- For the ICC to act, it is not compulsory that the victim must write a complaint.
- If she cannot write, any member of the ICC "shall" render "all reasonable assistance" to her for making the complaint in writing.
- If the woman is unable to make a complaint on account of her "physical or mental incapacity or death or otherwise", her legal heir may do so.
- The identity of the woman, respondent, witness, any information on the inquiry, recommendation and action taken should not be made public.
- **Time-frame** - The complaint has to be made "within three months from the date of the incident".
- For a series of incidents, it has to be made within three months from the date of the last incident.
- However, this time-frame is not rigid as the ICC can "extend the time limit".
- This is in case if it is satisfied that the circumstances were such which prevented the woman from filing a complaint in that period.
- **IPC** - The ICC may forward the complaint to the police under Indian Penal Code Section 509.
- The Section relates to word, gesture or act intended to insult the modesty of a woman.

- This would lead to maximum punishment of one year in jail with fine.
- **ICC Inquiry** - Otherwise, the ICC can start an inquiry that has to be completed within 90 days.
- The ICC has similar powers to those of a civil court in respect of the following matters:
 - i. summoning and examining any person on oath
 - ii. requiring the discovery and production of documents
- When the inquiry is completed, the ICC is to provide a report of its findings to the employer within 10 days.
- The report is also to be made available to both parties.
- While the inquiry is on, the woman can make a written request to the ICC regarding work.
- The ICC, “may”, then recommend her transfer, leave for 3 months, or any other relief as may be prescribed.
- **Actions** - If the allegations are proved, the ICC recommends that the employer take action for sexual harassment.
- This would be in accordance with the provisions of the service rules, which vary from company to company.
- It also recommends that the company deduct from the salary of the person found guilty, “as it may consider appropriate”.
- Compensation is determined based on five aspects:
 - i. suffering and emotional distress caused to the woman
 - ii. loss in career opportunity
 - iii. her medical expenses
 - iv. income and financial status of the respondent
 - v. the feasibility of such payment
- **Appeal** - After the recommendations, the aggrieved woman or the respondent can appeal in court within 90 days.
- **False complaint** - Section 14 of the Act deals with punishment for false/malicious complaint and false evidence.
- In such a case, ICC “may recommend” the employer to take action against the woman or the person who has made the complaint.
- However, it cannot be taken for “mere inability” to “substantiate the complaint or provide adequate proof”.
- **Conciliation** - The ICC “may”, before inquiry, take steps to settle the matter between the victim and respondent through conciliation.
- This is only “at the request of the aggrieved woman,” and provided that no monetary settlement is made as a basis of conciliation.

What does the MWCD Handbook specify?

- The Ministry of Women & Child Development (MWCD) has published a Handbook in this regard.
- It gives more detailed instances of behaviour that constitutes sexual harassment at the workplace:
 - i. Sexually suggestive remarks, offensive remarks, inappropriate questions or remarks about a person’s sex life
 - ii. Display of sexist/offensive pictures, posters, MMS, SMS etc
 - iii. Intimidation, threats, blackmail around sexual favours; also, any kind of threats against an employee who speaks up
 - iv. Unwelcome social invitations with sexual overtones, commonly seen as flirting/Unwelcome sexual advances
- It says “unwelcome behaviour” is experienced when the victim feels bad or powerless, causing anger/sadness or negative self-esteem.
- It adds that unwelcome behaviour is one which is “illegal, demeaning, invading, one-sided and power based”.



3.2 Violence against Migrants – Gujarat

Why in news?

Gujarat has witnessed the violence against Hindi-speaking migrants recently.

What is the background?

- A child was allegedly raped by a man from Bihar.
- This has triggered the violence against Hindi-speaking migrants.
- The alleged rapist had been arrested on the same day.
- However, incidents of “revenge attacks” against “non-Gujaratis” were followed and has triggered a mass exodus to Bihar, UP and MP.

What are the larger problems?

- Though the child rape is the immediate trigger of violence, there are some structural issues regarding the employment scenario in Gujarat.
- As in other States, Gujarat is seeing increasing discontent over the lack of adequate jobs for young Gujarati people.
- The CMIE’s unemployment rate monthly time series shows that 4.6% of those surveyed and actively looking for work in Gujarat were not employed in September 2018.
- This is less than the national average (6.8%), but there has been a relative increase in this number since the previous year in Gujarat.
- Lack of job opportunities for the locals bubbled up the demand for limiting jobs for migrants and the associated resentment against ‘outsiders’.

How Gujarat benefitted from migrants?

- The Economic Survey in 2016-17 pointed out that Gujarat is among the States, including Tamil Nadu, Maharashtra and West Bengal, with the highest net in-migration of workers.
- It also found that States that were relatively better developed than the rest of the country were also host to more migrants.
- Migrants have played a vital role in greasing the wheels of growth by providing cheap labour in the many small and medium enterprises in the manufacturing and construction sectors.
- The industry and commerce associations in Gujarat have complained about the recent flight of migrants, with the festival season looming.
- This reflects the importance of migrant labour in Gujarat.

What were the governmental measures?

- According to a government resolution passed in March 1995, locals are defined as people living in the state for the last 15 years in Gujarat.
- The criterion has now been reduced to 7 years.
- As per the original resolution, all private, state and Central government entities in Gujarat have to ensure that 85% of jobs in the workers’ grade are reserved for local residents.
- The percentage can be 50% for managerial and supervisory positions.
- The Gujarat government recently announced that it will soon introduce a law that mandates industries set up in the state to ensure that 80% of the workforce are Gujaratis.
- The rule is already present but currently there is no Act to back it up and penalise those who violate it.
- The government is also trying to fine-tune the definition of “domicile” in the state.
- The state government also plans to ensure that 25% of those hired are from the area or region where the industry is set up.



- However, 92% of the workforce (total 8.23 lakh jobs) were locals in about 4,700 large industrial units in the private sector in Gujarat.
- In the state government-controlled establishments, the percentage of locals was as high as 98.9.

What should the government do?

- The State must follow a more holistic policy of creating incentives for firms leading to greater employment, instead of merely dictating higher recruitment of locals.
- Nativist arguments against migrants neither serve the interest of the State concerned nor address the issue of ensuring job-oriented growth.
- Apart from steps to arrest the violence against the migrants and to stop the exodus, the Gujarat government must commit itself to a facilitating role for job-creation.

3.3 Reforming Prisons in India

What is the issue?

The Supreme Court constituted a committee on prison reforms recently.

What is its mandate?

- It was constituted at the backdrop of inhuman conditions that are present across 1,382 prisons in India.
- It will look into the issues including over-crowding in prisons and suggest reforms for prisons across the country.
- It will also look into the issue on a day-to-day basis and suggest measures to tackle the problems since it includes the issue of human rights of prisoners in jails.
- It will also look into the various issues concerning women prisoners.

What are the conflicting views?

- Opinions are prevailing in the society that a gruesome crime needs to be dealt with severely.
- This paves the way for unresolved conflict regarding whether to go for punishment or reform for the prisoners, which results in halfway jail reforms agenda in many countries.
- Concerns were prevailing that if the prison conditions are improved, there is likely to be an attendant impact on the incidence of crime.
- This accounts for the reluctance of many criminal justice administrators to employ or enlarge non-prison alternatives such as community service.
- The objective of criminal punishment should be one of reform rather than wreaking vengeance on a perpetrator of crime.
- Thus any exercise to improve prison conditions must not ignore this axiom.

What are the concerns?

- **Spending** - The offshoot of all this is growing numbers of prisoners and the woeful incapacity of governments to build more and larger prisons.
- The government considers it as extra fiscal spending and views prison reforms as diverting its resources to a negative exercise.
- Jail officials are also often asked to somehow manage with existing modest facilities.
- **Prison overcrowding** - Prison Statistics India brought out by the National Crime Records Bureau shows that there were nearly 4.2 lakh inmates in 1,401 facilities, with an average **occupancy rate of 114%** in most in 2015.
- About **67%** of total inmates were **under trials**, a commentary on the speed and efficiency of India's criminal justice system.
- While public officials and social workers are agreed upon the need to reduce overcrowding, there is hardly any convergence on how to go about this delicate exercise.
- There is also an obvious fear of backlash against any move to decriminalise what is now prohibited by statutes.

- **Differential Treatment** - There is a popular view that in order to reduce prison populations, proven non-violent offenders could be dealt with differently.
- But it is frustrating that no consensus has evolved on this relatively uncomplicated issue.

What should be done?

- White-collar crime refers to financially motivated, nonviolent crime committed by business and government professionals.
- Devising swift processes of attachment of properties and freezing of bank accounts are alternatives to a jail term.
- Government could make measures to deprive them of their illegal gains, rather than continuing to lock up them in prisons to reduce overcrowding.
- There are legal impediments here on the state taking over illegally acquired wealth, but these can be overcome by ensuring a certain fairness in the system.
- The argument that not all gains made by an economic offender are open is not convincing enough to opt for incarceration over punitive material penalties.
- In India, progress has been made in freezing 'benami' holdings of major offenders even though it may not be a 100% effective step of cleaning up.
- But these are the first steps towards making economic crimes unaffordable and unattractive for the average offender.
- The draft National Policy on Prison Reforms and Correctional Administration also seeks to provide alternatives to prisons such as community service, forfeiture of property, payment of compensation to victims, public censure etc.,
- Justice Mulla committee also recommended that those convicted for non-violent socio-political economic agitations for public cause shall not be confined in prisons along with other prisoners.
- Thus, political leverage to improve prison conditions is the need of the hour to create model prisons in the country, where inmates are accommodated with due regard to their basic human needs and are handled with dignity.

3.4 Renaming of Allahabad

Why in news?

The Uttar Pradesh cabinet recently approved a proposal to rename Allahabad as 'Prayagraj'.

What is the procedure?

- The task of renaming a city is given to the State Legislators.
- The procedure differs from state to state but the regulations remains the same.
- The first step involves raising of a request in form of a resolution by any MLA, which proposes the renaming of any particular city or street.
- On the basis of the request of the MLA, the issue would be deliberated upon and the consequences of the same shall be discussed upon.
- The final step involves voting of the validity of the resolution.
- If a simple majority is attained in favour of the resolution, the said resolution shall be declared passed.
- The State Legislation on the basis of the majority view shall make the necessary changes in the name of the state or city public.
- The proposal will go to the Centre for approval before the city is officially renamed.

What is the history behind Allahabad?

- The age-old name of the city was Prayag which in literal translation means "a place of sacrifice".
- Prayag finds its mention in the Rig Veda and is recognised as the place where Brahma (the creator of the universe in Hindu mythology) attended a ritual sacrifice.



- Allahabad is more famously known as Triveni Sangam or Sangam Nagari as it is in this city that the confluence of three most pious rivers, the Ganges, Yamuna and Saraswati occurs.
- The name was changed after 16th-century Mughal emperor Akbar built a fort near 'Sangam'.
- Akbar is said to have chosen the name Ilahabad for the city to press his syncretic religious idea espoused in the Din-i-Ilahi.
- Ilahabad is the city of gods, its pluralistic heritage includes not just Hindu and Islamic traditions but also a Christian lineage derived from its colonial inheritance.
- Later, Shah Jahan renamed the entire city as 'Allahabad'.
- However, the area near the 'Sangam', the site of the Kumbh Mela, continues to be known as 'Prayag'.

What are the concerns?

- **Marginalisation** - The decision is made out of arbitrariness and political motives.
- The residents have not been known to pitch for a change of name as a priority.
- The city, once a teeming cosmopolitan centre of learning, cultural production, politics and industry, has been in decline over the past few decades, mirroring the marginalisation of this region in national affairs.
- **Heritage** - The name change is hardly likely to address any of the city's problems or the many unfulfilled aspirations of its residents.
- Also, Muslims constitute nearly 20% of the state's population, at over 38 million, and denying such a large population its due share in public life and collective memory, is to practise exclusionary politics.
- There have been no studies done to date to measure the impact of city name changes.
- **Cost** - Geographical indicators attached to the place, in the international market, often end up losing their significance due to such a change.
- Outsiders have to be introduced with the new name of the place and the traffic signs and milestones have to be reinstalled.
- Railway signage, systems and paperwork across the country have to be updated.
- Government and business stationery have to be destroyed and remade at a cost to the environment.
- The biggest cost may be in re-educating outsiders about the name change, an intangible line item whose true costs will never be known.

4. GOVERNANCE

4.1 Tussle within CBI

Why in news?

- The Central Vigilance Commission (CVC) recently passed orders divesting CBI Director Alok Verma of his "functions, power, duty and supervisory role" at the CBI.
- Joint Director M. Nageshwar Rao has been asked to take over charge as interim CBI Director.

How are officers at these levels appointed?

- Before the Lokpal Act was enacted, the CBI Director's appointment was done under the Delhi Special Police Establishment Act.
- Under this, a list of eligible candidates was prepared by a panel comprising the Central Vigilance Commissioner as chairperson, other vigilance commissioners, Home Secretary and Secretary (Coordination and Public Grievances).
- The final decision would be taken following consultations between the PMO and Home Ministry.
- Following the enactment of the Lokpal Act, the list is prepared by the Ministry on the basis of seniority and experience in anti-corruption investigations.
- This list goes to the Department of Personnel and Training, which vets it further.



- The list then goes to the Lokpal Search Committee.
- It comprises of
 1. the Prime Minister,
 2. the Chief Justice of India (Or a representative deputed by CJI) and
 3. the Leader of the Opposition (LoP) (If no party is large enough, the leader of the largest Opposition party can attend.)
- The search committee examines the names and sends its recommendation to the government.
- The decision of the committee could be unanimous or divided with a member recording a note of dissent.
- The government appoints other subordinate officers in consultation with the CVC after due vetting of integrity and seniority.

What are the powers of the Director?

- There is no official No. 2 in the agency — it is informally decided on the basis of seniority.
- The Director remains the ultimate authority, and no other officer has any independent powers that can bypass his.
- The Director has the prerogative to assign investigation of a case to an officer.
- His is also the final call on the action to be taken in a case.

What is the genesis of the current crisis?

- In October 2017, the CBI Director handed over a confidential note to the CVC during a panel meeting over the promotion of Asthana to the post of Special Director.
- The note alleged corruption on Asthana's part with regard to the Sterling Biotech case of August that year.
- The CVC panel unanimously cleared Asthana's promotion, disregarding Verma's submissions.
- It said the allegations were not verifiable.
- In June this year, the Director targeted Asthana again, by probing him for alleged corruption.
- Asthana hit back by writing to the Cabinet Secretary in August that Verma was interfering in his probes and had tried to stall a raid on Lalu Prasad in the IRCTC case.
- He also alleged corruption on Verma's part.
- Less than two months later, Verma got an FIR registered against Asthana as an accused in a case of corruption.

Was sanction needed before the FIR was filed?

- Section 17A of the recently amended Prevention of Corruption Act makes **previous approval of the government mandatory** before conducting any investigation into any offence alleged to have been committed by a public servant, where the alleged offence is relatable to discharge of his official functions/duties.
- It also says, "No such approval shall be necessary for cases involving arrest... on the spot on the charge of accepting or attempting to accept any undue advantage..."
- CBI has argued that since this was a case of bribery and not of abuse of official position in connection with a decision taken on policy or otherwise, this would not fall under the purview of Section 17A.
- This, however, is being disputed by many.
- It is being argued that since in the case against Asthana, no one was caught accepting a bribe "on the spot", the agency should have taken permission from the government before charging him.

What was the recent CVC's order?

- The CVC noted that the atmosphere within the agency become corrupted due to the feud and hence intervened.



- It has recommended the government to remove the CBI director on allegations of bribery and undue interference in corruption cases.
- It also charged Mr. Verma with not making available the records and files sought by the CVC and said he is “non co-operative” and had “created wilful obstruction” in the CVC’s functioning.
- Thus the government decided to send Verma on leave in the “interest of equality, fair play and principles of natural justice”.
- The government said that action was taken against Verma based on the CVC’s decision to conduct an inquiry against him.

How can the director be transferred?

- **Section 4B** of the DSPE Act lays down the following terms and conditions of service of the CBI Director.
- The Director can continue to hold office for a period of not less than 2 years from the date on which he assumes office.
- He/she shall not be transferred except with the previous consent of the Committee consists of the PM, Leader of Opposition in Lok Sabha, and CJI or a judge of the SC appointed by him.
- The same procedure was laid down by the SC in the landmark judgment of **Vineet Narain & Others vs Union of India & Anr (1997)**, with legally bindings.
- Also, the Central government in 2013 said that the Director shall not be transferred without the consent of Selection Committee.
- It also says that only President would have the authority to remove or suspend the Director, on a reference by the CVC of “misbehaviour or incapacity”.
- **Section 4C** of the DSPE Act provision clearly says that the CVC has no role, whatsoever, in curtailing or extending the tenure of the CBI Director.
- However in the present case, the committee was not involved.
- Nor has the CVC established his misbehaviour or incapacity.

What is CVC’s justification?

- The CVC has invoked Section 8(1)(d) of CVC Act, which relates to inquiry or investigation of an official who has committed an offence under the Prevention of Corruption Act (PCA).
- But, Verma has as yet not been accused of or named in an offence under the PCA.
- It has also invoked Section 11 which says that the CVC has the power of a civil court to summon persons, documents and examination of witnesses related to the inquiry.
- But these sections do not say the CVC has the power to recommend to the government to divest the CBI Director of his powers.

What should be done?

- The controversy has raised the important question of whether the statutory changes aimed at insulating the CBI Director’s office from political and administrative interference are adequate.
- Mr. Verma has also challenged the legality of his dismissal.
- Thus, the Supreme Court will have to address the question if the interim measure of removal amounts to unlawfully curtailing the Director’s tenure.
- It will also examine whether the CVC’s power of superintendence has been rightly invoked in the present case.

4.2 RBI-Centre Tussle

What is the issue?

The break-down of communication lines between RBI and the Centre in recent times is worrying for the domestic economy.

What are the conflicting areas?

- There are multiple flashpoints between the RBI and the Centre that seem to have precipitated this outburst.



- Disagreements between RBI and the centre over setting benchmark interest rates have been common over the years.
- But the disagreements appear to be over regulation in itself this time.
- **Concerns of RBI** - There are three issues on which the Centre seems to have irked the RBI.
- It has refused to accept Governor Urjit Patel's point that the RBI is hobbled by lack of adequate powers in regulating public sector banks.
- The second is the tussle over the RBI's burgeoning reserves, a piece of which the Centre is eyeing to bridge its fiscal gap, while the RBI resents this.
- The last is the attempt by the Centre to set up an independent payments regulator, which the RBI sees as encroachment of its turf.
- Also, the centre insisted on easing prudential norms for MUDRA and SME lending.
- With domestic banks just halfway through the process of resolving their mountain of NPAs from large corporates, it would be imprudent to increase SME loans without toning up their credit appraisal systems first.
- Centre has also demanded to relax Prompt Corrective Action rules for public sector banks, which might be fraught with risks to financial stability.
- **Concerns of centre** - The centre is upset over an RBI circular of February 12 which redefined NPAs and revised the framework for resolution.
- It is also upset that the central bank is not doing enough to ease the ongoing liquidity squeeze through extraordinary measures.
- However, the RBI argues that it lacks powers to replace managements or revoke licenses of PSBs, when questioned on regulatory gaps that led to bank NPAs and frauds.
- But it has effectively used its existing supervisory powers to plug process gaps in banks or head off ever greening of loans in recent times.
- The centre finds RBI guilty of not detecting the bad loans of banks in time or figuring out the IL&FS mess despite it being a systemically important NBFC.
- However, much of this applies to the government as well.
- As the owner of PSU banks, it needed to know what was happening and that is why it had its directors on these banks.
- As for IL&FS, apart from RBI, others were members of the Financial Stability and Development Council which is headed by the finance minister and the top shareholders of IL&FS include LIC, SBI and Central Bank of India.
- The government is also concerned with raising repo rates, since it is projected to rise its borrowings from the market in the future.
- There is an estimation of Rs 1.7 lakh crore of 'extra budgetary resources' to be raised in FY19, which will correspondingly involve higher interest payments in future if interest rates are raised.

What should be done?

- The Centre and the RBI should waste no further time in public sparring, and get back to the negotiating table.
- No regulator can work if its views are constantly questioned by the government in public.
- A better way to sort out these differences and to come to a conclusion is to have a larger debate with technical experts weighing in.
- On issues of operational autonomy, the central government needs to lay off its pressure on the RBI.
- On macro issues such as exchange rate management and RBI's dividend policy, written agreements that clearly demarcate roles and responsibilities can be thrashed out.
- The Monetary Policy Framework Agreement and the FRBM Act are good illustrations of how a mutually agreed rule-based framework can broker peace between the central bank and the executive arm of government.



- If the issues are not resolved, the tussle will undermine investor confidence and strengthens fears about institutional erosion when India is already experiencing economic turmoil.
- Thus the Centre and the central bank must talk behind closed doors and resolve their differences as mature entities, as they have done so many times in the past.

5. HEALTH

5.1 Report on Mental Health – Lancet

Why in news?

The medical journal Lancet recently published a report at the first ministerial on global mental health hosted by the UK.

What does the report say?

- Mental ill health is on the rise worldwide and it causes massive amount of disability, early deaths and fuelling cycles of poverty.
- Most people with mental health problems do not receive care, which prolongs suffering and leads to colossal societal and economic losses.
- They are also often subjected to human rights abuses and discrimination.
- No other cause of suffering has been so profoundly neglected.
- The situation in India is on par with amongst the worst country-level mental health indicators in the world.
- In India, suicide is now the leading cause of death of young people.
- Alcohol use is blatantly promoted by commercial interests and its abuse has been relegated to a moral issue to be addressed by primitive, punitive policies rather than through a public health approach.
- People with severe mental health problems languish in horrific conditions in mental hospitals or on the streets.
- They were also severely deprived from under-nutrition to neglect that affect the development of the brain in childhood.
- There are virtually no community-based mental health services in the country.

Rashtriya Bal Swasthya Karyakram

- The Scheme was launched under National Rural Health Mission to screen and manage children from birth to 18 years of age for Defects at Birth, Deficiencies, Diseases and Developmental Delays including disabilities.
- New-borns are screened for birth defects by health personnel and ASHA.
- The children in the age group of 6 weeks to to 18 are screened by dedicated Mobile Block Health Teams.
- The children identified with any health condition are then referred to an appropriate health facility for further management and linking with tertiary level institutions.
- The establishment of District Early Intervention Centre (DEIC) is also one of the components of the scheme.

What does it recommend?

- The Sustainable Development Goals (SDGs) made specific references to mental health and substance use as targets within the health goal reflects this transformative vision.
- To help achieve these targets and the SDGs, the Commission outlines a comprehensive blueprint for action.
- **Focus** - Our approach to mental health must cover its full spectrum, from day-to-day wellness to long-term, disabling conditions.
- Knowledge to promote mental health, prevent mental disorders and enable recovery has to be used to benefit entire populations.
- **Early intervention** - Mental health is the product of psychosocial, environmental, biological and genetic factors interacting with neurodevelopmental processes, especially in the first two decades of our lives.
- Because our experiences in childhood and adolescence shape our mental health for life, it is crucial that these years unfold in nurturing environments, which promote mental health and prevent mental disorders.

- **Rights based approach** - Mental health should be respected as a fundamental right by putting people living with mental health problems at the centre of planning services.
- Everyone should be entitled to dignity, autonomy, care in the community and freedom from discrimination.

How should it be achieved?

- Mental health services must be scaled up as an essential component of universal health coverage.
- Barriers and threats to mental health, such as the pervasive impact of stigma, must be assertively addressed.
- New opportunities must be enthusiastically embraced, in particular those offered by the innovative use of community health workers and digital technologies to deliver a range of mental health interventions.
- Substantial additional investments must be urgently made, with special focus on research and innovation.
- This could be made by redistribution of budgets from large hospitals to district hospitals and community-based local services to efficiently use existing resources.
- Initiatives like Rashtriya Bal Swasthya Karyakram to the Mental Health Care Act provide a robust policy foundation for realising these aspirations in India.
- A genuine partnership of a diverse range of groups from the mental health and development communities to policy makers and civil society coming together could transform mental health across the country.

5.2 The Road Accidents in India - Report

Why in news?

Ministry of Road Transport and Highways recently released “The Road Accidents in India report” for 2017.

What does the report say?

- A total of 4.64 lakh road accidents took place in 2017, of which 1.34 lakh were fatal accidents.
- The number of people who died in these mishaps stood at 1.47 lakh.
- The number of road accidents and fatalities in 2017 came down by 3.3% and 1.9%, respectively, from the previous year.
- The number of road accidents and injuries has declined in 2017 for the second consecutive year.
- **Location** - National highways accounted for 30.4% of accidents and 36% of fatalities while state highways accounted for 25% of the accidents and 26.9% of the deaths.
- Nearly 45% of mishaps and 37% of deaths took place on other roads.
- **Type of Vehicle** - Two-wheelers were involved in 33.9% of the total mishaps and almost 30% of the fatalities.
- Light motor vehicles like cars and jeeps involved in 24.5% of the accidents and 21.1% of the fatalities.
- Pedestrians amounted to 13.5% of the total fatalities, a rise of 3% from 2016.

What are the concerns?

- The report has failed to signal the quantum shift necessary to reduce death and disability on the roads.
- The remedies it highlights are weak, incremental and unlikely to bring about a transformation.
- **Responsibility** - Although enforcement of rules is a State issue, the Centre promises that it will work with the States to improve safety as a joint responsibility.
- But nothing much has changed in the ground which is reflected by the death of 1,47,913 people in accidents in 2017.
- **Rate** - The government claimed a 1.9% reduction in the number of accidents over the previous year but the data on the rate of people who die per 100 accidents show no decline.
- Also, green commuters (cyclists/pedestrians) now face greater danger on India’s roads, with a rise in fatalities for these categories of users.

- **Estimation** - The Transportation Research and Injury Prevention Programme at IIT Delhi estimates that road traffic injuries recorded by the police are underestimated by a factor of 20, and those that need hospitalisation by a factor of four.
- By that measure, the number of people who suffered injuries in 2017 could far exceed the numbers reported by the Ministry.
- **Focus** - Greater attention is being paid to the design and safety standards of vehicles in recent times.
- But such professionalism should extend to public infrastructure in the design of roads, their quality and maintenance, and the safety of public transport, among others.
- **Implementation** - Though the Supreme Court has been issuing periodic directions in a public interest petition with the assistance of the Justice K.S. Radhakrishnan Committee constituted by the Centre, there is a lack of progress in reducing traffic injuries.
- The Centre has watered down the national bus body standards code in spite of a commitment given to the Supreme Court, by requiring only self-certification by the builders.
- Relaxing this long-delayed safety feature endangers thousands of passengers.
- **Institutions** - The Road Safety Councils at the all-India and State levels have simply not been able to change the dismal record.
- The police forces too lack the training and motivation for professional enforcement.
- Hence there is an urgent need to fix accountability in the government.

5.3 HIV Estimates – NACO

Why in news?

The National AIDS Control Organisation has recently announced the latest set of HIV estimates for 2017 for India.

What is it all about?

- The HIV estimation process has used the data from two successive rounds of National Family Health Surveys (NFHS) to present the most accurate data sets for prevalence, incidence and mortality due to HIV/AIDS.
- For the first time, sub-national data at the State level has been made available on all indicators in a fairly accurate form.

What does it reveal?

- India has been reporting a progressive decline for the last 15 years.
- For the first time, NACO has announced that the new infections have increased in 2017 from 86,000 in 2015 to a little more than 87,000 in 2017.
- The trend of slowing down of the rate of decrease started since 2012 when the national response to AIDS started slowing down.
- Even the current report shows that the new infections have fallen by only 27% from 2010 to 2017 averaging a low 4% per year decrease.
- The prevalence levels, which show the total number of HIV infections in the country, have also marginally increased to 21.40 lakh.
- The mortality rates, which show the number of people who died of AIDS, have shown a significant and consistent fall, due to the highly successful treatment programmes implemented by NACO covering around 1.1 million people.

What are the reasons behind?

- The AIDS control programme is not getting full funding based on cost estimates for prevention.
- Administrative changes governing the AIDS control programme is also visible with the civil society partners getting disengaged in the implementation of prevention programmes.
- There are strong evidences presented by successive expert committees on the need to bolster prevention efforts by increasing **targeted interventions** (TI) coverage among vulnerable populations.



- But the funds have not reached agencies implementing prevention programmes and many of the TIs have closed down, leaving the beneficiaries without any prevention services.
- This made prevention programme continuing to suffer from inadequate funding and bottlenecks in fund flow.
- This has resulted in number of new infections rising in the last five years.
- Much of it is because of governments around the world declaring victory much earlier when mortality rates started falling because of higher levels of Anti-Retroviral Therapy coverage.
- External donors and UN bodies have also played their part by branding treatment as prevention and not laying adequate emphasis on primary prevention.
- India has the best evidence to show that primary prevention works, especially when it is focussed on vulnerable populations who stand a higher risk of getting infected by HIV.
- But these very programmes is suffering from funding crunch and losing its effectiveness in reducing new infection rates.
- This makes the national AIDS control programme facing the twin challenge of lack of visibility and sub-optimal funding.

What could be done?

- An alternative approach is to bring convergence with national TB control programme which is an equally large and important national programme.
- An expert committee appointed by the Health Ministry recommended specific measures to bring convergence between HIV and TB programmes which are awaiting implementation.
- Also, a strong commitment for elimination of TB by 2025 provides a great opportunity to bring in a resurgence in response to control both these dominating epidemics in India.
- There are also strong arguments to include all interventions, including control of major diseases, under the general health systems.
- But the health system in India is not in a position to achieve time-bound results in disease elimination.
- This is shown by Leprosy Elimination in India, wherein though it was achieved nationally in 2006 it has suffered a setback after the programme was merged with the general health system.
- The Supreme Court's warning about neglect of leprosy elimination after merger with health systems point to the need for a rethink on this approach.
- Elimination of major diseases like AIDS and TB will be possible only through a governance model which adopts a focussed approach with greater involvement of community-based organisations and the private sector.
- Thus the Centre adopts this approach to bring the incidence levels of HIV below the present levels in the next two to three years, so that the target of ending AIDS by 2030 could be realised.

6. INDIA AND ITS NEIGHBOURHOOD

6.1 Status of Rohingyas

Why in news?

India deported seven Rohingya immigrants who had been staying in Assam illegally to Myanmar.

Why have they been deported?

- The Rohingya Muslims from Rakhine province on Myanmar's western coast started arriving in sizeable numbers in India's northeast in late 2011.
- It was following their stepped-up persecution by the Myanmar armed forces.
- Of that, seven men were arrested in 2012 for having entered India illegally.



- They were convicted of violating The Passport (Entry into India) Act, 1920, and sent them to prison for 3 months, followed by detention pending repatriation.
- Myanmar confirmed their identities and issued them travel documents.
- The seven men requested the Myanmar embassy in India to facilitate their return.
- After reconfirming their willingness to be repatriated, India handed them over to the Myanmar authorities.

Who are illegal migrants?

- An illegal immigrant can be –
 1. A foreign national who enters India on valid travel documents and stays beyond their validity, or
 2. A foreign national who enters without valid travel documents.
- In the view of the Indian government, illegal migrants “infringe on the rights of Indian citizens” and are “more vulnerable for getting recruited by terrorist organisations”.
- Section 3(2) (c) of The Foreigners Act, 1946, gives the central government the right to deport a foreign national.
- The power to identify and deport foreign nationals who are in India illegally has been delegated to state governments, Union Territories and the Home Ministry’s Bureau of Immigration.
- Illegal immigrants who are intercepted at the border while entering India unauthorised can be sent back then and there.

What is the status of Rohingyas in India?

- As per Home Ministry data, there are more than 14,000 UNHCR-registered Rohingyas in India.
- However, security agencies estimate the number to be at 40,000.
- There are clusters of Rohingya population in Jammu, Hyderabad, and Delhi-NCR, besides the states of Haryana, UP, and Rajasthan.
- The UN says the Indian government has an international legal obligation to acknowledge the institutionalised discrimination, persecution, hate and human rights violations the Rohingya face in Myanmar and to provide them with necessary protection.

What is the status of other foreigners?

- As of December 2014, 28,356 foreign nationals were found to be overstaying illegally in India.
- Bureau of Immigration data show approximately 330 Pakistanis and approximately 1,770 Bangladeshi nationals have been repatriated during the last three years.
- In 2014, West Bengal had arrested 3,724 foreign nationals under various sections of The Foreigners Act, 1946, and for violating Immigration Control Rules and Regulations, followed by Tripura (1,713), Tamil Nadu (639), and Maharashtra (228).
- In 2017, the Bangladesh government verified the nationalities of 52 individuals lodged in various detention camps in Assam, and issued travel documents for their repatriation.

What are the measures taken by the government?

- India is not a signatory to the 1951 United Nations Convention and 1967 Protocol Relating to the Status of Refugees.
- It also does not currently have a national law on refugees.
- In 2011, the Union government circulated to all states and Union Territories a Standard Operating Procedure to deal with foreign nationals who claimed to be refugees.
- Some cases can be recommended by states or Union Territories to the Union Home Ministry for a long-term visa (LTV) after due security verification.
- These are cases that can be prima facie justified on grounds of well-founded fears of persecution on account of race, religion, sex, nationality, ethnic identity, membership of a particular social group or political opinion.

- LTV-holders are allowed to take up private-sector employment and enrol in any academic institution.
- Also, the Mission Mode Project on Immigration, Visa and Foreigners Registration & Tracking (IVFRT) will facilitate improved tracking of foreigners.
- It will integrate and share information captured at Indian missions during the issuance of visas, during checks at Immigration Check Posts (ICPs), and at Foreigners' Regional Registration Offices (FRROs).

6.2 Concerns in Indo-Pak relations

What is the issue?

Economic integration of South Asia has remained persistently stunted by the hostile political relationship between India and Pakistan.

What does the stats show?

- The South Asian region was among the first to recover from the global financial crisis with a growth rate of 8% in 2009.
- However, trade within the region has hovered around 5% of the region's total trade.
- This has occurred in a region that has one of the most dynamic economies of the world, with the Indian economy averaging growth of over 7% over the past 15 years.
- The World Bank study, *A Glass Half Full*, also highlights the fact that the gap between actual and potential trade for South Asia has been widening since 2001.

Where does the relationship stand?

- Economic integration of South Asia has remained persistently stunted by the hostile political relationship between India and Pakistan.
- This is despite the economic size and physical proximity of the countries, rising population, historical and linguistic proximity and their higher participation in regional or bilateral free trade agreements (FTAs).
- As a result, South Asia has been unable to translate its inherent advantages in achieving economic integration in the region.
- The conflict between India and Pakistan has persisted for seven decades despite a long history of confidence building measures (CBMs) between the two countries.
- It ranges from no war pacts, agreements for non-interference in bilateral affairs, regular communication through establishment of military and heads of state hotlines and economic CBMs.
- However, a CBM announcement is followed soon after by some conflict escalation.
- Pakistan's intention recently to take forward the bilateral relationship to a "talk and trade" mode was soon followed by the killing of Indian security personnel at the border.
- Hence the talks were called off even before they started.
- The CBMs, military or economic, have therefore not altered the fundamental nature of the India-Pakistan bilateral relationship that is beset with hostility and conflict.
- Since these are two largest economies of the region, the conflict-ridden relationship dominates the South Asian landscape.

How does it translate into the economic sphere?

- India-Pakistan conflicts has to be seen in multiple dimensions such as the one within these countries, with third country (as with Afghanistan), in the spill over effects of civil conflicts and in the anticipated conflicts.
- While actual conflict endangers trade transactions, expectation of conflict further raises risks of trading within the conflict-prone region.
- This increases the trade/ transaction costs through -
 1. increased possibilities of currency instability
 2. breach of contract



3. low institutional credibility
 4. increased government restrictions
- These pave the way for increased tariff, para tariff and non-tariff barriers between the governments, thus greatly reducing the scope for profitable trade.
 - Studies have shown that both actual and anticipated conflict, reduces trade by over 65% in general and by 75% in South Asia.
 - Conflict costs will impinge on common borders which negates the positive impact of geographical contiguity and the cost is higher if the trading pair is also in strategic rivalry as are India and Pakistan.
 - Furthermore, when countries make an attempt to establish trading arrangements in spite of unresolved and enduring conflict, the outcome of these is close to null.
 - Both **SAPTA**, the SAARC Preferential Trading Arrangement, and **SAFTA**, the South Asian Free Trade Area Agreement, were rendered ineffective on account of the persistent conflict between India and Pakistan.
 - In case of SAPTA, the intensification of the bilateral tensions and the war in Kargil led to the suspension of the fourth round of negotiations in 1999.
 - In case of SAFTA, Pakistan's stance of a short positive list of tradable commodities for Indo-Pak trade violated the spirit of the agreement and prevented its effective implementation.
 - Goods imported under the sensitive (negative) list maintained under the SAFTA are liable to import tariffs, which make these goods costly.
 - Shifting items from the sensitive list to the positive list would do away with duty impediments, thereby boosting trade.
 - India decided to reduce the number of items in the sensitive list for SAARC countries, especially Pakistan, when the latter planned to grant India the most-favoured-nation (MFN) status in 2012.
 - But neither the granting of the MFN status to India nor a more politically acceptable non-discriminatory market access (NDMA) for India has happened till now, though India had accorded the MFN status to Pakistan in 1996.

What should be done?

- The World Bank Report says intra-regional trade in South Asia has the potential to increase three times its present levels.
- The trade between India and Pakistan has the potential to increase from its current insignificant \$2 billion to \$37 billion.
- Global Economic Review also predicted that the ratio of potential to actual trade between India and Pakistan to be the highest among South Asian nations.
- But the present bilateral relations remain a challenge that may not be easy to overcome in the short or medium term.
- Thus, it may be wiser to focus on alternative formulations like sub-regional such as the BBIN (Bangladesh, Bhutan, India, Nepal) or inter sub-regional initiatives such as the BIMSTEC (Bay of Bengal Initiative for Multi-Sectoral Technical and Economic Cooperation).
- With India in the lead, these arrangements can take forward the interested partners from South Asia on a more feasible and profitable path of economic integration and trade enhancement.

7. BILATERAL RELATIONS

7.1 India-Russia Annual Summit

Why in news?

India-Russia annual summit was recently held in India between Indian Prime Minister and Russian President.

What are the key outcomes?

- **Defence** - The contract for five S-400 ‘Triumf’ Long Range Surface to Air Missile System was concluded.
- This agreement for the estimated \$5.43 billion is one of the biggest defence deals in the recent times.
- Deliveries of S-400 will begin in 24 months, at the end of 2020.
- As per procedure, India would pay about 15% in advance, likely through the rupee-rouble exchange.
- India resisted concluding other major defence deals with Russia on helicopters, stealth frigates and assault rifles.
- These were reportedly ready but needed further negotiations.
- **Trade** - The two leaders addressed a business summit as an attempt to diversify ties and increase bilateral trade.
- Currently at below \$10 billion, the two countries have set a target of \$30 billion bilateral trade by 2025.
- Much of the fresh momentum in bilateral engagement will come from the energy sector.
- **Others** - Apart from S-400, the two sides concluded eight other agreements as part of the summit.
- A space cooperation arrangement to put an Indian in space, and an action plan for a new nuclear plant were signed.
- Other agreements on railways and agriculture were also finalised.



What is the significance of the summit?

- India gives top priority to relations with Russia, and it has become more relevant in the rapidly changing world.
- The visit of Russian President to India reaffirmed Russia's place as India's biggest and most important defence partner.
- The S-400 is not merely military equipment for Russia but a tool for geopolitical strategy.
- The deal comes as India's assertion of “strategic autonomy” in its foreign policy and desire for multipolarity.

What are the challenges?

- The announcement of the S-400 ‘Triumf’ deal could attract sanctions from the United States.
- The US's Countering America's Adversaries Through Sanctions Act penalises defence purchases from Russia, Iran and North Korea.
- The U.S. Congress has passed the conference report on National Defense Authorization Act-2019 (NDAA-19), providing a modified waiver to CAATSA.
- However, President Trump will need to grant his approval for helping India evade American sanctions.
- The U.S. said that any waiver would be considered only on a “transaction-by-transaction basis” and not on a “country” basis.
- It also clarified that under CAATSA, it is payments and not signing of deals that triggers the sanctions.
- Given this, it can have serious implications on India's relationship with the US.

7.2 Rafale Deal Controversy.

Why in news?



There are many doubts that have raised with the modified rafale deal and it needs to be addressed.

What is the deal all about?

- The governments of India and France had entered into an MoU in 2012 under which India would buy 126 Rafale twin-engine multi-role fighter aircraft.
- The price per aircraft discovered through an international bid opened on December 12, 2012, was Rs 526.10 crore.
- The manufacturer Dassault would supply 18 aircraft in 'fly away' condition.
- The remaining 108 aircraft would be manufactured in India at the Hindustan Aeronautics Limited's facilities in Bengaluru using Dassault technology that would be available to HAL under a Transfer of Technology agreement.
- That signed MoU was cancelled and the Prime Minister announced the new 'deal' on 2015.
- Under the modified deal, the number of aircrafts to be purchased was reduced to 36 from 126 aircrafts as per the previous agreement.
- All the 36 aircrafts were accepted to bought under "flyaway" condition that left out the possibility of "Make in India" component.

What are the concerns?

- The decision taken to cancel the earlier MoU and enter into a new agreement was not made public by the government.
- **Quantity** - Under the new agreement, India will buy 36 aircraft at an undisclosed price.
- The Indian Air Force has 31 squadrons now and said it needed 42 squadrons of fighter jets.
- But the government decide to buy only 2 squadrons (36 aircrafts) when the need was for 7 squadrons (126 aircrafts).
- **Price** - The government is purchasing the same aircraft from the same manufacturer under "the same configuration".
- But the price per aircraft under the new agreement is Rs 1,670 crore as disclosed by Dassault which is a three-fold increase in quoted price from the previous agreement.
- But the government claims that the price of the aircraft under the new agreement is "cheaper" by 9%.
- Still, the government is buying only 36 aircraft and not all the 126 aircraft offered by Dassault.
- **Purchase** - The new agreement was presented as an "emergency purchase".
- But the schedule of delivery of the first aircraft is stated as September 2019 (four years after the agreement) and the last only in 2022.
- This raised concerns on how the deal qualified to be an "emergency purchase".
- **Transfer of technology** - HAL has experience of 77 years and has manufactured a variety of aircraft under licence from the respective manufacturer.
- When entering into the new agreement, there was no mention of Transfer of Technology from Dassault to HAL.
- The absence of transfer of technology (ToT) component creates void on the role guaranteed for any Indian public sector company, including HAL.
- **Offset supplies** - Every defence purchase by India imposes an 'offset' obligation upon the vendor.
- Dassault has admitted that it would have an offset obligation to the tune of Rs 30,000 crore against the sale of 36 aircraft.
- HAL is a public sector undertaking and it had entered into a 'work share' agreement with Dassault on 2014, which was also qualified to be the offset partner.
- But France has disclosed that the Government of India had suggested the name of a private sector company as the offset partner and France and Dassault had "no choice" in the matter.

- Recently, Defence Minister of France laid the foundation stone for the factory of the private sector company at Mihan, near Nagpur, where the offset supplies would be manufactured.
- Dassault and the private sector offset partner had also disclosed in a press release that their joint venture “will be a key player in the execution of offset obligations”.
- However, Government of India has denied that it had suggested the name of a private partner.
- There were also recent reports of disparaging remarks made against HAL by the government which raised the doubts regarding their intention to privatising or shutting down operations of HAL.
- All these concerns warrant the need for government to order an enquiry into the matter and make details of the deal public.

8. INTERNATIONAL ISSUES

8.1 United States-Mexico-Canada Agreement (USMCA)

Why in news?

- The U.S., Canada and Mexico arrived at a revised trade agreement, replacing the North American Free Trade Agreement (NAFTA).
- Click [here](#) to know more on NAFTA.

What is the new deal?

- The new deal will be known as the United States-Mexico-Canada Agreement, or USMCA.
- The USMCA makes changes to the earlier NAFTA that had some concerns.
- It will thus replace the quarter-century-old North American Free Trade Agreement (NAFTA).
- USMCA does not do anything new to promote the cause of free trade among the North American nations.
- But it achieves the objective of avoiding any significant damage to the international trade system.

What are the key changes?

- **Canada** - There are changes in production quotas applied to Canada’s dairy industry.
- These quotas were intended to help protect the industry by restricting supply.
- But Canada will now have to allow American dairy producers to compete against locals.
- This move will largely favour the Canadian consumers.
- **Cars and Trucks** - The goal of the new deal is to have more cars and truck parts made in North America.
- Starting in 2020, to qualify for zero tariffs, a car or truck must have 75% of its components manufactured in Canada, Mexico or the US.
- This is a substantial boost from the current 62.5% requirement.
- Starting in 2020, cars and trucks should have at least 30% of the work on the vehicle done by workers earning \$16 an hour.
- This is about three times what the typical Mexican autoworker makes.
- The move addresses the skewed location preferences problem due to the lower wages in Mexico.
- Besides these, Mexican trucks that cross the border into the US must meet higher safety regulations.
- **Dispute settlement** - The U.S. agreed to retain Chapter 19 and Chapter 20 dispute-settlement mechanisms as a compromise.
- Chapter 19 allows the 3 countries to challenge one another’s anti-dumping and countervailing duties before a panel of representatives from each country.
- This will help Canada and Mexico deal with protectionist duties imposed by the U.S. against their exports.
- **Intellectual Property** - The new IP chapter contains more-stringent protections for patents and trademarks.



- These include that for biotech, financial services and even domain names.
- These updates were necessary given that the original agreement was negotiated 25 years ago.
- **Drugs** - U.S. drug companies can now sell pharmaceuticals in Canada for 10 years before facing generic competition.
- That's up from 8 years of so-called "market protection" now.
- **Review** - The USMCA stipulates that the three nations will review the agreement after six years.
- If all parties agree it's still good, then the deal will continue for the full 16 year period.

What are the concerns?

- Not all the amendments are very favourable to the prospects of free trade.
- Many are simply hard compromises that Canada and Mexico may have made just to defuse trade tensions with the U.S.
- E.g. Canada giving greater market share to U.S. dairy farmers
- Much like other free trade deals, the USMCA also attempts to micromanage trade.
- It seems to be benefitting only specific interest groups at the cost of the overall economy.
- E.g. the new labour regulations and rules of origin will add to the cost of production of goods such as cars
- This could make them uncompetitive in the global market.
- Also, the minimum wage specification will make North America a tough place to do business.
- The agreement does away with resolutions through multilateral dispute panels for certain sectors.
- So foreign investors may now have fewer protections from unfriendly local laws.

What does it mean for India?

- The agreement is potential to end up as a double-edged sword for the U.S.'s major trading partners including India.
- Mr. Trump signalled of resetting trade ties with the European Union, China, Japan and India.
- Terming India "the tariff king", he said it had sought to start negotiations immediately.
- India's trade negotiators now have the task of ensuring India's exporters the access to a largest market for its services and merchandise.

8.2 Free and Open Indo-Pacific strategy

What is the issue?

US administration is pushing the Free and Open Indo-Pacific (FOIP) strategy as its major economic initiative.

What is the aim?

- Many observers consider it as an initiative for gathering an anti-China alliance.
- The impression of the FOIP being a US-led anti-China alliance was strengthened by the existing security groupings like the Quad involving US, Japan, Australia and India.
- But the impression in itself could create exactly the same problems for it as the BRI is suffering from.
- Several critics of the BRI have argued that availability of alternative sources of financing would have reduced the dependency of smaller countries on Chinese funds.
- They further argue that a multi-country initiative such as the FOIP can make a difference.

Who will be the potential members?

- From the US perspective, members would include its military partners in the Asia-Pacific region, such as Japan and Australia, as well as a major strategic partner like India, whom the US recognises as a defence partner.



- India's inclusion in the US FOIP is inevitable, given the US' visualising of Indo-Pacific as a geography engulfing the Indian Ocean.
- Japan, Australia and India are clearly the three most important strategic allies of the US in Asia.
- Any US plan to counterbalance Chinese influence particularly the ambitious Belt and Road Initiative (BRI) requires the active support of all the three countries.

What is the problem with BRI initiatives?

- Poor Chinese diplomacy and lack of substantive engagement with partner countries.
- Opaque project financing terms
- Demand of concession in strategic autonomy
- Strong arming several small countries to unreasonable terms.

How far FOIP is similar to BRI?

- **Non-inclusiveness** - The FOIP could hardly avoid being identified as an anti-China military grouping.
- An 'inclusive' FOIP is inherently counter-intuitive for a US administration that prefers handling economic relations bilaterally.
- **Market Access** - US has announced strategic investments worth \$113.5 million in the Indo-Pacific, with particular emphasis on expanding digital connectivity, energy security and sustainable infrastructure.
- Cooperative projects were announced such as the 'Strategic Trade Authorisation Tier 1 Status' to India for export of high-technology items by American firms and LNG agreement with Japan.
- These steps indicate efforts by the US administration to secure greater market access for American businesses in key regional markets such as India and Japan.
- Such market access in recipient countries is focused on areas that can provide American businesses control over production of strategic assets like energy.
- This is exactly the same reason the Chinese investments in the BRI are criticised for.
- **America First** - While advancing 'Made in China' is a core objective of the BRI, 'America first' appears to be a similar objective for the FOIP.

Can it materialise?

- India and Japan, notwithstanding their multiple issues with China, is not keen on committing to a distinct anti-China regional agenda.
- Both of these countries need to keep working with China in their own economic and global interests.
- India has emphatically asked for an 'inclusive' Indo-Pacific, while not committing to a US-Japan-Australia infrastructure partnership.
- As an economic project, it needs to establish intentions of pursuing collective benefits for the region, as opposed to just those of American businesses.
- Otherwise, it could well turn out to be an initiative that begins looking biased in much the same way as the BRI.

8.3 Creating Charter cities

What is the issue?

There are growing ideas on the creation of "charter cities" around the world and it needs a re-look.

What are charter cities?

- A charter city is a newly created city governed by a country other than the one within whose borders it exists.
- A developing country can host the "Charter City" in its territory by "delegating" some of the responsibilities of administration to a developed country.



- The host country is required to enact a founding legislation or a charter that lays down the framework of rules that will operate in the new city.
- It will be made as built-from-scratch city with distinct rules that foster innovation and economic growth.
- However, its residents of the charter city would remain citizens of the home country.
- These are also characterised as “start-up cities” that experiment with reforms by breaking out of the existing state system.
- With the right rules, the city will naturally grow as residents arrive, employers start firms, and investors build infrastructure and buildings.
- The charter city holds the prospect of rapidly instituting rules consistent with economic development in an area that might otherwise take decades to do so.
- It could offer almost overnight the chance of a better life for the citizens of an impoverished country for whom long-distance immigration is too costly.

What are the concerns?

- The idea of “Charter Cities” should be of interest to developing countries such as India grappling with strategies for rapid urbanisation.
- But the initiative is criticised as a disguised version of neo-colonialism, wherein developing countries will be required to relinquish sovereignty over certain territories in exchange for economic growth.
- People do not have the right to vote to decide how the city is run which goes against the basic principles of democracy and citizenship.
- Setting up of charter cities, which people could enter or leave at will, might lead to volatile migration patterns.
- After investing in new infrastructure, charter cities could see their residents leaving as new, more attractive, reforms are proposed somewhere else.
- Without deep cultural and family ties to a city, it would be easier to leave than ever before.
- Finding space for Greenfield charter cities able to accommodate millions of new residents is also a challenge.
- Charter cities would also need to invest in the transport systems and infrastructure that could keep residents connected to bigger cities and it would need to be in reasonable proximity to established centres.
- The first attempt to introduce “Charter Cities” in Madagascar in 2008 collapsed when the President who favoured the idea was greeted by violent protests and finally removed in a coup.
- The next attempt, in the Honduras, also failed as the Supreme Court there, in 2012, declared the creation of “Charter Cities” to be unconstitutional.

What is the case with India?

- Given its neo-colonial trappings and poor track record, “Charter Cities”, as an idea, is fundamentally unattractive for a country such as India.
- India’s experience in creating new cities with parallel rules and governance systems has also been fraught with conflicts.
- Lavasa, a city near Pune which was developed by a private company, has been caught up in environmental disputes for many years.
- Despite the creation of Palava City in Dombivali, the residents still need quick and easy access to Mumbai in order to find some form of work.
- The Dholera Special Investment Region and Gujarat International Finance Tec-City have not really taken off.
- The various investment regions housed within the Delhi-Mumbai Industrial Corridor have also made slow progress.
- The initial idea of creating 100 new cities as “smart cities” has been reformulated as a programme for redeveloping merely a small portion of existing cities.

8.4 Migrant Caravan - Central American Migration

Why in news?

A trail of migrants has been moving northwards from Honduras and Guatemala, towards Mexico and the U.S., in the recent days.

Is this the first time?

- Migration of Central Americans to Mexico and the US has taken place for decades.
- They are mostly economic migrants seeking escape from poverty in places like Honduras.
- Otherwise, they are people fleeing persecution, trafficking or gang violence in the region.
- Earlier this year, a caravan from Honduras had reached the Mexico-US border travelling 3,500 km.
- It was organised by a rights group called Pueblo Sin Fronteras (people without borders).

Why is the current one unique?

- In previous such caravans (a group travelling together), members numbered in the hundreds and dissipated along the way or upon reaching the border.
- However, a migrant caravan of such a scale and organised nature, as the current one, is relatively new.
- It originally numbered fewer than 200 people, grew to 1,000 by the time it had crossed into Guatemala.
- It is now estimated to have reached more than 7,000 migrants.
- The caravan was formed in San Pedro Sula in Honduras, known for high levels of violence.
- It has also gathered momentum from media attention and support from advocacy groups.
- But so far, no group has claimed responsibility for organising it.

What is the response?

- Americans are and will probably always be a nation of immigrants.
- As President, Barack Obama took a hard line on undocumented worker deportations.
- But he took a moderate stance when it came to delaying the deportation of childhood arrivals, and policed borders with a relatively light touch.
- Contrarily, Trump has made every effort to deliver on his radical campaign promise to ban Muslims from entering the U.S.
- The recent “migrant caravan” had led to warnings from Trump.
- He had alerted border authorities about a “national emergency”.
- He has also warned of criminals crossing over, economic dislocation and job loss.
- It was also said that the US would begin curtailing aid to Honduras, Guatemala and El Salvador.
- Guatemalan President Jimmy Morales had dismissed Trump’s threats, and rejected constraints placed on foreign aid.
- The Mexican government deployed about 700 National Police officers to the border and issued warnings to the caravan’s participants.

8.5 Replacement of Prime Minister in Sri Lanka

Why in news?

Mahinda Rajapaksa was appointed as the Prime Minister of Sri Lanka recently after the collapse of the governing coalition.

What is the overview?





- The government of Sri Lanka is led by the president of the country who is the head of state and commander in chief of the armed forces.
- The presidential system is determined by the Sri Lankan constitution and the current constitution of Sri Lanka is the third constitution since the country got independence in 1948.
- The Sri Lankan government comprises the president and legislature that are elected on a national level, and the elections are held after every six years.
- The President of Sri Lanka is elected by the people to serve a term of five years.
- The elected president who is the head of cabinet is also responsible for appointing cabinet ministers, who are responsible to Parliament.
- The deputy to the President in Sri Lanka is the prime minister who is also the leader of the ruling party in Parliament.
- The President is responsible for dissolving the current cabinet and appointing a new one in the event that a parliamentary no confidence vote is passed.
- The president has also the power to suspend, summon, end a legislative session and dissolve Parliament at any time if it has served for one year.
- The Sri Lanka has a multi-party system where there are two dominant parties which includes the New Democratic Front (NDF) and the United People's Freedom Alliance (UPFA).

What are the present events?

- Rajapaksha served as the president for a period of ten years in Sri Lanka from 2005 to 2015.
- He is a fierce political opponent of the current President Sirisena.
- Sirisena had defeated Rajapaksha in the Presidential election of 2015.
- Sirisena's SLFP and Wickremesinghe's UNP had come together to form the Unity Government in August 2015 following the general elections in the country.
- The ousted Prime Minister, Wickremesinghe also survived a no-confidence motion in the country's Parliament that was brought by the supporters of Rajapaksa before.
- However, Mr. Sirisena's fast-deteriorating relationship with Mr. Wickremesinghe was an open secret, and there were indications that he could be negotiating a possible partnership with Mr. Rajapaksa.
- Hence, Sirisena has recently decided to withdraw his faction from the ruling coalition as a sudden and secret manoeuvre.
- He replaced Prime Minister Ranil Wickremesinghe with former President Mahinda Rajapaksa which has plunged the country into a political crisis.
- Mr. Wickremesinghe has termed his replacement "unconstitutional" and maintains that he remains Prime Minister.
- He has also challenged the Rajapaksa-Sirisena combine to take a floor test in the 225-member House.
- In return, the president suspends the parliament, which is seen to have exposed his own insecurity about garnering the required strength.
- All this has come at a time of economic fragility, with a plummeting rupee, soaring unemployment and rising living costs in the country.

What are the concerns?

- An extra-parliamentary power struggle, with the usage of illegal means, heightens the risk of political thuggery and unrest.
- Mr. Sirisena's appointment of Mr. Rajapaksa even before conducting the floor test on the Parliament is a blatant abuse of his executive powers.
- The President's actions betray an utter disregard for the parliamentary process, guided by narrow political interests.



- He has put democracy in serious peril in resorting to these emergency measures.
- He has also let down Sri Lankans, including a sizeable section of the Tamil and Muslim minorities that backed him in the critical 2015 election.
- Sri Lanka is still recovering from the violence and bloodbath during its nearly three-decade-long civil war and has been grappling with the economic and social challenges in its aftermath.
- The Unity Government had promised to put the country back on the path of democracy, after a decade of Mr. Rajapaksa's authoritarian rule.
- But the recent episode shows that Sri Lanka cannot afford to recede from the democratic space that opened up with the coalition.
- Desire of the president to consolidate power by hook or by crook is extremely unfortunate.
- Though much damage has been done already, a fair vote must be ensured when Parliament reconvenes to ensure a stable government.

G.S PAPER III

9. Economy

9.1 A Glass Half Full – World Bank Report

Why in news?

World Bank released 'A Glass Half Full: The Promise of Regional Trade in South Asia' report recently.

What does it reveal?

- The report estimates India's potential trade in goods with South Asia at \$62 billion against its actual trade of \$19 billion.
- It said the trade between India and Pakistan is \$2 billion but without trade barriers, this could be \$37 billion.
- Intra-regional trade in South Asia is negligible and stands at a mere 5% of the region's total trade.
- The report recommends an approach of **open regionalism**, and views intraregional trade as complementary to deeper global integration.
- India can play a critical role in regional cooperation for mutual economic and welfare gains.
- It highlights two specific examples of cooperation in the region that sheds light on both the barriers and the opportunities related to regional trade and connectivity.
- One is the setting up of **borders haats** by India and Bangladesh, which enabled small-volume trading among local communities on both sides of the border.
- Another is the liberalization of **India-Sri Lanka air services**, which has improved connectivity, reduced air fares, increased passenger traffic and air cargo volume.
- Both serves as a model for an incremental approach towards deeper trade cooperation in the South Asian region.
- Deeper regional trade and connectivity can reduce the isolation of Northeast India and will give Indian firms better access to markets in South Asia and East Asia.
- It will also allow these regions to substitute fossil fuels by cleaner hydropower from Nepal and Bhutan.
- Indian consumers will also gain from availability of greater variety of consumer goods at cheaper prices.

How should India's trade relations progress?

- **With Bangladesh** – India is already selling power and pharmaceuticals and it is building a railway line through the country that will cut the distance to our north-eastern States.
- Local border markets are bolstering cross-border trade between communities and spurring mutual trust.
- India's automobile manufacturers like Tata Motors and Ashok Leyland play a major role there and there is a possibility of controlling a sizeable chunk of the Bangladesh commercial vehicle market.

- However, Indian auto manufacturers face competition from the Japanese who sell refurbished vehicles in the country.
- Large numbers of medical tourists also arrive from Bangladesh and they account for a large chunk of medical revenues, especially in Kolkata.
- **With Sri Lanka** – According to the World Bank study, both sides operated 147 flights a week to 11 Indian destinations in 2017.
- Sri Lankan recently offered Indian visitors visas on arrival which had a huge impact on the island nation's tourism industry.
- However, it did not demand reciprocal visa on entry rights, which a more security-conscious India might have been reluctant to grant.
- This made Indians to move on to the top of tourist arrivals to the island nation from ninth position.
- It is also said to be considering visa-free entry for Indians and Chinese in the near future.
- **With Nepal and Bhutan** – India-Nepal relationship has always been fairly open, but in the last three years it has soured.
- India is getting hydroelectric power from Bhutan and looking at similar arrangements with Nepal, which could allow us to substitute more fossil fuels with cleaner hydro-power.
- **With Pakistan** - Small quantities of trade in cement and agri-products reveals meagre trade potential between the two countries.
- The Pakistanis make tractors and also have a large two-wheeler and auto-components market.
- But India, which has a highly developed auto-components industry, contends Pakistani auto-components are of inferior quality and shouldn't be allowed in for now.
- Hence, tariffs need to be harmonised for large-scale trade to take place.

9.2 2018 Nobel Prize in Economics - Relevance for India

What is the issue?

The ideas of this year's Nobel Memorial Prize in Economic Sciences are relevant for India in terms of handling its growth.

What were the prizes awarded for?

- The Nobel Prize for this year has been awarded to two economists in two different fields.
- William Nordhaus has worked on climate change and economic growth.
- It is more on the 'negative spillover' of emissions and damage to the environment as a result of growth.
- Paul Romer had worked on innovation and growth and is on the 'positive spillovers' of knowledge and technology.
- Notably, both works were related to economic growth.

What are the key ideas of Nordhaus?

- **Observation** - As the world strives to bring about high growth, it tends to damage the environment.
- This, in turn, comes back to haunt people and retard future growth.
- E.g. land gets less fertile due to excessive use of fertilisers and overgrazing
- Carbon emissions affect health, damage the ozone layer, cause erratic rainfall, affect ocean life, etc.
- **Measures** - Nordhaus hence spoke of 'DICE' ('Dynamic Integrated model for Climate and Economy') as the way forward.
- The obvious solution is a carbon tax, which is now quite popular in the world.
- It discourages emissions or makes entities use better technologies that lower such emissions.
- **Concerns** - The problem here is that countries, at times, make such compromises for short-term gains.

- Also, the externalities caused by damaging the environment are often assumed to be everyone's problem and not just that of the nation.
- Given this, carbon tax is a softer option that may not really bring an end to the polluting process.
- It only increases the cost of damaging the environment, which will be passed to the consumer.
- **Way forward** - Outright bans are the only way out.
- There should ideally be ban on the use of certain material or technology that damages nature.
- Importantly, this should be agreed upon by all the countries.
- It is important here for government intervention as the market system is less likely to ensure such a solution.

What are the key ideas of Romer?

- **Argument** - Romer talks of a positive stimulus to growth, which is based on knowledge or technology.
- This is logical because across countries technology has been the differentiating factor in the strategies pursued for higher growth.
- Evidently, going by this, the African countries remain slow-movers in terms of growth.
- The East Asian economies were able to gallop on the back of innovation.
- In fact, a lot of progress in India can be attributed to innovation.
- E.g. the Green Revolution in agriculture, the IT revolution, etc
- An interesting observation by Romer is that when technology brings about growth, it is non-exclusive.
- This is because the benefits do percolate to other companies and countries.
- **Measures** - There is thus the need for Research & Development subsidy to be given by governments.
- The power of new ideas is quite supreme and cannot be contested.
- So here, one can leave it to the market to drive such innovation as it is intrinsic to the business models that focus on growth.

What are the apprehensions?

- The works of the two winners raises a key question regarding the link between technology and climate change.
- For innovation to succeed, it is hard to ensure that such technology is consistent with sustainable growth.
- E.g. the technology of mobile phones has brought in a broader debate of radiation emissions
- Here the tenets of Nordhaus and Romer would collide.
- Another concern is that if technology which becomes labour-displacing can really lead to meaningful higher growth.
- Addressing this is crucial especially in labour-surplus economies.
- Also, the practical feasibility of innovations in several countries in Africa and South Asia where there is power shortage is uncertain.

What could be done?

- For India, the ideas of both these economists are very relevant.
- Innovation must be tailor-made to suit local requirements so that it does not disturb the ecosystem.
- When talking of inclusive growth and creation of jobs, the focus has to be on using innovation in a balanced manner.
- The climate change issue is more challenging; there needs to be internal rules to ensure that environment is protected.
- Laws need to be in place to ensure that there is a proper balance of technology with carbon emissions.

9.3 RBI's Stance on Data Localisation Rules

Why in news?

The government and the RBI are firm on the October 15 deadline for compliance on data localisation standards.



What was RBI's order on data storage?

- Data localisation is storing of data on a device physically present within the borders of the country where the data was generated.
- RBI, in April, 2018, gave 6 months time to global payment companies to store transaction data of Indian customers within India.
- The data should include the full end-to-end transaction details, information collected/carried/processed as part of the message/payment instruction.
- The requirements apply as those mentioned in the draft data protection bill and draft national e-commerce policy framework.

What was the demand?

- Global financial technology companies have reportedly sought an extension to the October 15 timeline, with demands to adopt a soft stance on data localisation.
- But the RBI and the government did not favour any extension of the deadline.
- The government has also ruled out data mirroring as an option.
- Foreign payment companies had asked the RBI to allow data mirroring which would allow them to store a copy of the data overseas as well.

Why is it being opposed?

- Any move to restrict all cross-border data flows could be counterproductive, on becoming a trade barrier.
- The norms could have negative impacts on the ability of companies to do business in India.
- Especially, the U.S. warned that India's policy on the issue will adversely affect American businesses in the country.
- It may undermine India's own economic goals and may not likely improve the security of Indian citizens' data.
- It could also break up the Internet if every country in the world insists on keeping data within its territory.

What is RBI's rationale?

- The move was to ensure better monitoring of payment service operators.
- Data localisation would offer supervisory access to data stored with these system providers.
- It also gives access to data stored by their service providers/ intermediaries/third party vendors and other entities in the payment ecosystem.
- National security and data sovereignty are other reasons for data localisation rules.
- As, it is possible that data could be indicted if it is stored on American servers and India faced US sanctions.

What are the limitations to data localisation?

- **Global players** like banks, e-commerce majors, fin-tech service providers and credit card companies prefer to store and process data at one or two global centres.
- So moving processes implies higher costs and disruption for them.
- New teams must be hired and trained, and security procedures have to be reviewed and modified.
- **Local infrastructure** in India suffers from severe deficiencies.
- Indian data-transmission speeds are slow by global standards.
- Server capacity is low and costs are high, and likely to rise as demand is artificially boosted.
- So RBI's insistence may lead to a situation where smaller payment companies stop offering services in India.
- It will also impose higher costs on the start-up ecosystem since any Indian start-up will pay higher costs to include payment options.
- **Legal** - The Srikrishna Committee recommendations on data protection are now only open for public feedback.
- So as of now, India neither has a functioning data protection law nor adequate security standards in practice.

- Evidently, there have been instances of massive leaks and hacks of sensitive information, including payment records.
- **Surveillance** - Law and order departments and security agencies currently operate in a legal vacuum, making surveillance another grey area.
- They can search and survey all sorts of digital data without any checks or balances.
- Indeed, there is evidence that foreign intelligence agencies also collect a massive amount of Indian data and meta-data.

How is it elsewhere?

- Data localisation is not a new concept but has picked up pace after 2013.
- It is when America's National Security Agency contractor Edward Snowden leaked classified documents.
- It showed how the US government had accessed data to conduct surveillance on foreign allies.
- Since then, countries like Germany have taken steps to ensure that sensitive data stay within their borders.
- Many other countries like Russia and China have very stringent laws around data localisation.
- It is largely driven by the fear of losing critical data to hackers and spy networks of rival countries, as well as systemic risks during times of conflict.

9.4 India and Human Capital Index

Why in news?

The World Bank has launched a first-of-its-kind index called the Human Capital Index (HCI).

What is HCI all about?

- Human Capital Index (HCI) is been brought out by World Bank, which is first of its kind index.
- The HCI is based on five parameters child survival, school enrolment, quality of learning in schools, healthy and safe environment for growth, and adult survival for each of the 157 countries it mapped.
- These parameters were chosen because studies show that they are closely linked with a population's productivity.
- For each country, the HCI value ranges between 0 and 1 and shows how far below its potential a country performs.

What are the findings of the report?

- Singapore topped the list with an HCI score of 0.88, followed by the Republic of Korea and Japan, jointly at 0.84.
- India was ranked a lowly 115 with an HCI score of 0.44.
- India also lags other comparable countries and neighbours such as Bangladesh, Indonesia, Nepal and Malaysia.
- HCI ranked India behind regions such as West Bank and Gaza, which have been suffering conflict for decades.

What are the concerns spotlighted on India?

- The HCI report stated that India's score is lower than the average for its region and income group.
- As a result, be it health variables such as stunting and wasting or enrolment in schools and quality of academic achievements, India lags most of its peers.
- The report points out that the productivity of India's population is just 44 per cent of what it could be.
- From a policy perspective, it means that business-as-usual will cost India 56 per cent of its income in the long run.
- Thus India's human capital is not properly developed is a fact that has been revisited by numerous reports and surveys, both national and international.

9.5 Independent Payments Regulatory Board

Why in news?



The RBI has opposed the government's proposal to set up a separate and independent regulator for the payments industry in the country.

What was the proposal?

- An inter-ministerial committee was earlier set up by the Department of Economic Affairs.
- It was tasked to finalise amendments to the Payment & Settlement Systems (PSS) Act, 2007.
- **Recommendations** - The committee proposed the establishment of an Independent Payments Regulatory Board (PRB).
- The aim is to foster competition and consumer protection, systemic stability and resilience in the payments sector.
- It also recommended having a government-appointed chairperson for the PRB.
- It held that the Securities Appellate Tribunal (SAT) should look at dispute cases related to the payments.
- Besides, the *Payment Council of India* (PCI) also maintained that the payments sector has undergone a sea change in the last 7-8 years.
- So, there are various types of risks involved, and a risk-based regulation is the need of the hour.

Payments Council of India

- The Payments Council of India was formed under the aegis of IAMAI (Internet and Mobile Association of India) in the year 2013.
- It was set up to cater to the needs of the digital payment industry, address and help resolve various industry level issues and barriers.
- It works to promote payments industry growth and to support the national goal of 'Cash to Less Cash Society' and 'Growth of Financial Inclusion'.

What is RBI's rationale?

- In a dissent note, the RBI has rejected the above recommendations.
- It has argued that payment systems are a sub-set of currency, which is regulated by the RBI.
- There is an overarching impact of monetary policy on payment and settlement systems and vice-versa.
- This adds validity to the idea that regulation of payment systems remain with the monetary authority i.e. the RBI.
- Also, the activities of payments banks come well within the purview of the traditional banking system.
- So there is no case of having a separate regulator for payment systems outside the RBI.
- Regulation of the banking systems and payment system by the same regulator provides synergy.
- Nevertheless, RBI is open to changes and is not totally against a new PSS Bill, if required.
- However, the changes should not result in the existing foundations being shaken.
- They should not result in potential creation of disturbances in an otherwise well-functioning and internationally-acclaimed structure.
- RBI also held it would prefer the Payments Regulatory Board to function under the purview of the RBI Governor.
- It, however, may comprise three members nominated by the government and the RBI respectively.
- It should come with a casting vote for the governor to ensure smooth operations of the board.
- The recommendation on Securities Appellate Tribunal was also rejected by the RBI.
- The exchanges and securities markets are not under the purview of the Payment Systems Bill.
- So there is no rationality in bringing SAT for resolving payment system-related cases.

Why is RBI's decision a welcome one?

- There is definite overlapping of the current regulatory powers of the RBI and the proposed regulations for the payments industry.
- A unified regulator can thus help lower the regulatory compliance costs and enable the seamless implementation of rules.

- Further, there is a risk that a brand new regulator may be unable to match the expertise of the RBI in carrying out regulatory duties.
- This is especially given the fact of rapidly growing payments industry which can ill-afford regulatory errors at this point.
- Moreover, the decision comes as an expression of RBI's firm stance against any dilution of its current powers over the financial sector.

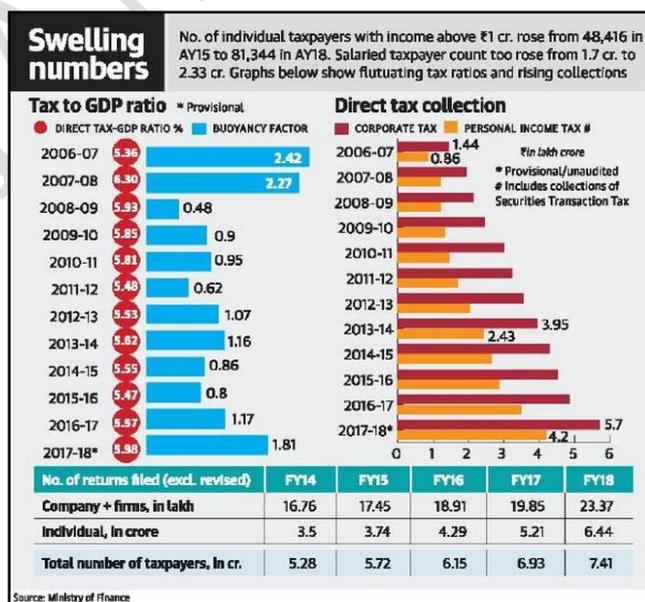
9.6 Central Board of Direct Taxes - Time Series Data

Why in news?

The Central Board of Direct Taxes (CBDT) recently released the new time series data (same data points recorded at regular intervals) as updated up to FY 2017-18.

What are the highlights?

- **Returns** - The direct tax base has significantly widened in the last few years.
- There is a growth of more than 80% in the number of returns filed in the last four financial years.
- They rose from 3.79 crore in FY 2013-14 to 6.85 crore (these figures include revised returns) in FY 2017-18.
- Further, the number of persons filing income tax returns also increased by about 65% during this period.
- **Income** - The CBDT made public the income-distribution data for assessment year (AY) 2016-17 and AY 2017-18.
- There has been a continuous increase in the amount of income declared.
- This is true with all categories of taxpayers, over the last three assessment years.
- For AY 2014-15, corresponding to FY 2013-14 (base year), the return filers had declared gross total income of Rs. 26.92 lakh crore.
- This has increased by 67% to Rs. 44.88 lakh crore for AY 2017-18.
- This shows a higher level of compliance resulting from various legislative and administrative measures, including the enforcement measures against tax evasion.
- **Taxpayers** - The overall number of taxpayers declaring an income above Rs. 1 crore a year saw a sharp growth of about 60% over the 3 years under consideration.
- This included corporates, firms, and Hindu Undivided Families.
- Likewise, the number of individual taxpayers disclosing income above Rs. 1 crore saw a growth of 68% in this period.
- There is also an improvement in the compliance of salaried taxpayers.
- It rose from 1.70 crore for AY 2014-15 to 2.33 crore for AY 2017-18, an increase of 37%.
- The average income declared by these salaried taxpayers has also gone up by 19%.
- In the same period, there has been a growth of 19% in the number of non-salaried individual taxpayers.
- Also, the average non-salary income declared rose by 27% between AY 2014-15 and AY 2017-18.
- **Tax-GDP ratio** - The direct tax-GDP ratio rose to 5.98% in FY 2017-18, the highest it has been in the last 10 years.



What were the driving factors for widening tax base?

- Some of the reasons for increase in the number of tax returns include -



1. the effect of demonetisation
 2. the increase in the use of information being collected digitally and being used by the tax department
 3. the movement towards digital assessment and decrease in the number of cases being picked up for scrutiny
 4. the ease of getting refund, majorly by small and medium taxpayers
- **TDS** - The system of tax deduction at source (TDS) is mandated by law on all those who make payments above a specified level in a year.
 - It allows the tax department to mobilise income-tax and corporation tax without much hassle or additional cost.
 - In 2014-15, the share of TDS in gross direct tax receipts was about 32% and had risen to 36% last year.
 - **Advance taxes** - Advance tax is the payment of income tax in advance instead of lump sum payment at year end i.e. 'pay as you earn tax'.
 - The combined share of these two instruments (TDS and advance tax) in total direct tax collections is almost 76%.
 - Also, the cost of direct tax collections has come down from a high of 0.66% of total revenue garnered in 2016-17 to 0.61% in 2017-18.

What is the concern with direct taxes share?

- The contribution of direct taxes to the total amount of taxes collected rose every year through the first decade of this century.
- It increased from around 36% in 2000-01 to nearly 60% in 2009-10.
- But this was reversed in 2010-11, when the share fell to around 56%.
- Also, thereafter, despite spikes in some years, the broad trend has been that of decline.
- The share of direct taxes has fallen every single year since 2013-14, except this year.
- It is about 52% in 2017-18, but less than the 2009-2010 peak of 60%.
- So most of the rise in the total tax collection in the last few years has come from indirect tax collections.

9.7 WEF Future Jobs Report

Why in news?

World Economic Forum has released the Future of Jobs Report, 2018.

What does the report implies?

- According to the report 75 million jobs will be displaced by disruptive technology.
- 133 million new jobs will emerge concurrently means that huge opportunities are up for grabs, but only for those prepared.
- Sixty-nine per cent of Indian business leaders adopting intelligent technologies will be a critical differentiator.
- While 84 per cent expect that AI-driven man-machine interface will add substantial value and improve efficiency.
- Fifty-nine per cent worry about talent insufficiency being a major hindrance, and yet, only 29 per cent have earmarked investments for training.

What are the challenges faced by Indian Industries?

- According to the official sources only 20 per cent of Indian business leaders believe their workforce to be AI-ready.



- Indian companies has lack of engineers with new-age digital skills to address contemporary challenges, apart from the employees only few industries understand the emerging technologies.
- As the contagion catches on, the supply mismatch will have to be addressed to remain competitive.
- Many Indian companies are often unclear about the specific kind of training that's required, periodicity or even the source of the content.
- While a few Indian IT companies are progressing remarkably towards meeting the amplified needs in a very short time, they lag in a multi-pronged approach through a coalition of competitors.

What measures needs to be taken?

- Given the magnitude of demographic dividend India need take measures in which government and academia join hands with the industry and discard the prevailing silos.
- The fear of job losses will have to be de-fanged by new jobs creation and preparing the workforce appropriately.
- Indian Industries need to re-skill 1.5-2 million people in the next three to four years which will require substantial investment.
- Thus the fear-mongering narrative of job losses needs cleansing and to be replaced by a more realistic one of enhanced productivity, where robots and humans complement one another.

Quick Fact

World Economic Forum

- The World Economic Forum is the International Organization for Public-Private Cooperation, headquartered in Geneva, Switzerland.
- The Forum engages the foremost political, business and other leaders of society to shape global, regional and industry agendas.
- The reports released by World Economic Forum are as follows
 1. Global Information Technology Report
 2. Travel and Tourism Competitiveness Report
 3. Global Competitiveness Report (GCR)

9.8 Global Hunger Index

Why in news?

Global Hunger Index prepared by Welthungerhilfe and Concern Worldwide has been released recently.

What is the report based on?

- The report defines “hunger” by using four specific parameters –
 1. prevalence of undernourishment
 2. child stunting (low height compared to their age) < Age 5
 3. child wasting (low weight for their age) < Age 5
 4. Under-5 child mortality i.e who did not live to be five-years-old.
- The higher the score of a country on the list, the lower it was ranked.

What does the report say?

- The world has made gradual, long-term progress in reducing overall hunger, but there is an **uneven progress**.
- GHI scores for South Asia and Africa south of the Sahara reflect **serious levels of hunger**.
- Areas of severe hunger and under nutrition stubbornly persist which reflects the human misery for millions.



- Since the number of forcibly displaced people is on the rise, and hunger is often both a cause and a consequence of displacement, co-ordinated actions needs to be taken by international community, national governments, and civil society.
- Around 124 million people suffer acute hunger in the world.
- About 151 million children are stunted and 51 million children are wasted across the globe.
- Hard-won gains are being further threatened by conflict, climate change, poor governance, and a host of other challenges.
- It further warned that at least 50 nations all over the globe were on a path to miss their SDG target of achieving low-levels of hunger by the year 2030.

What is the case with India?

- India has been ranked at the 103rd position among 119 countries and is among the 45 countries that have "serious levels of hunger".
- The proportion of undernourished population in India has come down from 18.2% to 14.8%.
- The prevalence of stunting in children below the age of five has gone down sharply from 54.2% to 38.4%.
- The Under-5 child mortality rate has declined from 9.2% to 4.3%.
- India is ranked below many of its neighbouring countries, including China (25), Nepal (72), Myanmar (68), Sri Lanka (67) and Bangladesh (86).

What are the concerns?

- India continues to stay in the “serious” category of the GHI.
- There are still way too many children suffering from stunting, which reflects chronic undernourishment.
- The biggest worry is the level of wasting in Indian children, which has actually gone up over these years from 17.1% to 21%.
- Wasting reflects acute malnutrition and the fact that it has gone up sharply in the past 5 to 10 years is a massive blot on India’s growth story.
- As the report claimed that children aged 0-5 months were at the most risk of child wasting, attention to birth outcomes and breastfeeding should be an important priority for India.
- There were numerous policy attempts were made both at the central and state levels such as hunger missions launched by Maharashtra to directly attack the problem of widespread hunger.
- This is also coincided with the rights-based approach where mid-day meals and nutrition of mothers were also improved.
- Thus the solution lies in adequately distributing nutritious food and health care services to children and lactating mothers.
- Though the government was working to achieve zero hunger by 2030, it focusses on higher farm output as a tool to achieve it.
- But, as various researchers have shown, child undernourishment does not go away by merely having more food grain output.
- It is the distribution, along with timely availability of food that matters.

What does the report recommend?

- The international community should focus resources and attention on the regions of the world where the majority of displaced people are located.
- It should also provide stronger political and humanitarian support to internally displaced people.
- Prioritized actions to address the special vulnerabilities and challenges of women and girls should be taken.
- Certain long-term solutions, like strengthening the resilience of displaced populations by providing access to education and training, employment, healthcare, agricultural land, and markets have also been proposed.

10. INFRASTRUCTURE

10.1 Boosting Electronics sector

What is the issue?

Electronics imports of India is raising and it deems necessary to boost indigenous manufacturing in the sector.

What was the scenario before?

- In the mid-1980s, India with an annual export of \$70 million was ahead of China in electronics and computers hardware sector.
- Firms such as Wipro and HCL had end-to-end capabilities in hardware design, manufacturing, sales and services.
- But the import duties on components remained high and clearance for it stayed as a big hassle, making it difficult to expand operations.
- This was done because the government was more concerned about the misuse of imported components and future revenue losses.
- It also did not allow import of Printed Circuit Board, the most critical element for computers.
- These measures continued in the following decades which made India lag behind in the manufacturing of the electronics and hardware sectors.
- On the other hand, China with an incentive-driven strategy reached \$600 billion in annual exports, which also became the world leader in the same period.

What was the Nokia story?

- Nokia decided to set up manufacturing facilities at Sriperumbudur SEZ in Tamil Nadu in 2006, attracted by India's vast market.
- Nokia moved to India along with its seven component suppliers and in the next few years, it started selling phones on a large scale.
- Exports rose to exceed \$2 billion during 2010-13, but the local leaders tried to subvert the Nokia worker's union, demanding scrap contracts and free phones.
- There were also allegations of showing domestic sales as exports on part of the company and it has also received a bigger tax notice from the Income-Tax Department in the later period.
- Both the tax department and the company have differently interpreted Finland-India Double Tax Avoidance Agreement, which ultimately ended in the plant shutting down in 2013.
- This made India's mobile phone exports collapsed from \$2 billion in 2013 to \$200 million in the following year.
- All 7,000 direct and 10,000 indirect employees including 70% women lost jobs.
- China was the only gainer as most imports of mobile phones came from China.
- The Nokia story dented India's image as a robust investment destination.

What should be done?

- **Focus** - India needs to promote deep manufacturing and not superficial assembly of components.
- For example, lower import duty on components and higher on mobile phones made mobile phones assembled in India cheaper than the imported mobile phones.
- This made many firms to set up units to take the benefit, but they import ready-to-assemble kits from China.
- **Investment** - Although India's mobile phone imports came down in 2017, the combined import of mobile phones and components rose from \$15 billion in 2015 to \$20 billion in 2017.
- Thus India has to invest in semiconductor fabrication plants which build semiconductor chips and mobile phones, computers, or telecom products.
- The focus should also be on the manufacturing of critical parts like Mother Board/Printed Circuit Board (PCB) assembly and Integrated Circuits.

- These components serve as the heart of a computer, laptop, tablet, mobile and most electronic devices.
- **Model** - India could also follow a Chinese model of attracting MNC's through incentives like low-cost land, power, water, labour, tax exemptions and an efficient customs administration.
- This model made China the lead exporter of electrical machinery, electronic and telecom equipment by 2005.
- **Measures** - India could offer a robust incentive package to few anchor firms to set shop in India along with their dedicated component manufacturers.
- These may include low corporate tax at 10% and a 30-year lease of land lying unused at many SEZs.
- We must also allow the creation of a component hub that should ease bulk import where duty should be charged only at the time of clearance.
- This will ensure quick supply of components to meet an export/domestic order.
- The electronics story of the past four decades has suffered from bureaucratic short-sightedness and ambiguous tax regime.
- Thus, clearly worded tax laws that leave nothing on interpretation, freedom from interference in day-to-day operations and an attractive tax concession package could attract large investments into this sector.
- It would also kick-start investment-production-exports cycle in critical sectors like electronics, computer, and telecom, which will also pave the way to manage the rising current account deficit.

10.2 Air India revival

Why in news?

The central government has proposed some measures to pave the way for revival of Air India.

What are the proposals?

- The government is planning steps to give significant autonomy to Air India's (AI's) board, in terms of capital expenditure and commercial decision-making.
- **Special purpose vehicle** - AI's balance sheet is saddled with a debt of around Rs 500 billion and the company spends around Rs 50 billion annually as interest payment.
- High debt burden is one of the primary reasons for failing to generate any interest from the market.
- Hence, the airline's debt will be restructured with around Rs 300 billion of total debt is proposed to be transferred to a special purpose vehicle.
- **Support** - Further, around Rs 150 billion will be provided to the airline as cash or sovereign guarantee.
- Using government guarantee, the airline can raise money from lenders at cheap interest rates.
- However, the autonomy of AI's board will depend on condition that the company will not seek financial support from the government after 2018-19.
- **Plan** - The plan is meant to empower the airline's board to take important business decisions like –
 1. buying or leasing new aircraft
 2. raising capital by mortgaging assets
 3. hiring professionals at senior managerial positions
 4. rationalising the workforce through voluntary retirement scheme.
- Currently, AI needs permission from the Ministry of Civil Aviation for these matters.
- The plan is also to make the board responsible for selling AI's subsidiaries and monetising non-core assets like real estate and land parcel.
- **Operations** - It is learnt that the airline will hire a chief operating officer (COO) who will report to the chairman and managing director and will be responsible for day-to-day operations of the airline.
- He/she will also implement strategies for cost-rationalisation and improving efficiency.
- Professionals will also be roped in for strategic positions such as head of network planning and chief commercial officer.



- **Focus** - The focus will be to increase the efficiency of the airline by strengthening the autonomy of the management in line of Navratna and Miniratna enterprise, so that they don't have to come to the government for approvals.
- Under government guidelines, the boards of profitable enterprises, which are classified as Navratna and Miniratna companies, are given the powers to take commercial decisions without moving the nodal ministries for permission.
- **Board** – The board should have professionals with a deep strategic understanding of the business and proven credentials in commercial and planning domains and expertise in restructuring of large organisations.
- As part of the process, top industrialists have already been inducted as independent directors.
- The government will have a representation in the board through a single nominee.
- There is also a suggestion that an accomplished executive be identified from an Indian public sector unit, with a demonstrated track record in delivering results in difficult circumstances to get appointed in the board.
- All these measures should enable the airline to be able to sustain its operations from internal resources from the next fiscal year.

What are the problems?

- The government has been a relatively generous shareholder, infusing almost Rs 250 billion in equity since 2011-12.
- It was done to repair the damage wrought by forcing the airline into expensive aircraft purchases.
- However, Air India holds an accumulated loss of Rs 7 billion on revenues of Rs 22 billion and a debt burden of Rs 465.7 billion.
- The plan to transfer about Rs 300 billion of debt to a special purpose vehicle creates only an illusory improvement to the profit and loss account.
- The existing debt still has to be serviced, whether on the books or off it.
- Further, the board autonomy is questionable when the chairman and managing director is an Indian Administrative Service Officer, and two of its members are from the ministry of civil aviation.
- As part of the move towards autonomy, the board has inducted four independent directors.
- However, only two of them have knowledge of the aviation business.
- Experience has also shown that independent directors, however weighty their reputation, cannot be relied on to enforce the kind of hard decisions vital to turning around this ailing airline.
- This makes board autonomy or lack thereof unlikely to make a major difference.

What are the measures needed?

- Revival is possible only if Air India ceases to be an airline for government servants and their families and if union power is curtailed.
- The airline is overstaffed but employee cutbacks are invariably fiercely contested.
- Airline should also have been wielded with the potential to attract managerial talent from the market.
- Hence all these hurdles have to be negotiated and board autonomy is only a partial solution to a larger issue plaguing it.

10.3 National Small Savings Fund for Air India

Why in news?

Funds with the National Small Savings Fund (NSSF) will now be used to help the struggling state-owned airline, Air India.

What is the decision?

- Reportedly, an estimated Rs 10 billion is to be allocated to the airline.
- Air India recently failed to pay salaries and also missed payments to various creditors.
- These include oil companies, aircraft leasing agencies and mechanical contractors.



- It already has a debt of over Rs 500 billion and the government's efforts to privatise it have not materialised.

What is the government's rationale?

- The government wants to keep the liabilities like funding an ailing airline off the Budget balance sheet.
- It is also focussed at meeting the fiscal deficit target.
- Recently, the government also permitted the NSSF to start lending to central agencies in addition to Air India.
- E.g. the Food Corporation of India and the National Highways Authority of India
- For the current financial year, the NSSF plans to invest Rs 1.3 trillion in these and other agencies.
- Notably, these are areas that would otherwise have required budgetary support.
- In other words, instead of the government directly lending to these agencies, it will have the NSSF directly lend to them.
- The impact on the overall public sector balance sheet will in effect be the same but the fiscal deficit will appear smaller.

Is it justifiable?

- The pool of small savings being used to finance a struggling airline's working capital raises some concerns.
- Certainly, this is not tax revenue and the government is just the custodian of this money.
- The government thus has the duty to ensure that this money is invested safely and wisely.
- So the decision largely appears to be an irresponsible use of funds.
- Even the fiscal deficit target would only be met in name.
- It's because the government would still be spending more in excess of its revenue than it had targeted.
- The effect on private sector borrowing would largely be the same as additional crowding out would occur.

What are the concerns?

- The government seeks to meet its disinvestment target through buyback of shares by public sector undertakings (PSUs).
- There is also a suggestion that the RBI reserves be tapped for government expenditure.
- These make it clear that the government is relying heavily on sources other than taxes to fund its spending.
- This is problematic for two reasons:
 1. it is often a less productive use of the funds in question and involves a violation of fiduciary duties
 2. using such off-balance sheet methods undermines the effort towards fiscal consolidation
- The finance ministry must thus reconsider its approach towards managing the financial resources and meeting the targets.

11. AGRICULTURE

11.1 MSP Hike for Rabi Crops

Why in news?

The government has recently approved an increase in the minimum support prices (MSP) offered for rabi crops.

How are prices fixed?

- **Earlier** - The CACP used to earlier take into account a host of factors apart from cost of cultivation, while recommending the MSP.
- They include:
 - i. supply and demand situation for the concerned commodity
 - ii. market price trends (domestic and global) and parity vis-à-vis other crops
 - iii. implications for consumers (inflation), environment (soil and water use)



iv. terms of trade between agriculture and non-agriculture sectors

- **Now** - However, this changed with the Union Budget for 2018-19.
- The government accepted the so-called Swaminathan formula of fixing MSP for crops at 1.5 times their estimated production costs.
- Different production costs are taken into consideration in this regard, namely A2, A2+FL or C2.
- A2 covers all paid-out costs directly incurred by the farmer in cash and in kind on seed, fertiliser, pesticide, hired labour, leased-in land, fuel, irrigation, etc.
- A2+FL includes A2, plus an assigned value of unpaid family labour.
- C2 is a more comprehensive cost that factors in the rentals and interest forgone on owned land and fixed capital assets, on top of A2+FL.
- The CACP's job thus became simply to estimate production costs of crops for a particular season.
- It then recommends the corresponding MSPs by applying the 1.5-times formula.

What is the recent decision?

- The government has settled for the intermediate A2+FL cost formula to arrive at MSPs.
- It has fixed the all-India average A2+FL production costs, for the upcoming 2018-19 rabi planting season, for six crops.
- These are wheat, barley, chana (chickpea), masur (lentil), rapeseed-mustard and safflower.
- The projected increase in costs for 2018-19 over last year's rabi season ranges from 1.8% for barley to 7.2% for chana.
- Government claims that farmers would get a price at least 150% above their production cost, and their incomes would be doubled over time.

What are the concerns?

- The concern now relates to "how" the estimation is done, as only the production costs are taken into consideration by the CACP.
- The CACP recently gave the price policy report for the ensuing rabi season.
- It has constructed a Composite Input Price Index (CIPI), based on the latest available price data for major farm inputs.
- Notably, the retail price of diesel (used as fuel for tractors, harvesters and irrigation pumps) is nearly 32% higher than a year ago.
- Likewise, farm fertiliser and pesticides prices have also gone up to significant levels.
- The raw materials/intermediates and technical material/active ingredients for these are largely imported.
- So their prices are linked to global crude oil and gas rates.
- In effect, the CACP cost projections are lower than the actual prices that farmers are currently paying for inputs.
- E.g. Rs 17-18/litre increase in diesel price for a wheat farmer consuming at least 80 litres/acre translates to an additional cost of roughly Rs 1,400 per acre.
- If the higher prices of fertiliser and pesticides are added, the extra production cost for these inputs increase substantially.
- This would erode a significant chunk of the gains from the increase declared in the MSP.

What is the way out?

- Higher minimum support prices often do not translate into better returns for farmers.
- India's farm sector has multiple stress points, and ground-level procurement often does not take place at stipulated support prices.
- So a robust mechanism that actually helps farmers get the declared MSP for a crop is essential.



- The price deficiency payment scheme and private procurement plan are steps towards this.
- All these being in a nascent stage, there needs to be a holistic reboot of the agriculture sector.

11.2 Alternate to MSP – Telangana Model

What is the issue?

The central government could adopt Telangana's per-acre cash payments for farmers instead of a higher MSP plans.

What are the existing problems with MSP?

- The government recently made an announcement of increasing the minimum support price (MSP) of 14 kharif crops.
- But the prices have not been fixed according to the formula recommended by **Swaminathan Commission**.
- There are two formulae to calculate cost of production.
- One is to include cost of seed, labour (human, animal and machine), fertiliser, manure, insecticides and other miscellaneous costs which is denoted as A2 and add to it the family labour (FL).
- The other formula addition is the cost on imputed rent and interest on owned land to A2+FL.
- So the final cost of production in the case of C2 would be equal to (=) A2+FL+cost imputed on rent and interest on owned land.
- The farmers have been demanding that MSP should be **1.5 times of C2**, which was what the Swaminathan Commission had also suggested, and not 1.5 times of A2+FL.
- Though the government claimed that the recent MSP announcement was based on C2, the calculation shows otherwise.
- Not a single crop's MSP turns out to be 1.5 times of the cost of production using the C2 formula.
- The difference between the MSP declared and the one calculated according to Swaminathan formula ranges between Rs 36 per quintal and Rs 2830.5 per quintal depending upon the crop.
- Also, MSP system is increasingly crop-specific, primarily for wheat and rice, and state-specific, where it works in states that have already a robust procurement system in place.

What is the problem with price deficiency scheme?

- Under it, farmers are proposed to be compensated for the difference between the government-announced MSPs for select crops and their actual market prices.
- Madhya Pradesh implemented it in the form of Bhavantar Bhugtan Yojana.
- The traders in the state ensure that the price is lowered because they can receive higher government compensation if there is a high difference between mandi price and the MSP.
- They forced farmers to sell at lower prices and pocketed the compensation from the government.
- There is also a presence of **modal rate** which is lesser than the MSP.
- If a farmer sells his produce to the trader in mandi at a price lesser than modal rate, then he would get the difference of his trading rate and modal rate and not trading rate and the MSP.
- Most of the Kharif crops were sold at prices below modal rate, and therefore, the majority of farmers could never get the difference of trading prices and the MSP.
- Besides, due to the restricted window periods of selling under the scheme, it had also led to extreme demand-supply mismatch leading to distress selling.
- Finally, the scheme had to be rolled back as the state could not afford it.

How could the Telangana model be a game-changer?

- The state framed a 'farmer investment support scheme', under which every Telangana farmer would receive a total subsidy sum of Rs 4,000 per acre separately for kharif and rabi seasons.
- It is targeted to cover about 72 lakh farmers to meet a major part of their seed, fertiliser, pesticide and field preparation expenses.

- The subsidy will be applicable on the entire 1.62 crore acres' cultivable land of the state.
- There would be an agricultural extension officer deputed for every 5,000 acres, who will report whether or not a farmer availing the benefit is growing a crop.
- The flat per-acre subsidy will be extended to all farmers without any cap on holding size.
- There will be distribution of land ownership passbooks which would serve as proof of land ownership, making the farmer eligible for any such subsidy/transfer scheme.
- Also, if a well-to-do farmer is free to give up the subsidy entitlement, if he/she wishes to do so.
- The subsidy will be in the form of cheques and not as direct benefit transfers to the bank accounts of farmers.
- The decision to make payments in cheques would allow farmers to deposit these in the banks of their choice.
- This will avoid a situation where the subsidy transferred into accounts is used by banks to recover outstanding loans owed by farmers.

What are the advantages?

- The scheme is unique, as they do not involve any physical procurement and stocking of grains from farmers.
- Instead, farmers are being given income support through direct government payments, irrespective of which crop they grow and how much quantity gets sold and at whatever the price.
- The scheme would benefit farmers without distorting farm practices and it can't be manipulated by traders either, since per-acre cash does not affect the market price.
- The incentives are also not crop-specific, hence making it WTO-compatible.

What are the concerns?

- The scheme leaves out tenant cultivators, who grow crops on land they don't own and is taken on lease.
- In most states, the land, agricultural pump-sets and electricity connections are often not in the tenant's name.
- This makes it further difficult for the tenant to show proof of cultivating a particular piece of land.
- Also, the tenants keep moving and cultivate different plots from season to season.
- The only hope is that the actual land owners would provide the rents on their lands against the per-acre subsidy drawn by them under the scheme to the farming tenants.
- If that is done, it would solve all the existing issues of over piling of procured stock grains in the mandis, cartelisation of traders as in PDP scheme and the demand for higher MSP.

11.3 Precision farming in agriculture

What is the issue?

The technique of Precision farming in agriculture should be employed significantly to achieve the target of doubling farmer's income by 2022.

What is the need?

- The Indian agriculture sector growing at less than 4% per annum.
- With the current pace, it would take 25 years for farmers' income to double.
- Hence the central government's aim to achieve it by 2022, in less than five years, certainly looks ambitious.
- However, it has taken some welcome policy measures such as increase in the outlay for agriculture, creation of market linkages (eNAM), ensuring availability of quality seeds, implementing soil health cards and raising minimum support price (MSP) for select crops in this regard.
- This shows that the objective of the central government should lie in changing the way the Indians do farming itself.
- Indian farmers practice their profession by blindly following legacy practices.



- If there is something missing in their process, it is data and data-based decision making that could pave the way for precision in agriculture.

What are the existing concerns?

- Agricultural land is prepared without an accurate measure of the depth to which it needs to be tilled for a particular crop.
- **Sowing** - Farmers sow seeds by broadcasting them across the field and they do not follow any particular norm with respect to spatial distance or the right depth for sowing the seed.
- This prevents the plants from getting optimum nutrients from soil thus hurting yield.
- **Fertiliser** - NPK (Nitrogen Phosphorus and Potassium) content in the soil tend to vary across the field.
- But the Fertiliser is applied uniformly ignoring possible in-field variability of soil.
- A uniform spray will either leave a nutrient far in excess or deep in shortage in various sections of the field.
- The government's soil health card is a right step in this direction but its implementation is patchy.
- Also, farmers decide to spray fertiliser, pesticide or weedicide after a cursory walk through the field.
- It is neither based on a close scrutiny of the crop nor directed only at those plants or areas that are affected.
- Also, very few farmers use the drip irrigation system to fertigate the plants.
- **Irrigation** - When it comes to irrigation, farmers just flood irrigate the field.
- Only 8.4 million hectares of 100 million hectares of cultivable land in the country are drip-irrigated.
- Even here farmers water their fields without monitoring weather conditions or after studying soil moisture.
- The decision to harvest the crop is also not based on the maturity of the crop but on the historical practice they follow.
- All these have meant that farmers spend more than what they should when it comes to input cost and end up with lower than potential yield.
- These factors coupled with dependence on unpredictable monsoons has made agriculture, the riskiest business in India.

How does precision farming overcome these?

- Precision agriculture (PA), satellite farming or site specific crop management (SSCM) is a farming management concept based on observing, measuring and responding to inter and intra-field variability in crops.
- The intent of precision farming is to match agricultural inputs and practices as per crop and agro-climatic conditions to improve the accuracy of their applications.
- All the critical decisions taken on the field by farmers is based on data and technology that interprets the data for them to make a value judgement.
- Tractors fitted with sensors are available to help them till the land to the exact depth that the crop needs.
- They can divide their fields into various quadrants and test them for NPK and other nutrients.
- Satellite imagery can be used to identify nutrient level in the soil and remedial actions can be taken based on need.
- Satellite images can also be used to determine the density of growth and identify sections of the field where growth is poor.
- Equipment is available to sow crops at prescribed spatial distance and at the right depth.
- The crop can be watered by measuring soil moisture using sensors and using drip irrigation to deliver the right quantum of water.
- Sensors come in handy to spot pest attacks accurately.



- Fertilisers/pesticides can be applied only in those areas using the drip infrastructure and harvesting can be done after ascertaining the crop maturity.
- The concern is that the precision farming is **expensive** that costs Rs. 2 lakhs per hectare and adapting those technologies for typical small Indian farms and illiterate farmers is a challenge.
- However, farmers with small land holdings are already hiring tractors and other farm equipment, instead of buying them, from custom hiring centres in various States.
- Private initiatives like Mahindra group's Tringo App or TAFE's J-Farm Services platform have also been taken in this regard.
- These networks can also be used to offer precision farming related services on a pay per use basis.
- Some enterprising farmers have even gone to the extent of deploying Block chain technology to interpret the volumes of data they have generated from their fields kick-starting what is come to be called '**digital farming**'.

What should the government do?

- Benefits of precision farming are significant, wherein it reduces input costs by 18-20% and enhances yield by anywhere between 30% (rice and wheat) and 100 per cent (sugarcane, fruits and vegetables).
- If such benefits are ignored, the only way to double farmer income is by raising crop prices to unsustainable levels.
- Hence, the government should re-orient subsidies away from products to technology-based farming.
- It must also enhance capacity building, especially among extension workers, to teach precision farming to the farmers.
- However, markets need to be developed to absorb the additional output that will come with special emphasis on value addition through processing of the produce.
- Otherwise, the benefits of precision farming will be lost due to low prices.
- Thus, precision farming makes agriculture less risky and more engaging which will draw youngsters into the profession, which will also ensure India's food security.

12. SCIENCE & TECHNOLOGY

12.1 Issues with IMD's Monsoon Prediction

Why in news?

In recent times the monsoon predictions of Indian Meteorological Department is not accurate.

What are the issues with recent prediction of IMD?

- Proving the India Meteorological Department (IMD) wrong yet again, the monsoon has gone through its four-month term (June to September) with a net rainfall paucity of 9 per cent, bordering the drought threshold of 10 per cent.
- The distribution of monsoon in this season is also wrong when compared with reality.
- Its long-term monsoon rainfall prognosis issued in mid-April had put the likely precipitation at 97 per cent of normal.
- It was kept at the same level even in the updated forecast released on May 30, but the actual rainfall turned out to be way below at 91 per cent.

What are the observations from recent monsoons?

- The monthly rainfall has remained below par throughout the season with the deficit mounting progressively from 5 per cent in June to 6 per cent in July, 8 per cent in August and 24 per cent in September.
- Moreover, the maximum rainfall shortage of about 24 per cent has been recorded in the east and north-eastern zones, where the paucity of this order is least expected.

- The other regions have witnessed only marginal shortfalls in rain just 1 per cent in the northwest and south peninsula and 6 per cent in central India.
- Moreover, the influence of climate change on the monsoon, in evidence in recent years, has been revalidated this year as well.
- It is most pronounced in the departure of the monsoon, which now starts from around the end of September instead of the beginning of this month.
- In recent years, its retreat commenced from September 23 in 2014, September 28 in 2015, October 7 in 2016, September 27 in 2017 and September 29 this year.

What are the outcomes of the extended monsoon?

- On the whole, the monsoon has proved benevolent for agriculture and other sectors.
- This is borne out by the facts that farm production is expected to exceed last year's peak, the water stock in reservoirs is plentiful.
- The prospects of hydel power generation are promising, rural demand is looking up, and food inflation is under control and likely to remain so.
- Kharif sowing has surpassed last year's record acreage and crop output is projected officially to outstrip last season's 140.73 million tonnes to an all-time high of over 141 million tonnes.

What is the way forward?

- Private weather forecaster Skymet had erroneously claimed the likely seasonal rainfall to be 100 per cent normal in its preliminary forecast in April.
- But it managed to make amends subsequently by lowering the estimate to 92 per cent, which proved closer to the mark.
- While private players with limited resources are predicting the weather accurately it is worrisome with the outputs of IMD.
- Thus considerable scope for the IMD to refine its monsoon prediction skills to enhance its credibility.

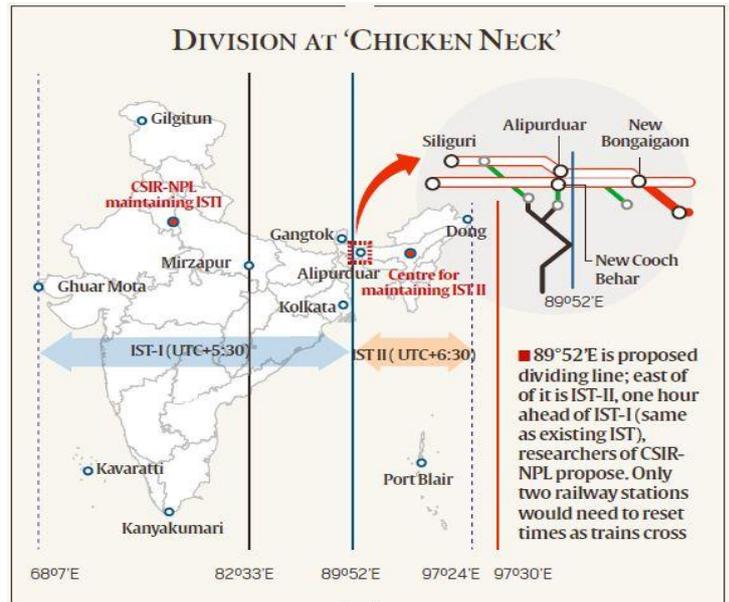
12.2 Having Two Time Zones for India

Why in news?

A proposal for two time zones has come from the Council of Scientific & Industrial Research's National Physical Laboratory (CSIR-NPL).

How is time defined and maintained?

- If lines of longitude are drawn exactly a degree apart, they will divide the Earth into 360 zones.
- As the Earth spins 360° in 24 hours, a longitudinal distance of 15° represents 1 hour.
- In other words, 1° represents a time separation of 4 minutes.
- So theoretically, the time zone followed by any place should relate to its longitudinal distance from any other place.
- Political boundaries mean that time zones are often demarcated by bent lines rather than straight lines of longitude.
- This is the "legal time", as defined by a country's law.
- The geographic "zero line" runs through Greenwich, London.



- It identifies the GMT (Greenwich Mean Time), now known as Universal Coordinated Time (UTC).
- It is maintained by the Bureau of Weights and Measures (BIPM) in France.
- The United States follows several time zones across its breadth.

What is the case with India?

- The Indian Standard Time (IST) is maintained by CSIR-NPL.
- The Indian Standard Time (IST) is based on a line of longitude that runs through Mirzapur in UP.
- At 82°33'E, the line is 82.5° east of Greenwich, or 5 hours 30 minutes ahead of UCT.
- But notably, India extends from 68°7'E to 97°25'E (spread of 29°), representing almost two hours from the geographic perspective.
- Evidently, there is huge difference in daylight times between the country's longitudinal extremes.
- So the early sunrise in the easternmost parts causes the loss of many daylight hours by the time offices or educational institutions open.
- Also, the early sunset in the region, leads to higher consumption of electricity and concerns over the costs associated it.
- Thus, over the years, there have been demands and debates over India having two separate time zones.
- **Concern** - Those against the idea cite the impracticability of having different time zones.
- Particularly the risk of railway accidents is cited, given the need to reset times at every crossing from one time zone into another.
- The government has also, in the past, not favoured two time zones citing the complexities involved.

What is the recent proposal?

- The CSIR-NPL has published a research article describing the necessity of two time zones.
- It has proposed a new time zone with an hour ahead of the existing time zone.
- It proposes to call the two time zones IST-I (UTC + 5.30 h) and IST-II (UTC + 6.30 h).
- The proposed line of demarcation is at 89°52'E, the narrow border between Assam and West Bengal.
- States west of the line would follow IST-I, and states east of the line would follow IST-II.
- The latter include Assam, Meghalaya, Nagaland, Arunachal Pradesh, Manipur, Mizoram, Tripura, and Andaman & Nicobar Islands.
- To make the idea possible, CSIR-NPL would need a second laboratory in the new time zone.
- CSIR-NPL already has the technical expertise to duplicate its existing facility, but the move would require legislative sanction.

What is the rationale?

- The "chicken neck", connecting Northeast to the rest of India, is where the two time zones will be demarcated from each other.
- **Railways** - The railway signals have not yet been fully automated in the country.
- In this line, the border between the two time zones has a very narrow spatial-width with minimum number of train stations.
- So the train timings, while crossing the border, can be managed manually without any untoward incidents.
- **Energy** - The country could potentially save 20 million kWh energy a year if it follows two time zones.
- Besides, the importance of synchronising office hours as well as biological activities to sunrise and sunset timings was analysed.

12.3 Indigenising India's Cyber Space

What is the issue?



With emerging cyber threats and national security challenges, it is crucial for India to indigenise the IT infrastructure of its military.

What are India's aims in this regard?

- The following were spelt out at different instances as priorities in the cyber space -
 - i. a Digital Armed Force and the increasing importance of dominating the cyber space
 - ii. preparing for rivalries in cyber space
 - iii. the role of the services in encouraging the development of domestic capabilities
- The first vision is on its way to realisation as the government has sanctioned recently the raising of a cyber agency.
- This will steer the planning and conduct of cyber warfare in the military.
- Hopefully, once the doctrine has matured, the cyber agency will be expanded to a much-needed cyber command.
- But the goal of building domestic capability remains largely unfulfilled.

What is the emerging global threat?

- Under the PRISM programme, the US National Security Agency (NSA) collected data from internet communications.
- Leaked documents showed the close involvement of US technology companies like Microsoft, Google, Yahoo, Facebook and Apple.
- The NSA was collecting data directly from the servers of US service providers.
- Microsoft had actively helped the NSA to avoid its own encryption of web chats on Outlook.com.
- It also permitted PRISM to access its cloud storage service SkyDrive, and monitor Skype chats.
- Microsoft denied these allegations, but the evidence was overwhelming.
- Likewise, a recent Bloomberg report highlighted China's intelligence services' similar moves.
- It ordered subcontractors in China to plant malicious chips in Supermicro server motherboards bound for the US.
- Faced with these dangers, countries have moved to restrict foreign products from use in critical networks.
- E.g. in 2014, China banned government offices from buying Microsoft Windows
- Recently, US President Trump signed a bill banning the use of Chinese Huawei and ZTE technology by the US government.
- This followed a 2017 ban on the Moscow-based Kaspersky Lab.

What is the case with India?

- India seems to be largely unaware of the vulnerabilities that exist in the critical networks due to foreign hardware and software.
- **BSNL** - Over 60% of software and hardware being used by BSNL is sourced from Chinese Huawei or ZTE.
- This is despite Huawei being probed for hacking a BSNL network in 2014.
- In 2017, BSNL signed a memorandum of understanding with ZTE for research and commercialisation of future 5G technology.
- Notably, Australia has banned Huawei from supplying equipment for 5G mobile network, citing national security risks.
- **AFNET** - The Air Force Network (AFNET) was launched in 2010.
- Cisco (US network equipment maker) was a major supplier of equipment for AFNET.
- The army's latest communication backbone, Network for Spectrum (NFS), also uses Cisco equipment.
- Rather than looking at indigenous equipment, the request for proposal for NFS equipment had been manipulated to favour Cisco.



- **Software** - The Indian Army mostly uses the Microsoft Windows operating system on its official computers.
- Windows is an outstanding system but is a closed-source software owned by a company that is bound by US laws.
- It is historically tied to the American intelligence community.
- Notably, India is a prime target for American spying as India stood at the 5th place in the overall list of countries targeted by PRISM.

What is the proposal in this regard?

- In 2015, the Northern Command of the army decided to adopt the Bharat Operating System Solutions (BOSS) for all its official computers.
- BOSS is an indigenously developed open-source system by the Centre for Development of Advanced Computing.
- [It is an R&D organisation of the Ministry of Electronics and Information Technology.]
- **Concerns** - Replicating the user-friendliness of Windows and re-training of a generation that had grown up with Windows were key challenges.
- But three years later, the army is still debating the merits of BOSS.
- The arguments are still centered on simplicity of usage, and not on security of networks.
- There is even a push to return to Windows, instead of supporting BOSS.

13. ENVIRONMENT

13.1 2018 S-W Monsoon - Northeast Deficit and Overall Rainfall

What is the issue?

Severe rainfall deficiency in the Northeast has caused an overall deficiency in the country at the end of the current south west monsoon season.

How was rainfall this monsoon?

- **Northeast** - Northeast region witnessed a severe rainfall deficiency of 24% this southwest (S-W) monsoon season.
- India Meteorological Department said that it was “very rare” for such a large deficiency in the Northeast.
- In the 116-year period from 1901 to 2017, only in 4 years (1992, 2005, 2009 and 2013) has the deficiency in the Northeast exceeded 20%.
- Northeast deficiency has caused an overall 9% rainfall deficiency in the country at the end of the season.
- **Others Regions** - The distribution of rainfall across Northwest, Central India and Southern Peninsula was “satisfactory”.
- The deficiency in these areas was marginal with 2% each in Northwest and Southern Peninsula, and 7% in Central India.
- So if the Northeast had received normal rainfall, the all-India rainfall would have been 96% of the Long Period Average.
- Long Period Average (LPA) is the average annual rainfall for the period 1951-2000.

What is the cause for deficiency?

- Starting from the extreme south-western tip of the peninsula, the Southwest monsoon progresses inland.
- But the monsoon trough that usually moves towards the Northeast did not happen this year.
- Sea surface conditions over the Equatorial Pacific (El Niño conditions) did not have any adverse effect on the rainfall.
- The IMD has thus planned a detailed scientific analysis on the causes by the end of December 2018.

Why is 2018 S-W monsoon unique?

- **Rainfall** - The 2018 monsoon has been characterised by “large day-to-day variability” within the season.
- Many cities in the country received almost their entire rainfall of the season within a short time.
- This added up to just a few days to a few weeks within the four-month season (June 1 to September 30).
- E.g. in 22 cities with sizeable populations, 95% of the monsoon precipitation occurred over 3 days to 27 days on average.
- Many intense rainfall events during the season have led to flooding like the Kerala floods.
- The season also witnessed formation of a large number of low pressure systems over Bay of Bengal and their westward movement across central India.
- **Water in dams** - The spatial distribution of this year’s rainfall is also reflected in the storage capacity of the country’s reservoirs.
- Country’s major reservoirs at present have 117% of the live storage of the corresponding period last year.
- This is 105% of the average water storage over the last 10 years, as said by the Central Water Commission (CWC).
- Of the five regions, storage in reservoirs in Northern, Eastern, Central and Southern regions is higher than last year.
- Storage in the Western region is less than the storage of last year and also less than the 19-year average storage.
- **Agriculture** - The overall crop acreage during the kharif season is higher by 2.6%.
- This is in comparison to the country’s highest ever acreage/record food production during 2017.
- The resultant acreage is largely the result of a good soil moisture distribution across the country.
- Adequate soil moisture available over northern parts of India may help the rabi crop during 2018-19.

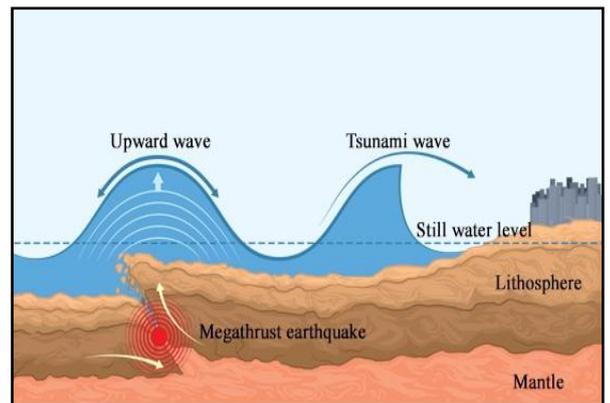
13.2 Indonesia Tsunami - Causes

Why in news?

After a major 7.5-magnitude earthquake, tsunami hit Palu, a city in the Indonesian island of Sulawesi, recently.

What caused the 2004 tsunami?

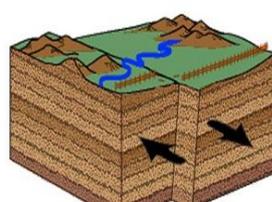
- **Vertical earthquakes** - Catastrophic tsunamis are often triggered by ‘megathrust earthquakes’.
- These occur at subduction zones when one tectonic plate is forced under another.
- It causes massive chunks of the earth’s crust to move vertically.
- Such movements on the ocean’s floor cause huge volumes of water to be displaced suddenly.
- They thus throw up giant waves that can travel very fast across great distances.
- E.g. the December 2004 Indian Ocean tsunami.
- It had waves up to 100 ft high which was triggered by a megathrust earthquake of 9.1-magnitude in Sumatra.



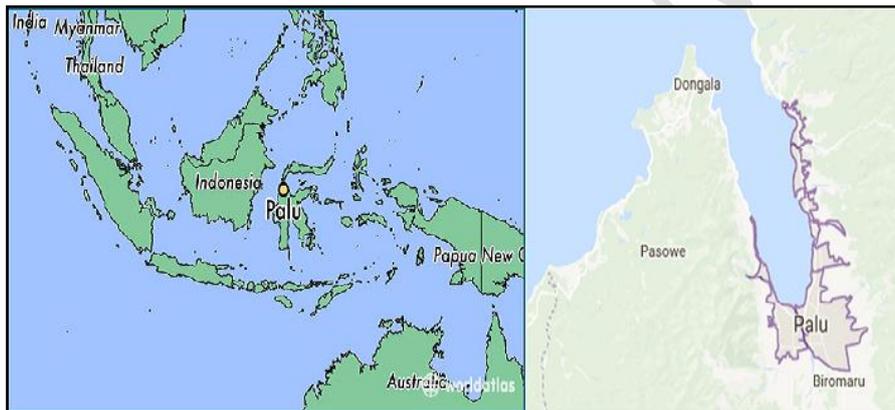
What is the present Indonesia case?

Strike-Slip Faults

- Blocks of rock move sideways or horizontally on either side of the fault plane.
- Stresses that push blocks of rock horizontally cause earthquakes along strike-slip faults.
- The San Andreas Fault is a strike-slip fault.



- **‘Horizontal’ earthquakes** - The recent 7.5-magnitude quake in Indonesia was triggered by what is called a ‘strike-slip fault’.
- In this type of quake, the earth’s movement is largely horizontal which would not normally trigger a tsunami.
- However, it is possible for a strike-slip fault to also have some amount of vertical motion that could displace water.
- Or the fault’s rupture zone may pass through an area where the seafloor rises or drops off.
- In such cases, when the fault moves during the quake, it pushes seawater in front of it.
- Notably, in Indonesia's case, the fault’s rupture zone was estimated to be about 70 miles long, suggesting a large possibility for the above.
- **Landslide** - Another possibility is that there could have been a mudslide on the ocean floor.
- This could have displaced a lot of water and created waves, causing a cataclysmic effect on the bay.
- **Topography** - The tsunami could have been impacted by Palu’s location at the end of a narrow bay.
- The coastline and the shape of the bottom of the bay could have focused the wave energy and guided it up the bay.
- This could have increased the wave height as it approached the shore.



13.3 IPCC Report on Global Warming

Why in news?

The Special Report on Global Warming of 1.5°C was recently approved by the Intergovernmental Panel on Climate Change (IPCC).

What is the report on?

- The report focuses on keeping warming to under 1.5°C as compared to pre-industrial times.
- Preventing an extra single degree of heat could make a life-or-death difference in the next few decades.
- So it calls for the world’s leaders to limit future human-caused warming to just 0.5°Celsius from now.
- This is, notably, well below the earlier globally agreed-upon goal of 1° C from now.
- The report details how Earth’s weather, health and ecosystems could be made better.
- It will be a key scientific input into the Katowice Climate Change Conference in Poland in the coming December.
- The governments will review the Paris Agreement to tackle climate change in this upcoming conference.

What is the current warming scenario?

- In 2010, international negotiators adopted a goal of limiting warming to 2°C since pre-industrial times, called the 2° goal.

- In 2015, in Paris climate agreement, they set dual goals - 2°C and a more demanding target of 1.5°C from pre-industrial times.
- The world has already warmed 1°C since pre-industrial times.
- It is likely to reach 1.5°C between 2030 and 2052 if it continues to increase at the current rate.
- **Impact** - In that case, climate-related risks to health, livelihoods, food security, water supply, human security and economic growth would increase.
- The world's poor would likely be hit the hardest, and extreme weather, especially heat waves, will be deadlier.
- Diseases such as malaria, dengue, and conditions like premature deaths due to air pollution, undernourishment are likely to multiply.

What would limiting to 0.5°C from now mean for the world?

A number of climate change impacts could be avoided by limiting global warming to 1.5°C compared to 2°C, or more.

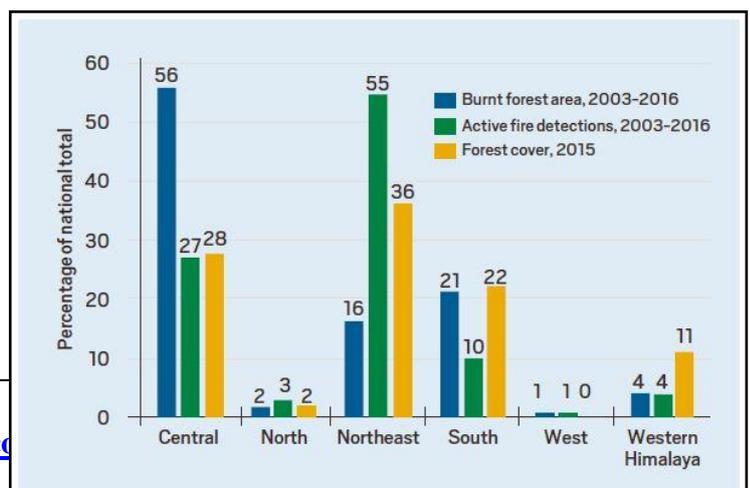
- Half as many people would suffer from lack of water.
- There would be fewer deaths and illnesses from heat, smog and infectious diseases.
- There would be substantially fewer heat waves, downpours and droughts.
- Around 420 million fewer people would be exposed to extreme heat waves.
- About 65 million fewer people will be exposed to exceptional heat waves.
- Seas would rise nearly 4 inches (0.1 meters) less.
- Half as many animals with back bones and plants would lose the majority of their habitats.
- The West Antarctic ice sheet might not kick into irreversible melting.
- Most of the world's coral reefs would be saved from dying.
- Limiting warming to 0.5°C from now means the world can keep the ecosystems much as it is now.
- Adding another 0.5°C on top of that essentially means a different and more challenging Earth for people and species.

What does it call for?

- The nations' pledges in the Paris agreement are insufficient to limit warming to 1.5°C in any way.
- Meeting the more ambitious goal of slightly less warming would require unprecedented changes.
- It needs "rapid and far-reaching" changes in energy systems, land use, city and industrial design, transportation and building use.
- It involves much sharper and quicker emission cuts by big emitters like China, the US, the European Union and India.
- The measures are also likely to be heavily dependent on the success of yet-to-be-developed carbon removal technologies.
- Annual carbon dioxide pollution levels should halve by 2030 and then be near zero by 2050.
- Emissions of other greenhouse gases, such as methane, also will have to drop.
- Switching away rapidly from fossil fuels to do this could be 3 to 4 times more expensive but would clean the air of other pollutants.
- In turn, this would avoid more than 100 million premature deaths through this century.

13.4 MoEFCC Report on Forest Fires

Why in news?



Ministry of Environment, Forests and Climate Change (MoEFCC) and World Bank recently released a joint report on forest fires in India.

What are the highlights?

- At least 60% of districts in India are affected by forest fires each year.
- The top 20 districts in terms of area affected by fire from 2003 to 2016 account for 48% of the total fire-affected area and they mostly fall in Central India.
- The 16 of the top 20 districts in terms of fire frequency are located mainly in the Northeast.
- Here, forest fires tend to be concentrated in a smaller area that is subject to repeated burning.
- The peak fire season is the most concentrated (shortest) in the Northeast and the Northern state of Bihar.
- Fires in other regions, particularly districts in Central and Southern India, are more expansive.
- Districts experiencing widespread and frequent forest fires include areas of dry and moist deciduous forest.
- These include the borderlands of Chhattisgarh, Maharashtra, and Telangana that are affected by fire on a nearly annual basis.
- Notably, between 2006 and 2015, forest fires were detected in just under half (281 of 614) of the protected areas in India.

What are the proposed reasons?

- In line with other parts of the world, people are the main driver of fires in India.
- Forest fires are distributed close to people and infrastructure in India.
- Also, India's monsoons are largely responsible for the seasonal nature of forest fires in the country.
- Forest fires peak during the dry months of March or April before the arrival of the monsoon.
- The fire season mainly occurs during the four-month period between February 15 and May 15.
- Besides, the reduced contrast in land-sea temperatures had weakened the engine that drives the monsoon.
- But it is not yet clear how the drying of the monsoon has affected the intensity or frequency of forest fires.

What is the significance?

- Forest fires contribute to global warming and hence climate change, by releasing carbon stored in trees, undergrowth and soil into the atmosphere.
- Given this, the report gains significance with recent Intergovernmental Panel on Climate Change's special report on global warming.
- The findings are crucial for India's own pledge on creating additional carbon sink of 2.5 to 3 billion tonnes of Co₂-equivalent by 2030.
- In the long run, climate shifts due to anthropogenic global warming may further alter India's forest landscape and fire regime.
- Also, the MoEF issued national guidelines on Forest Fire Prevention and Management (FFPM) in 2000.
- But these are no longer being implemented in true spirit.
- The Comptroller and Auditor General (CAG) has documented the shortage of dedicated funding for FFPM at the central and state levels.
- The recent report is thus expected to be a key input in issuing a national policy on FFPM.

13.5 Problem of Ghost Gear - Fishing

What is the issue?

- The problem of ghost gear in Indian oceans is getting to be a serious concern.
- India should emulate innovative solutions from across the world to tackle this.



What are the recent happenings?

- Ghost gear is any fishing equipment that has been lost, discarded or abandoned in water bodies.
- The problem of ghost gear has grown from a fishing outcome that people had not heard of to one that is now difficult to ignore.
- In March 2018, fishermen hauled 400 kg of fishing nets out of the sea in a few locations off Kerala's south coast.
- Reportedly, many divers regularly make underwater trips just to extract nets that have sunk to the ocean floor.
- It covers the regions off India's coasts, ranging from Tamil Nadu to Maharashtra.

What is the impact?

- Ghost nets are often 'ghost fishers' as ocean currents carry them for thousands of km across the ocean floor.
- E.g. discarded Indian and Thai fishing nets have been fished out of Maldivian coasts
- They entangle, injure and drown marine life and damage live corals along the way.
- The Olive Ridley Project is a U.K. registered charity that removes ghost nets and protects sea turtles.
- The project, between 2011 and 2018 alone, recorded around 600 sea turtles being entangled in ghost gear near the Maldives.
- Of this, 528 were Olive Ridges, the same species that come in thousands to Odisha's coasts to nest.
- Other casualties worldwide include whales, dolphins, sharks and even pelagic birds.
- In 2016, another study found over 5,400 marine animals belonging to 40 different species entangled in ghost gear, or associated with it.

What are the concerns?

- The analysis showed a huge gap in data from the Indian, Southern and Arctic Oceans, and thus prompted on future studies to focus on these areas.
- But even after two years, there are still no data pertaining to the extent of prevalence of ghost gear off India's coast.
- Data is crucial because the detrimental effects of these nets also spill over into other countries and oceans.
- The government is currently preparing a national ghost net management policy.
- But besides ghost nets, the larger concern is the bigger violations wherein large vessels do fishing where they are not supposed to.
- Unless this is checked, implementing a policy on the management of ghost nets is hard.
- The consequences of overfishing, using nets of the smallest mesh size, and illegal fishing are far less visible, but are more worrying.
- Entire fishing communities are affected by these actions.
- Especially in developing countries like India where the demand for fish keeps rising, the impact is serious.

13.6 Supreme Court Ruling on Firecrackers

Why in news?

The Supreme Court recently gave some guidelines in line with the sale, manufacture and use of firecrackers.

What are the guidelines?

Green crackers

- They do not contain harmful chemicals that would cause air pollution.
- Components are replaced with others that are less dangerous and less harmful to the atmosphere.
- The idea was carried forward by a network of CSIR labs.
- The team came up with 3-4 formulations and looked at 30-40% of active materials which reduce particulate matter.
- Potential sound-emitting functional prototypes that do not emit sulphur dioxide were also developed.
- These crackers are named as Safe Water Releaser (SWAS), Safe Thermite Cracker (STAR) and Safe Minimal Aluminium (SAFAL).
- These have the unique property of releasing water vapour and/or air as dust suppressant and diluent for gaseous emissions.



- The ban came on the basis of a petition filed by two infants through their fathers in 2015.
- They said the air pollution caused by various factors, especially firecrackers, made Delhi a gas chamber and pleaded for their right to life.
- **Time** - The Supreme Court restricted the use of fireworks during Deepavali and other festivals to an 8-10 pm window.
- For Christmas and New Year, the time slot allowed is half-an-hour, between 11.55 p.m. and half-past midnight.
- **Manufacture** - The court banned crackers that are loud and toxic to man, animal and the environment.
- It banned the manufacture, sale and use of joined firecrackers (series crackers or 'laris').
- It held that they caused "huge air, noise and solid waste problems."
- It allowed the manufacture and sale of only "green" and reduced-emission or "improved" crackers.
- **Sale** - The sale of green and improved crackers would be only through licensed traders.
- The court banned the online sale through e-commerce websites, including Flipkart and Amazon.
- Any e-commerce company selling crackers online would amount to contempt of court.
- It may also invite orders of monetary penalties from the court.
- **Community** - The court urged the Central and State governments to permit "community" bursting of crackers during festivities in pre-designated areas.
- In the case of Delhi and the National Capital Region (NCR), the court made it mandatory.
- It gave the Centre, the Delhi and other State governments, whose areas fall within the NCR, a week's time to identify these pre-designated areas.
- It directed that the public should be informed about the designated places a week before Diwali.
- **Violation** - Local Station House Officers would be held personally liable and hauled up for contempt by the court if there was any violation of the judgement.
- This applies both to the time slots for bursting crackers and the sale of banned crackers.
- **PESO** - The court banned the use of barium salts in fireworks.
- It entrusted the Petroleum and Explosives Safety Organisation (PESO) in this regard.
- PESO will have to ensure that only fireworks with permitted chemicals are sold or purchased during festivities or celebrations.
- It should also test and check for the presence of banned chemicals like lithium / arsenic / antimony / lead / mercury.
- It has to ensure that only those crackers whose decibel (sound) levels were within the limits are allowed in the market.
- PESO has been empowered to suspend the licences and appropriately dispose of stocks of manufacturers who violated the court's directions.

What is the court's rationale?

- The court rejected arguments that bursting crackers was a fundamental right.
- It also ruled it out as being an essential practice during religious festivals like Diwali.
- It held that Article 25 (right to religion) is subject to Article 21 (right to life).
- So a religious practice that threatens the health and lives of people is not entitled to protection under Article 25.
- The ruling has thus struck a balance between two rights -
 - i. right of the petitioners under Article 21 (right to public health)

- ii. right of the manufacturers and traders under Article 19(1)(g) (right to practice any profession or to carry on any occupation, trade or business)

13.7 Enforcement of BS-VI standards in India

Why in news?

Supreme Court ordered a complete ban on the sale and registration of Bharat Stage IV (BS-IV) vehicles in the country from April 1, 2020.

What was the ruling?

- The manufacturers were allowed to manufacture BS-IV vehicles till March 31, 2020
- So the government proposed to give reasonable time till June 30, 2020, to sell those BS-IV vehicles.
- However, the court ordered that only BS-VI vehicles will be allowed after the April 1, 2020, at the same time BS-VI grade petrol and diesel would also come into force across the country.
- The court also said that the right to life (Article 21) includes the right of a citizen to live in a clean environment
- The court said the need of the hour was to move towards usage of cleaner fuel along with developing an engine accommodative to the fuels.

What are Bharat Stage emissions standards?

- The Bharat Stage emission standards are standards instituted by the government to regulate the output of air pollutants from the internal combustion engines.
- It includes both emission standards for new vehicles as well as specifications for commercial petrol and diesel fuels.
- In April 1999 the Supreme Court of India ruled that all vehicles in India have to meet Euro I or India 2000 norms by 1 June.
- The Central Pollution Control Board sets timelines and standards which have to be followed by automakers.
- BS norms are based on European emission norms which are referred to in a similar manner of 'Euro 4' and 'Euro 6'.
- Implementation of the intermediate BS-V standard was originally scheduled for 2019.
- But the Centre had announced that the country would skip the BS-V norms altogether and adopt BS-VI norms by 2020.

What is the difference between BS-IV and BS-VI standards?

- The main difference between the existing BS-IV and the upcoming BS-VI auto fuel norms is the **presence of sulphur**.
- The BS-VI fuel is estimated to bring around an 80% reduction of sulphur, from 50 parts per million to 10 ppm.
- The emission of NOx (**nitrogen oxides**) from diesel cars is also expected to come down by nearly 70% and 25% from cars with petrol engines.
- Also, BS VI will bring the cancer causing **particulate matter** in diesel cars by a phenomenal 80%.

What are the concerns raised?

- The Supreme Court verdict may hit the automobile industry as it takes years for automakers to develop a new kind of an engine or to tweak around with the current ones used in their vehicles.

Standard	Reference	Year	Region
India 2000	Euro 1	2000	Nationwide
BS-II	Euro 2	2001	NCR, Mumbai, Kolkata, Chennai
		2003	NCR, 13 Cities
		2005	Nationwide
BS-III	Euro 3	2005	NCR, 13 Cities
		2010	Nationwide
BS-IV	Euro 4	2010	NCR, 13 Cities
		April, 2017	Nationwide
BS-V	Euro 5	(Skipped)	-
BS-VI	Euro 6	April, 2018	Delhi NCR (BS VI Fuel only)
		January, 2019	13 Cities (BS VI Fuel only)
		April, 2020	Nationwide (Both BS Fuel & Compliant vehicles)

- Then comes the task of setting up full scale production comes up.
- All of this comes at a cost which eventually makes the vehicle more expensive.
- This is a cause of concern for automakers given how price sensitive the Indian market is.
- In the previous transition, automakers were supposed to make their models BS IV compliant by April 1, 2017.
- While some automakers have met the targets and updated their products, there is a huge stock of vehicles left to be sold into the market that are BS-III compliant and as per the latest SC decision, they won't be able to do so.
- Recently, Society of Indian Automobile Manufacturers (SIAM) had told the court that the companies were holding stock of around 8.24 lakh such vehicles.
- Also, there is also the requirement of cleaner fuel to run these vehicles that comply with a stricter emission regulation as it is not feasible to make internal combustion engines pollute less while using poor quality of fuel.
- Using the introduction of higher grade fuel will be beneficial only if it is done in tandem with the rollout of BS-IV compliant vehicles.
- Using BS-VI fuel in the current BS-IV engines or, conversely, running BS-VI engines on the current-grade fuel, may be ineffective in curbing vehicular pollution.
- The Centre argues that automakers have been given enough time for the transition and they have done their part to provide cleaner fuel.
- However, automakers have a huge stock that does not comply with the soon-to-be-implemented BS VI emission norm and they risk facing huge losses.

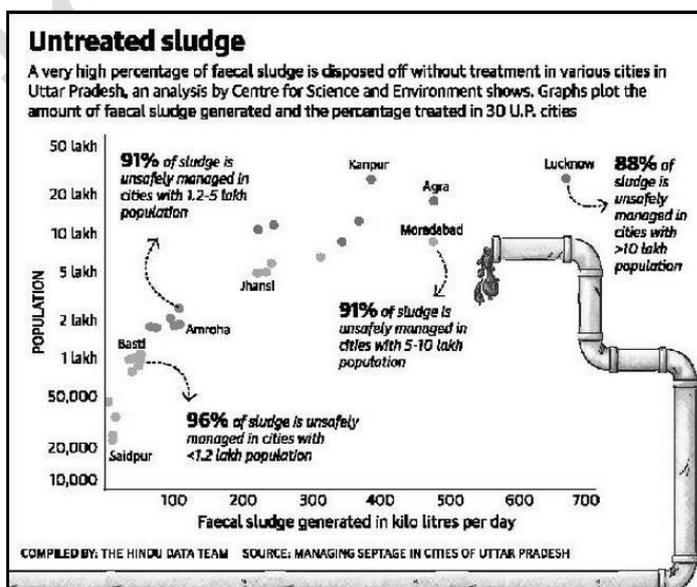
13.8 UP Sludge Management Systems - CSE Study

What is the issue?

The Centre for Science and Environment recently released a report on its analysis of sludge management systems in 30 cities in Uttar Pradesh.

What are the highlights?

- **Water bodies** - Urban Uttar Pradesh has an 80% coverage of toilets, but inefficient sanitation systems.
- So almost 87% of faecal sludge expelled from toilets in urban areas is untreated.
- This, in turn, is being dumped in water bodies or agricultural lands.
- It is eventually leading to polluting the Ganga and other rivers.
- **Systems** - The number of toilets and onsite sanitation systems being built in the state are all set to increase exponentially.
- But the effluent from the septic tank, along with grey water from other uses flows out into storm water drains and open drains.
- If not managed scientifically and sustainably, the amount of faecal sludge that new toilets will generate will swamp the State.
- It will only worsen the environmental, sanitation and manual scavenging situation.
- **Manual scavengers** - The faecal sludge has to be periodically emptied from the septic tank, either manually or mechanically.
- But half of all emptying work in the studied cities is done manually.



- This is despite the legal prohibition of the employment of manual scavengers.

What are the other drawbacks?

- State support for improved housing and planned development has never been strong.
- The National Urban Sanitation Policy of 2008 has not changed this condition significantly.
- At the national scale, a UN report of 2015 estimates that 65,000 tonnes of untreated faeces is introduced into the environment in India annually.
- The Swachh Bharat Abhiyan promised a major shift, but the focus is more on the basic requirement of household and community toilets in rural and urban areas.
- So the problem of waste not being contained, collected without manual labour, transported and treated safely remains.

13.9 Water Theft in India

What is the issue?

Illegal water trade is thriving in most Indian cities and is crippling most of the Indian cities' water distribution networks.

What do the reports say?

- The Central Groundwater Board underlines that the water level has declined in 64% of the total monitoring wells.
- A new study by researchers at IIT Guwahati reveals that only six out of 22 river basins in the country have the potential to cope with the threat of climate change, particularly droughts.
- The NITI Aayog in its report on 'Composite Water Management Index' (2018) has underlined that nearly 600 million Indians faced high to extreme water stress.
- It also quoted that about 2,00,000 died every year due to inadequate access to safe water.
- The World Bank, in its report 'India's Water Economy: Bracing for a Turbulent Future', had clearly outlined that dams in India have the capacity to store only about 30 days of rainfall.
- This shows that the water storage capacity of innumerable small water bodies has eventually declined due to centuries of neglect and mismanagement.
- All these indicate that water stock is not adequate for future use in India.
- However, the country's growing water scarcity is not only due to climate change and constant competing demand from various sectors, but due to **rampant water theft** as well.

How does it happen?

- **Multinational Firms** - It is reported that many multinational beverages and packaged water business firms steal groundwater in many places.
- The gram panchayat authorities in Palakad district of Kerala allege that a multinational company draws 6.5-15 lakh litres of groundwater per day against the permissible limit of 2.4 lakh litres.
- Some multinational firms in Meghalaya, Andhra Pradesh, Kerala, Tamil Nadu and Rajasthan have reportedly suspended their bottling operations following massive protests by villagers.
- Hotels, marriage halls, recreation clubs, manufacturing firms and building contractors in many areas lift water illegally from nearby ponds and lakes mostly during night, thereby reducing the availability of water for the poor and livestock.
- **Residencies** - Residents in illegal multi-storied buildings and vast slums that are not connected to any official water pipelines are generally involved in stealing water.
- For instance, a housing society in Mumbai, which did not possess any occupation certificate, was reportedly penalised by BMC in 2017 for stealing water from its pipelines for almost 25 years.
- **Industrial Units** - About 2,000 to 10,000 private water tankers reportedly operate illegally on a daily basis in Delhi, Mumbai, Bengaluru and Chennai supplying loads of water mostly to industries.



- It is estimated that as much as 50 lakh litres of groundwater is extracted by the tanker mafia daily and sold to industrial units and construction sites in Gurgaon.
- According to the Centre for Science and Environment, around 20,000 illegal bore-wells were dug by tankers in Gurgaon.
- This could be the main reason why the annual groundwater draft of 0.39 BCM (billion cubic meters) is very high in Delhi as against the net availability of 0.31 BCM as per CGWB data.
- **Unaccounted water** – Analysis of various city development plans in India shows that water theft and unauthorised water connections gives rise to a high level of unaccounted water.
- A recent study on Water Governance (2013) reveals that unaccounted water in Delhi amounts to around 50% of the total water pumped into the system, whereas it is 35-40% in Hyderabad and Bengaluru.
- **Illegal diversion** - Water theft is so severe that in the worst situations, this can lead even to a lack of drinking water.
- The World Bank in its report, 'The Challenge of Reducing Non-Revenue Water in Developing Countries', reveals that 48 million cubic meters of drinkable water escape daily from official supply networks, which is enough to provide water for 200 million people.
- The same report on India had clearly highlighted that 40-60% of water in Mumbai is lost through illegal diversion.

14. INTERNAL SECURITY

14.1 Concerns on drone regulations

What is the issue?

Lack of clarity on the recently published drone regulations might affect competitiveness on this nascent field.

What are the concerns?

- India's regulations separate drones into five categories — nano, micro, small, medium and large.
- There is very little regulation for flying a nano up to 50 metres height, except for not flying near airports, military sites or in segregated airspace.
- From the micro category, every drone must obtain a unique identification number (UIN) from the aviation regulator.
- It will be followed by a long list of documentation including security clearances from the Ministry of Home Affairs (MHA) in several cases.
- Once the UIN is obtained, drone operators have to apply for an Unmanned Aircraft Operator Permit (UAOP) which includes more forms, more annexures and more submissions.
- Even for the micro drones that climb only up to a height of 200 feet, users have to intimate the local police station 24 hours prior to the flight.
- Manufacturers of drones, technologists and researchers making applications using drones have to test fly drones frequently, often several times a day.
- This makes the structure of these regulations paving the way for possibility of red tapism.
- With so many government authorities involved in allowing permission, it is inevitable that operators could be slapped easily with real and perceived violations.
- To avoid this, the regulation provides a list of identified areas for testing and demonstration so that flying drones in these areas comes with less paperwork.
- However, the locations provided are far from technology and development hubs that further complicates practical testing of these drones.
- For example, in Karnataka, the identified areas are Chitradurga, Coorg and Ganimangala village, all of which are around 200 km from Bengaluru entailing nearly four hours of travel one way.

What is the case with other countries?



- According to Global Market Insights, China’s drone economy, including manufacturing and development, will be worth \$9 billion in 2020.
- The commercial drone market of US is also expected to be \$2.05 billion by 2023.
- Switzerland has an enormous number of people interested in flying drones and developing drone-based applications.
- One of their drones helps analyse which plants are deficient in nitrogen, enabling farmers to add corrective fertilizer only where necessary.
- This has resulted in higher yield and significantly lower usage of fertilizers and herbicides, which attracts customers all around the world.

14.2 Facebook Data Breach

Why in news?

Facebook has put out more details about the data breach that happened between July 2017 and September 2018.

What is the recent picture on data breach?

- Facebook has claimed that fewer users - 30 million, not 50 million - had their access tokens stolen by exploiting 400,000 accounts.
- But crucially, the new revelation is that 15 million of the 30 had their name and contact details (phone numbers or e-mails) stolen.
- This was depending on what people had on their profiles.
- Another 14 million had details like gender, relationship status, their birth date, recent searches, and the last 10 places the person had checked into or were tagged in stolen.
- This was along with name and contact details like others.
- Just 1 million of the 30 had none of their data compromised.
- But Messenger, Messenger Kids, Instagram, WhatsApp, Oculus, Workplace, Pages, payments, third-party apps, or advertising or developer accounts have not been affected.

How was it done?

- The attackers moved from account to account using an automated script collecting tokens.
- This was done by repeatedly exploiting the vulnerability using access tokens for about 400,000 people.
- The attackers then used the list of friends they collected to “eventually steal access tokens for about 30 million people.
- So starting with the accounts they controlled directly, they moved to their friends and to their friends’ friends, and so forth.
- The attackers could see things about users like-
 - i. posts on their Timelines
 - ii. their list of Friends
 - iii. groups they’re members of
 - iv. the names of some recent Messenger conversations
- Facebook claims that the message content was not available to attackers.
- But even this could have been seen if the person was Page admin and had received a message from someone.

14.3 Need for Defence Reforms

What is the issue?

The state of India’s national security and defence is getting worse than before and are in a dire need of reform.

What are the recent measures?

National Security Council

- The NSC is an executive government agency tasked with advising the Prime Minister's Office on matters of national security and strategic interest.
- It is the apex body of the three-tiered structure of the national security management system in India.
- The other two tiers are the Strategic Policy Group (SPG) and the National Security Advisory Board (NSAB).
- The SPG is the first level of the three tier structure and forms the nucleus of the decision-making apparatus of the NSC.
- The NSAB consists of a group of eminent national security experts outside of the government.
- It provides a long-term prognosis and analysis to the NSC, and recommends solutions and address policy issues referred to it.



- The government set up a Defence Planning Committee (DPC) to assist in the creation of national security strategy, international defence engagement strategy and a roadmap to build -
 1. Defence manufacturing ecosystem
 2. Strategy to boost defence exports
 3. Priority capability development plans.
- It has also decided to revive the Strategic Policy Group (SPG) within the overall National Security Council (NSC) system.
- It has recently appointed the National Security Adviser (NSA) as the chairman of the Strategic Policy Group (SPG) of the National Security Council (NSC).

What are the concerns?

- **Centralisation** - There are concerns that appointing NSA to SPG would lead to further centralisation of decision making.
- The post of the NSA is also not a legally-mandated one and he has no parliamentary accountability.
- **LOC** - Overall violence in Jammu and Kashmir and ceasefire violations on the Line of Control reached a 14-year high in 2017, and did not subside in 2018.
- There are far more attacks on security forces and security installations in J&K, and militant recruitments and violence against civilians in the State are rising at an alarming rate.
- **Neighbourhood policy** - Though the government claims that the surgical strikes of 2016 gave a befitting response to Pakistan, it hardly made any significant gains in reality.
- A report of the Parliamentary Standing Committee on External Affairs recently revealed that the Chinese forces are back in the Doklam plateau with more force.
- The report goes on to fault the government for continuing with its conventionally deferential foreign policy towards China.
- India's neighbourhood policy holds a clear absence of vision on how to balance, engage and work with the many great powers in the regional and the broader international scene.
- **Defence preparedness** - India spends close to \$50 billion annually on defence and yet might still be ill-equipped to fight the wars of the modern age, especially in the neighbourhood.
- India also suffers from almost non-functional higher defence organisation and the defence policy doesn't hold any political oversight or vision.
- **Defence management** - There is little conversation between the armed forces and the political class, and even lesser conversation among the various arms of the forces.
- Our doctrines, command structures, force deployments and defence acquisition continue as though each arm is going to fight a future war on its own.
- **Institutional lacuna** - In India, talk of appointing a Chief of Defence Staff (CDS) has died down and the key post of military adviser in the National Security Council Secretariat (NSCS) remains vacant.
- The NSC almost never meets and the National Security Advisory Board, initially set up to seek 'outside expertise' on strategic matters, has become a space for retired officials.
- **Modernisation** - The state of modernisation and domestic defence industry in the country are in a sorry state.
- Under the present system, where the ratio of revenue to capital expenditure in defence is roughly 65:35%, any serious attempt at modernisation would be impossible.

What should be done?

- The country should have an overall national security document from which the various agencies and the arms of the armed forces draw their mandate.
- It should also enable them to create their own respective and joint doctrines which would then translate into operational doctrines for tactical engagement.



- In the absence of this, national strategy is broadly a function of ad hocism and personal preferences.

14.4 HAL Defence Capability

What is the issue?

- The union government is pessimistic about India's defence production capability.
- HAL need to demonstrate technological and production competence in this regard.

What are the concerns over HAL?

- In recent times Rafale controversy is playing out and the biggest fall guy from this is undoubtedly the Hindustan Aeronautics Limited (HAL), whose very credentials and existence are being questioned, even by government figures.
- This is problematic and worrisome, as it will denote disastrous consequences for HAL.
- In order to have a more nuanced perspective on the changing military industrial dynamics in India in current times, three fundamental issues are examined
 1. Dassault's non-selection of HAL as the prime point of share of manufacturing responsibilities (either as a nominated government entity or as an offsets partner).
 2. Dassault's reported position on HAL's refusal for a guarantee.
 3. Last but not the least, the Centre's own pessimistic position on capabilities of HAL in fulfilling manufacturing requirements.
- All three inter-related issues, taken together, point to the assumption that HAL appears unfit to undertake the desired responsibilities for the state.

What is HAL's stand on the allegations?

- HAL appears helpless at the moment, and it is a silent spectator in this political slugfest, where it cannot intervene on its own.
- HAL's own management is pessimistic and it can't even defend its position publicly as it is a government-owned enterprise.
- HAL is precariously positioned to carry out regular orders from higher-ups for responsibilities beyond its jurisdictions, which it is too weak to refuse.

What are the actual capabilities of HAL?

- HAL possesses requisite resources to undertake complex programmes across eras, managing from MiGs, LCA Mark I and IA, Su 30 MKI, LCH, UAVs, all licence productions and mid-life upgrades of types like Mirage, Jaguar, and HAWK AJT.
- Reasonable amount of expertise available within HAL to undertake complex programmes.
- HAL has already made impressive gains in terms of revenue and profits for the current financial year.
- HAL also enhanced capacity will be doubled with dedicated LCA division within Bengaluru complex and the new assembly line will soon increase production of aircraft to 16 from 8 per annum.
- Apart from everything HAL top leadership is confident of its future performance, only if the state allows.



PRELIM BITS

HISTORY AND ART & CULTURE

International Arya Mahasammelan

- The global convention of the Arya Samaj, the International Arya Mahasammelan 2018 was recently inaugurated in New Delhi.
- It aims to spread a message of human welfare originating from the Vedas, promote universal brotherhood and ensure safeguarding of social morals.
- The Arya Samaj declared representatives from 32 countries across Asia, Africa, Europe and North America will attend this global convention.

Channar Revolt

- Kerala Chief Minister has recently recalled an iconic civil rights protest – Channar revolt.
- It was happened in the erstwhile princely state of Travancore in the early 19th century.
- It is also referred to as MarumarakkalSamaram - Protest to cover the upper body.
- It began when women from the Channar caste who had converted to Christianity sought to cover the breasts, a right only Hindu upper caste women were allowed to exercise.
- The diwan of Travancore state, Colonel Munro, issued an order favouring the demand.
- The upper castes (Nairs) refused to allow the order to be followed and attacked (Nadar Christian) women who sought to wear an upper garment.
- In the face of resistance from the upper castes, the order was even amended to say that Nadar Christian women could wear a jacket (blouse) that was different from the dress worn by Nair women.
- The revolt exposed the caste fault-line that ran deep in the kingdom of Travancore.

Azad Hind Government

- 2018 is 75th anniversary year of the Azad Hind Government, founded on 21st October, 1943.
- It was inspired by Netaji Subhash Chandra Bose who was the leader of Azad Hind Government and also the Head of State of this Provisional Indian Government-in-exile.
- It was a part of the freedom movement, originating in 1940s outside India with a purpose of allying with Axis powers to free India from British rule.
- The existence of the Azad Hind Government gave a greater legitimacy to the independence struggle against the British.
- Pertinently, the role of Azad Hind Fauj or the Indian National Army (INA) had been crucial in bequeathing a much-needed impetus to India's struggle for Independence.

Ancient City of Sabratha

- It is located west of Tripoli in Libya's Mediterranean Coastal area.
- It is one of three former cities that constituted Roman Tripolitania.
- It was declared as a World Heritage Site by UNESCO.
- In 2016, UNESCO classified it as an "Endangered" site along with four other Libyan sites on its World Heritage list.
- The listing is because of great damage caused by armed groups and excavation and smuggling of antiquities due to lack of security.

Arya Samaj

- Arya Samaj was formed in the year 1875 by Swami Dayananda Saraswati.
- It emphasized on the liberation of the Hindu society.
- It believes in infallibility of Vedas. Dayananda Saraswati gave the slogan "Go back to the Vedas" to revive the true Vedic religion.
- It advocated widow remarriage, female education and equal status for women in the society.
- It strongly opposed idol worship, ritualism, practice of animal-sacrifice, the concept of polytheism, the idea of heaven and hell and fatalism.



Purana Qila

- It is an iconic fort in Delhi, believed to be constructed by the Mughal Emperor Humayun.
- It is known as “Dinpanah” meaning the “The refuge of the faithful”.
- It has 3 majestic gates – Humayun Darwaza, Bara Darwaza and Talaqi Darwaza, all built in red sandstones.
- The other attractions at the fort sites are Qila-I-Kuhna Masjid (Built by Sher Shah), Sher Mandal (Observatory) and Museum.
- This iconic site recently underwent a facelift after it was adopted by NBCC (Central PSU) under Ministry of Tourism’s Adopt a Heritage Scheme.
- NBCC in support with Archaeological Survey of India (ASI) has completed the refurbishment work in the site.
- The total cost of restoration is equally between ASI and NBCC through its CSR funds.

Restructuring of Shang-dongs

- Earlier this year, Buddhist monks in Leh’s Chushul village restructured a shang-dong into a stupa.
- This was a symbolic gesture to mark peace between man and wolf.
- Shang-dong is a traditional contraption used by Changpa people of Leh to capture the wolves that lift their prized pashmina goats.
- This wolf trap is made of stones and buried in the ground.
- Once the wolves leap in, the conical walls ensure they can’t clamber out.
- Generally, these wolves are caught and stoned to death.
- But researchers of the Nature Conservation Foundation (NCF), were long been concerned by the threats these traps posed to large carnivores including snow leopards.
- They found Buddhist communities had more positive attitude towards carnivores and they integrated “locally relevant religious philosophies” into conservation.
- It was also important to tighten the traditional link between culture, livelihood and conservation.
- So the shang-dongs which are a part of Changpa culture were not destroyed but merely dismantled.
- Additionally Pashmina wool produced by the people in the region are given ‘Snow Leopard Friendly’ certificate by NCF, if it meets 15 conditions including neutralising shang-dongs.
- Others include rotational grazing, maintaining a village wildlife reserve where grazing and hunting are prohibited, predator-proofing livestock corrals and stopping all retaliatory killing of carnivores including wolves and snow leopards.

GEOGRAPHY

Geological Sites in India

- Geological Survey of India has nominated two sites in India for the first time for Global Geoparks status.
- The sites are Lonar Lake in Maharashtra and St. Mary’s Island and Malpe beach in coastal Karnataka.
- **Lonar Lake** is an ancient circular lake created by a meteorite strike.
- It is the only known meteorite crater in basaltic rock and is world famous.
- It became a geo-heritage site in 1979.
- A meteorite estimated to weigh two-million-tonnes slammed into the Earth, creating a 1.83-km diameter crater where the lake formed.
- **St. Mary’s island** is a unique phenomenon where a hexagonal mosaic of basaltic rocks are present.
- It was declared as a national geo-heritage site in 1975.
- It is estimated to be an 88-million-year-old formation that goes back to a time when Greater India broke away from Madagascar.



Hexagonal Columnar Basaltic Lava in St. Mary's Island

Turbidity Currents

- Turbidity currents are fast-moving currents that sweep down submarine canyons, carrying sand and mud into the deep sea.
- However, there is more to them than just sediment-laden seawater flowing over the sea floor, and they also involve large-scale movements of the sea floor itself.
- This discovery could help ocean engineers avoid damage to pipelines, communications cables, and other sea floor structures.
- Turbidity currents are threat, as people place more and more cables, pipelines, and other structures on the sea floor.
- Turbidity currents are also important to petroleum geologists because they leave behind layers of sediment that comprise some of the world's largest oil reserves.

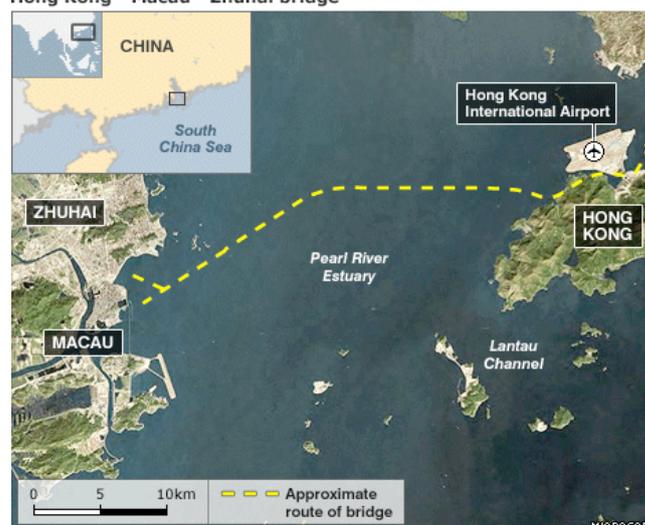
India's Longest River Bridge

- Union Government has recently announced that India's longest river bridge across the River Brahmaputra is going to be commenced soon.
- It will run between Dhubri in Assam and Phulbari in Meghalaya, which is close to the Bangladesh border.
- At 19.3 km, the new bridge will be twice as long as the Dhola-Sadiya bridge, which at present, is the longest in the country.
- The new bridge is likely to be completed by the year 2026-27.
- It is going to be funded by Japanese funding agency JICA.
- The 6.2 km long bridge in Arunachal Pradesh, over the river Dibang, was opened this year. Currently, it is the second longest in the country.

World's Longest Sea Bridge

- The world's longest sea bridge was recently inaugurated by China after 9 years of construction.
- It is a 55-kilometre stretch that connects Hong Kong and Macau to Zhuhai in the Mainland China.
- It is part of China's continued effort to drag the autonomous regions of Hong Kong and Macau closer to its orbit.
- Though the bridge aims to bring the autonomous regions closer to mainland China, it will be accessible only to a select few.

Hong Kong - Macau - Zhuhai bridge



Signature Bridge

- The Signature Bridge is constructed over the Yamuna river, meant to link north and northeast Delhi with Ghaziabad.
- It is 675 metres long and has taken nine years to complete with a budget of over Rs. 6 million.

- It is expected to be thrown open to traffic next week, after several missed deadlines.
- It was first approved by the Delhi cabinet in 2007 and has missed five deadlines, the first being in 2010.

Dal-Nageen Lake

- J&K administration has appointed an official for conducting a comprehensive bathymetric survey (study of underwater depth of lake or ocean floors) of the Dal-Nageen lake.
- The Nageen lake in Srinagar is a deep blue water offshoot of the Dal lake that is interconnected by a thin causeway.
- The lake is located to the east of the city of Srinagar, at the foothill of the Zabarwan Mountain.
- The Nageen lake is surrounded by a large number of willow and poplar trees. Hence, it has been referred as a "nageena", which means "the jewel in the ring".

Baishui Glacier

- The glacier is in China and it is one of the world's fastest melting glaciers.
- It is located in the Third Pole of the Earth, a region in Central Asia with the world's third largest store of ice after Antarctica and Greenland.
- Third Pole glaciers are vital to billions of people from Vietnam to Afghanistan.
- Asia's 10 largest rivers, including the Yangtze, Yellow, Mekong, and Ganges are fed by seasonal melting third pole glaciers.
- The melting of this glacier attracts large number of tourists.
- Scientists have already warned that the effects of glacier melting on water resources are gradually becoming increasingly serious for China.

C-FLOWS

- National Centre for Coastal Research (NCCR) has invented Chennai Flood Warning System(C-FLOWS).
- It is a six-module ensemble which can predict flooding due to heavy rainfall sea-level rise and increase in water levels of the three rivers Cooum, Adyar and Kosasthalaiyarthat traverse the Chennai city.
- The State government shared data such as ward boundaries, population details, and infrastructure available across Tamil Nadu, which have been used in the warning system.
- Knowing the elevation at different spots, the system can predict the way the area would flood based on different scenarios that have been simulated.

POLITY

Territorial Army

- The Territorial Army is a part of Regular Army.
- It was set up after the Territorial Army Act was passed in 1948.
- Before Independence, British raised territorial army in 1920 with two wings - European wing and Indian Volunteers wing.
- Its present role is to relieve the Regular Army from static duties and assist civil administration and provide units as and when required.
- It assists regular army in dealing with natural calamities and maintenance of essential services in situations where life of the communities is affected, or the security of the Country is threatened.
- Territorial Army units were actively involved in 1962, 1965 and 1971 operations.

Ganga Task Force

- The Ganga Task Force is a unit of the Territorial Army deployed in the services of the Ganga.
- It consists of 3 companies of over 100 men each to be stationed at Kanpur, Allahabad and Varanasi, with the Battalion headquarters at Allahabad.

- It is formed with the approval of Ministry of Defence and trained by the Defence ministry.
- They will be in force till December 2020.
- Mandates of the force -
 - i. Crowd management during Kumbh Mela,
 - ii. Spread awareness on keeping the river clean,
 - iii. Stop people and industry from polluting the river,
 - iv. Assisting during floods/natural calamity in the region,
 - v. Planting trees to check soil erosion and
 - vi. Patrolling sensitive river areas for biodiversity protection.
- They have also been trained by the Central Pollution Control Board to measure the health of the river.

Section 151A of RPA

- Section 151A of the Representation of the People Act deals with time limit within which casual vacancies in Parliament and State Legislatures should be filled through bye-elections by Election Commission of India (ECI).
- The section mandates ECI to fill the vacancies within 6 months from the date of occurrence of the vacancy **provided that the remainder of the term of a member in relation to a vacancy is one year or more.**
- There is a recent controversy in conducting bye-elections in Karnataka and Andhra Pradesh to fill vacancies in the Lok Sabha.
- The term of 16th Lok Sabha is upto 3rd June, 2019.
- ECI has started the process to fill the vacancies in Karnataka alone.
- This is because the vacancies in the seats of Lok Sabha from Karnataka occurred in the Month of May, 2018.
- Whereas, in A.P, the vacancies occurred in the month of 20th June, 2018.
- Thus, there is no need for conducting bye-election in A.P as the remaining term of the Lok Sabha is less than 1 year from the date of occurrence of vacancies.
- **Exception in Sec 151A** - If ECI in consultation with the Central Government certifies that it is difficult to hold the bye-election within the said period, then the section 151A can be overruled.

POSCO Act

- The Protection of Children from Sexual Offences Act, 2012 defines a child as any person below the age of 18 years.
- The act provides protection to all children from the offences of sexual assault, sexual harassment and pornography.
- Ministry of Women and Child Development has recently clarified that the POSCO act does not provide for any period of limitation for reporting the child sexual offences.
- Now, any victim, at any age, can complain the sexual abuse faced by him/her as a child.
- This has strengthened the legal provisions for the protection of children from sexual abuse and exploitation.

GOVERNMENT INITIATIVES

Global Skills Park (GSP)

- Global Skills Park is going to be established in the state of Madhya Pradesh.
- It is funded by Asian Development Bank (ADB).
- ADB and Government of India recently signed a \$150 million loan agreement to establish the park.
- GSP is the first multi-skills park in India.

- It aims to enhance the quality of Technical and Vocational Education & Training (TVET) System in the State and create a more skilled workforce.
- The GSP campus will be in Bhopal which consists of
 1. Core Advanced Training Institutes including the Center for Occupational Skills Acquisition,
 2. Center for Advanced Agricultural Training and
 3. Other support services focusing on entrepreneurship, training of trainers, and skill-related research.

Udyam Abhilasha

- It is a National Level Entrepreneurship Awareness Campaign.
- It is organised by Small Industries Development Bank of India (SIDBI).
- The campaign is organised in 115 Aspirational Districts identified by NITI Aayog in 28 States and reaching to around 15,000 youth.
- It provides entrepreneurship training to the aspiring youths across these districts thus encouraging them to enter the segment of entrepreneurs.
- It focuses on women aspirants in these aspirational districts to encourage women entrepreneurship.
- The campaign will be delivered through common service centres (CSC) in these districts.
- SIDBI has partnered with a CSC Special Purpose Vehicle (CSC SPV).
- CSC e-Governance Services India Limited is set up by the Ministry of Electronics & IT.

ROSHNI

- Roshni is a centre of Women Collectives led Social Action.
- It is established recently by the Ministry of Rural Development in collaboration with Lady Irwin college, New Delhi.
- It is under the ministry's National Rural Livelihood Mission (NRLM).
- It is technically and financially supported by UNICEF India.
- It aims to work with women collectives for social action on Food, Health, Nutrition and WASH (FHNW) interventions in line with NRLM's strategy.
- It supports implementation of action plan under POSHAN Abhiyaan.

FIDF

- Union cabinet has recently approved creation of Fisheries and Aquaculture Infrastructure Development Fund (FIDF).
- The nodal loaning entities for the fund are
 1. National Bank for Agriculture and Rural Development (NABARD),
 2. National Cooperatives Development Corporation (NCDC) and
 3. All scheduled Banks.
- The fund would provide concessional finance to take up investment activities of fisheries development.
- The beneficiaries are State Governments / UTs and State entities, cooperatives, individuals and entrepreneurs etc.,

National Monitoring Framework on SDG

- Union Cabinet has recently approved the constitution of a High Level Steering Committee for monitoring of Sustainable Development Goals (SDGs) with associated targets.
- The committee will periodically review and refine the National Indicator Framework (NIF) for SDG.
- The committee will be chaired by Chief Statistician of India and Secretary, Ministry of Statistics and Programme Implementation (MoSPI).
- United Nations General Assembly in its 70th session adopted SDG for 2015-2030.
- The 17 SDGs with 169 targets came into force with effect from January, 2016.



- SDGs are not legally binding, but it has become de facto international obligations to reorient domestic spending priorities of the countries.

Technology Summit

- The technology summit is being organised by Ministry of Science and Technology every year.
- The 24th edition of this summit is going to be organised with Italy as the partner country.
- In the past 18 years, several countries have become partner countries in this summit.
- This is the first time that Italy has been selected as partner country.
- The Summit is envisaged to serve as a wide-ranging knowledge-business partnership platform.
- It will also facilitate a comprehensive convergence of key elements of knowledge economy of India and Italy.
- Aerospace, Clean tech, Cultural Heritage, Education, Healthcare, ICT and Renewable are the seven focus sectors for this year's summit.

QS World University Ranking

- QS, the global higher education think tank, has recently released its first standalone ranking of India's higher education institutions.
- Indian University ranking by this think tank is the second country-specific rankings, after it released one for China earlier.
- The rankings include Public Universities, Private Universities and deemed universities.
- The ranking looks in to the Indian university system with an international lens.
- According to the recent ranking, IIT Bombay is named India's leading institution.
- Indian Institute of Science, Bangalore secured the second spot followed by IIT Madras in the third place.
- Interestingly, while IISc was India's best institution in the QS World University Rankings released earlier this year, the domestic league has pegged IIT-Bombay at first place.
- This variation is because of the difference in criteria taken in global and domestic level.

GOVERNMENT SCHEMES

IMPRESS Scheme

- Impactful Policy Research in Social Science (IMPRESS) has been launched by the Ministry of Human Resource and Development.
- It aims to promote policy research in social science.
- The objective is to identify and fund research proposals in social sciences with maximum impact on the governance and society.
- It will provide an opportunity to researchers from all universities (Central and State), private institutions with 12(B) status conferred by UGC.
- Under this, 1,500 research projects will be awarded for two years to support social science research in the higher educational institutions.
- The Indian Council of Social Science Research (ICSSR) has been entrusted with the task of implementing and monitoring the scheme.
- Some of the identified domains under the scheme are - State and democracy, Urban transformation, Media culture and society, Employment skills and rural transformation, Governance innovation and public policy, innovation, Agriculture and rural development, Social media and society, Politics law and economics.
- Each project under the scheme will conclude in 3 years.

SPARC Scheme

- A webportal for the Scheme for Promotion of Academic and Research Collaboration (SPARC) was recently launched by Union Human Resource ministry.

- It is a scheme for promotion of academic and research collaboration.
- It aims at improving the research ecosystem of India's higher educational institutions by facilitating academic and research collaborations between Indian and foreign institutions.
- The quality benchmark for SPARC is that only such Indian institutes can apply which are in top 100 NIRF ranking or top 100 NIRF subject ranking.
- For foreign universities the benchmark is either top 500 of QS ranking or top 200 of QS subject ranking.
- IIT-Khargapur is the national Coordinating Institute to implement the SPARC programme.

Make II Scheme

- Department of Defence production under Ministry of Defence has recently cleared 31 projects and has given them in-principle approval under the Make-II scheme.
- Make II Scheme corresponds to Make in India initiative in Defence production.
- The provision of 'Make' category in Defence procurement Procedure is a pillar for realising the vision behind Make in India.
- Make Scheme fosters indigenous capabilities through design & development of required defence equipment/product/upgrades by both public and private sector industry in a faster time frame.
- Make I scheme is **Government-funded** and the projects under 'Make-I' sub-category will involve Government funding of 90%.
- Make II scheme is **Industry-funded** and the projects involve development of products/equipment for which no government funding will be provided for development purposes.

International UDAN

- International UDAN, a new international air connectivity scheme is an extension of the domestic UDAN scheme.
- Domestic UDAN seeks to boost air connectivity by linking up un-served and under-served airports in Tier 2 and Tier 3 cities with the big cities.
- This is done by offering cheap tickets to passengers and the Central and State governments paying a subsidy to the airlines to enable them to offer cheap tickets.
- Under International UDAN, the plan is to connect India's smaller cities directly to some key foreign destinations in the neighbourhood.
- The scheme seeks to make use of the open skies policy that India has with other Asian countries that allows direct and unlimited flights to and from these nations to 18 Indian destinations.
- Unlike in domestic UDAN where both the Centre and the State government share the subsidy, it is only the State government that will provide the financial support for flights under international UDAN.
- Like the domestic UDAN, the financial support and flying exclusivity on the route will be for three years.
- Only Indian carriers can participate in the international UDAN scheme, and only aircraft with capacity of 70 seats or more can fly the foreign routes.

NATIONAL INSTITUTES IN NEWS

National Council for Vocational Education and Training (NCVET)

- Union Cabinet has recently approved the merging of two skill institutes to form National Council for Vocational Education and Training (NCVET).
- The merged two institutes are National Council for Vocational Training (NCVT) and the National Skill Development Agency (NSDA).
- NCVET is envisaged as an institution which will perform the regulatory functions so far vested in NCVT and NSDA.
- It will regulate the functioning of entities engaged in short-term and long-term vocational education and training.

- It will establish minimum standards for the functioning of such entities.
- It will operationalize the National Skills Qualification Framework (NSQF) to ensure that quality and standards meet sector specific requirements.
- Regulatory functions currently being carried out by the National Skill Development Corporation (NSDC) through the Sector Skill Councils (SSCs) will also be housed in the NCVET.

Indian Institute of Skills

- Union Cabinet has recently approved the setting up of Indian Institute of Skills (IISs) at different locations across the country in Public Private Partnership (PPP) mode.
- IISs shall augment the global competitiveness of key sectors providing high quality skill training, applied research education.
- Union government has already setup country's first Institute of skills at Kanpur.
- It was setup by Ministry of Skill Development and Entrepreneurship in partnership with the Institute of Technical Education, Singapore.

BILATERAL ISSUES

Extradition Treaty

- Union Cabinet has recently approved extradition treaty between India and Malawi.
- The Treaty would provide a legal framework for seeking extradition of terrorists, economic offenders and other criminals from and to Malawi.

Click [here](#) to know more about Extradition Treaty Vs Arrangement

INTERNATIONAL ORGANISATIONS

UNHRC

- India was elected to the UNHRC for a period of 3 years beginning January 1, 2019, getting 188 votes in the Asia-Pacific category.
- UNHRC has 47 seats with a term of 3 years. No member may occupy a seat for more than 2 consecutive terms.
- The UN General Assembly elects the members by absolute majority.
- The 18 new members (for next 3 years) were elected by absolute majority through a secret ballot.
- Countries needed a minimum of 97 votes to get elected to the Council.
- India was vying for a seat in the Asia Pacific category and got highest number of votes among all candidates.
- India had previously been elected for the 2011-2014 and 2014-2017 term.
- Along with India, Bahrain, Bangladesh, Fiji and Philippines had also staked a claim in the same regional group.

First Assembly of ISA

- The Ministry of New and Renewable Energy organised the first assembly of International Solar Alliance (ISA) in New Delhi.
- It will be inaugurated in the presence of Secretary General of United Nations.
- Ministers from countries which ratified ISA treaty framework will attend the assembly as members.
- Countries that have signed but are yet to ratify the ISA Treaty Framework will attend the Assembly as Observers.
- The assembly is the supreme decision-making body of ISA.
- Initially, ISA envisaged 121 countries situated between the tropics of Cancer and Capricorn as its members.
- In the assembly, India will propose to make all United Nations members eligible for ISA membership.

- It will help induction of countries - Germany, Italy, Spain, Tunisia, Nepal and Afghanistan, which have shown interest in becoming ISA members.

STAR C

- International Solar Alliance has recently approved Solar Technology Application Resource Centre (STAR C) project in its first assembly.
- The aim of the project is to set up 121 centres, one in each presently eligible member-country.
- Under the STAR-C, 500 personnel from 121 member countries would be trained in India on solar infrastructure.
- ISA has also provisionally approved the Work Plan 2019, under which agricultural pumps, finance mobilisation, mini grid, rooftop solar, and solar e-mobility and storage.

ASEM

- The 12th Asia–Europe Meeting (ASEM) is going to be held in Brussels, Belgium.
- The theme of this year's ASEM Summit is 'Global Partners for Global Challenges'.
- ASEM is an exclusively Asian–European forum, established in 1996 at the first summit in Bangkok, Thailand.
- It currently has 51 nations from the European Union and South Asia and 2 regional organisations (ASEAN, EU) as partners.
- India is also a member.
- The 3 pillars of ASEM are Political, Economic, Socio Cultural and Educational.
- ASEM involves biennial meetings of Heads of State and Government, alternately in Europe and Asia, and biennial meetings of Foreign Ministers as well as political, economic, and socio-cultural meetings and events at various levels.
- The grouping is a platform for non-binding discussion on economic and trade issues.

IORA - Renewable Energy Ministerial Meeting

- The Indian Ocean Rim Association (IORA) was set up with the objective of strengthening regional cooperation and sustainable development within the Indian Ocean Region.
- The association comprises 21 Member States and 7 Dialogue Partners.
- India, Australia, Iran, Indonesia, Thailand, Malaysia, South Africa, Mozambique, Kenya, Sri Lanka, Tanzania, Bangladesh, Singapore, Mauritius, Madagascar, UAE, Yemen, Seychelles, Somalia, Comoros and Oman are members of IORA.
- Neither Pakistan nor Myanmar are member of IORA.
- The Coordinating Secretariat of IORA is located at Ebene, Mauritius.
- The apex body is the Council of (Foreign) Ministers (COM).
- The first **Renewable Energy Ministerial Meeting** was held in Abu Dhabi, UAE in the year 2014.
- India hosted 2nd IORA Renewable Energy Ministerial meet in October, 2018.
- Ministers and delegates from all 21 member-countries are expected to participate.

International Solar Alliance (ISA)

- ISA, an Indian initiative, was launched jointly by India and France on the sidelines of COP21 of UNFCCC held in Paris.
- It opened ISA Framework Agreement for signature in Marrakech, Morocco in 2016, on the side-lines of COP-22.
- After ratification by 15 countries, ISA became the first full-fledged treaty based international intergovernmental organization headquartered in India.
- **Delhi Solar Agenda** was adopted in the founding conference of ISA held in 2018.
- In the agenda, ISA member States have agreed to pursue an increased share of solar energy in the final energy consumption in respective national energy mix.
- The first assembly will lay the foundation of Delhi Solar Agenda.
- Till date, out of 121 prospective member countries that lie either fully or partially between the Tropics of Cancer and Capricorn, 68 countries have signed the Framework Agreement of the ISA.



Delhi Declaration on Renewable Energy

- The Indian Ocean Rim Association (IORA) countries has adopted "Delhi Declaration on Renewable Energy in the Indian Ocean Region" in its 2nd Renewable Energy Ministerial Meeting.
- It calls for collaboration among IORA member states in
 - i. Meeting the growing demand for renewable energy in the Indian Ocean littorals,
 - ii. Development of a common renewable energy agenda for the Indian Ocean region and
 - iii. Promote regional capacity building
- As per the declaration, IORA member nations will collaborate with the ISA member nations to exchange knowledge and share potential interests in the renewable energy sector.
- **Global Renewable Energy Atlas** is the world's largest-ever joint renewable resource data project.
- IORA countries will undertake the expansion of Atlas which will be coordinated by International Renewable Energy Agency (IRENA).

ADMM

- The 12th ASEAN Defence Ministers Meeting (ADMM) and 5th ADMM-Plus were held recently Singapore.
- The conferences were attended by defence ministers from India, Australia, China, Japan, New Zealand, South Korea, Russia and US.
- ADMM and ADMM-Plus serves as key Ministerial-level platforms in regional security architecture for promoting strategic dialogue and practical cooperation between ASEAN and its partners.

Marrakesh Treaty

- European Union has recently ratified Marrakesh Treaty to ease access to reading material for print-disabled people.
- Marrakesh Treaty was adopted by United Nations - World Intellectual Property Organisation (WIPO).
- With the ratification of European Union, the treaty now expands to 70 countries.
- India was among the earliest to ratify the Marrakesh treaty in June 2014.
- The governments that are party to the Marrakesh treaty are obliged to adopt laws authorising the conversion of books into accessible formats such as braille, e-text, audio and large print by designated organisations.
- They are also allowed to exchange these alternative formats across national borders without clearance by copyright owners.

SCO Meeting on Urban Disaster

- India is going to host Shanghai Cooperation Organisation's meeting on Urban Disaster Handling.
- Pakistan has accepted India's invitation for the meeting.
- It involves the joint mock exercise on urban earthquake search and rescue by National Disaster Response Force (NDRF).

ASEAN

- The Association of Southeast Asian Nations (ASEAN) was established in 1967 in Thailand.
- ASEAN has 10 members namely, Brunei, Cambodia, Indonesia, Laos, Malaysia, Myanmar, Philippines, Singapore, Thailand and Viet Nam.
- ADMM-Plus is platform for ASEAN and its eight dialogue partners to strengthen security and defence co-operation for peace, stability, and development in the region

Shanghai Cooperation Organisation (SCO)

- SCO is a Eurasian political, economic, and military organisation which was founded by the leaders of China, Kazakhstan, Kyrgyzstan, Russia, Tajikistan, and Uzbekistan.
- India and Pakistan has recently become members of SCO in its 2017 meeting held at Astana, Kazakhstan.
- Observer status is given to Iran, Mongolia, Belarus, Afghanistan.
- The official working languages of the Shanghai Cooperation Organisation are Chinese and Russian.
- The Regional Anti-Terrorist Structure (RATS), headquartered in Tashkent, Uzbekistan, is a permanent organ of the SCO.
- It serves to promote cooperation of member states against terrorism, separatism and extremism.



- It will provide an opportunity to member-countries to validate their preparedness and resilience to various disasters and making humanitarian assistance in disaster response more effective.

INTERNATIONAL ISSUES AND EVENTS

Intermediate-Range Nuclear Forces Treaty

- The treaty was signed in the year 1987 between United States and Soviet Union.
- It required both countries to eliminate and permanently disown all of their nuclear and conventional ground-launched ballistic and cruise missiles with ranges of 500 to 5,500 kilometers.
- It did not cover sea-launched missiles.
- The treaty marked the first time the superpowers had agreed to reduce their nuclear arsenals, eliminate entire category of nuclear weapons.
- As a result of this treaty, superpowers destroyed a total of 2,692 short, medium and intermediate-range missiles by the treaty's implementation deadline of June 1, 1991.
- In 2014, United States has alleged that Russia violated the treaty and it has deployed the non-compliant missile.
- Recently, US announced that it is withdrawing from the treaty. USA Congress approval for the same is yet to be taken.

U.S.-Mexico-Canada Agreement (USMCA)

- USMCA is the recently concluded agreement among the countries to replace 25-year-old North American Free Trade Agreement (NAFTA).
- It gives the U.S greater access to the dairy markets of Canada and Mexico and allows extra imports of Canada cars.
- Canada managed to preserve the dispute settlement mechanism as a protection for its wood industry.
- This deal covers more than \$1 trillion trade.
- It is intended to last 18 years and will be reviewed every 6 years.

ECONOMY

Electoral Bonds

- Government of India has recently notified the Electoral Bond Scheme 2018.
- As per the provisions of the scheme, Electoral Bonds may be purchased by a person, who is a citizen of India or incorporated or established in India.
- A person being an individual can buy Electoral Bonds, either singly or jointly with other individuals.
- Political Parties which are eligible for receiving the electoral bonds must satisfy two criteria,
 1. The party must be registered under Section 29A of the Representation of the People Act, 1951 (43 of 1951).
 2. It should secure not less 1% of the votes polled in the last General Election to the House of the People or the Legislative Assembly of the State.
- The electoral bonds shall be encashed by an eligible Political Party only through a Bank account with the Authorized Bank.
- The bonds shall be valid for 15 calendar days from the date of issue and no payment shall be made to any payee Political Party if the Electoral Bond is deposited after expiry of the validity period.

Currency Swap Arrangement

- India and Japan have agreed to enter in to currency swap arrangement of \$75 billion.
- Currency swap arrangement means one country exchanges its national currency for that of another or even a third currency.
- Under this arrangement, India can acquire dollars from Japan in exchange for rupees.

- So, India can acquire yen or dollars from Japan upto \$75 billion in exchange for rupees under a fixed exchange rate.
- This exchange has to be reversed after an agreed period. Conversely, Japan can also seek dollars from India in exchange for yen.
- This facility will serve as a line of defence for our country's foreign exchange reserve.
- **Advantages** – Short –term liquidity mismatches can be met quickly.
- It will help stabilize the rupee, which has witnessed the steepest fall in recent years.
- It improves market sentiment, curbs speculative pressure on the rupee.
- Foreign Investors will draw comfort from the arrangement.

NBFC

- Kreditech, a Germany based company, has been licensed by the RBI to operate as an NBFC.
- It is the first-of-its-kind licence in Indian financial history for digital lending business and app-based financing by RBI.
- This digital lending NBFC offer two kinds of services,
 1. Individualised Direct-to-Consumer loans
 2. LAAS - Lending-as-a-Service Solution for Vendors, which allows partners to offer customised credit products to their customer.

Financial Stability and Development Council

- The council has met recently to discuss the issue of real interest rate, current liquidity situation.
- FSDC was established in 2010 with Union Finance Minister as its Chairman.
- Its members include
 - i. the heads of financial sector regulators (RBI, SEBI, PFRDA, and IRDA)
 - ii. Finance Secretary, Department of Economic Affairs
 - iii. Secretary, Department of Financial Services
 - iv. Chief Economic Adviser
 - v. Chairman of the Insolvency and Bankruptcy Board
- FSDC has two core functions:
 - i. to perform as an apex level forum to strengthen and institutionalize the mechanism for maintaining financial stability
 - ii. to enhance inter-regulatory coordination and promote financial sector development in the country
- It focusses on financial literacy and financial inclusion.
- It monitors macro-prudential supervision of the economy and also assess the functioning of the large financial conglomerates.
- FSDC sub-committee is chaired by the Governor of RBI.

Commercial Paper

- Commercial Papers are issued by companies with high-quality debt ratings for raising money to meet their short-term liabilities.
- Corporations, financial institutions, wealthy individuals and money market funds are usually buyers of commercial paper.
- It is usually issued at a discount from face value and reflects prevailing market interest rates.
- Maturities on commercial paper are usually no longer than 9 months.



- Unlike banks, Non-Banking Financial Companies (NBFC) do not have access to low-cost public deposits and have to heavily rely upon commercial paper and commercial debt markets.
- Banks and Mutual Funds are the main source of funding through commercial papers to NBFCs and housing finance companies.
- While large MFIs have access to bank finance, the mid-sized and smaller ones depend on funds from NBFCs.
- Small and mid-size NBFCs and Micro Finance Institutions (MFI) are going to face the liquidity crunch due to redemption of commercial papers due in November-March.
- Anticipating liquidity crunch, the RBI has announced Rs. 40,000-crore liquidity infusion in November through open market operations.

Commodity Derivatives

- The Bombay Stock Exchange became the first stock exchange in the country to launch commodity derivatives contract in gold and silver.
- Till date, commodity derivatives contracts are available only in the 2 specialised commodity derivatives - Multi-Commodity Exchange (MCX) and National Commodity Derivatives Exchange (NCDEX).
- The launch of commodity derivatives platform on the BSE will help in efficient price discovery, reduce timeline and make it cost-effective.
- BSE also waived off transaction charges for the first year in the commodity derivatives segment.
- Derivatives - They are financial contracts that derive their value from an underlying asset.
- These could be stocks, indices, commodities, currencies, exchange rates, or the rate of interest.
- These financial instruments help to make profits by betting on the future value of the underlying asset. Therefore, they are called 'Derivatives'.

Currency Monitoring List

- Currency Monitoring List is maintained by Department of Treasury, USA.
- The countries are placed in this list which have potentially questionable foreign exchange policies.
- India was placed for the first time in April this year, in this list.
- The other countries in the list are China, Germany, Japan, South Korea and Switzerland.
- In the latest report by department of treasury, it highlighted that India could be removed from the list citing India's foreign exchange market intervention and current account deficit.
- Reserve Bank of India (RBI) has noted that the value of the rupee is broadly market-determined, with intervention used only during "episodes of undue volatility".
- IMF projects that India's current account deficit to be around 2.5% of GDP over the medium term.

Growth Rate of States

- According to the recent ranking on growth rate, Andhra Pradesh has achieved the first rank in the country with an average growth of 10.5% during the last 4 years.
- It surpassed the average growth rate in the country which stood at 7.3% for 4 years.
- It is followed by Telangana in the 2nd place and Karnataka in the 3rd place.
- Andhra Pradesh is the only State to clock the double-digit growth rate.
- Gujarat, which is considered the most developed State, registered a growth of 10.5% in 2014-15 but it slipped in the following years.

ENVIRONMENT

POLLUTION

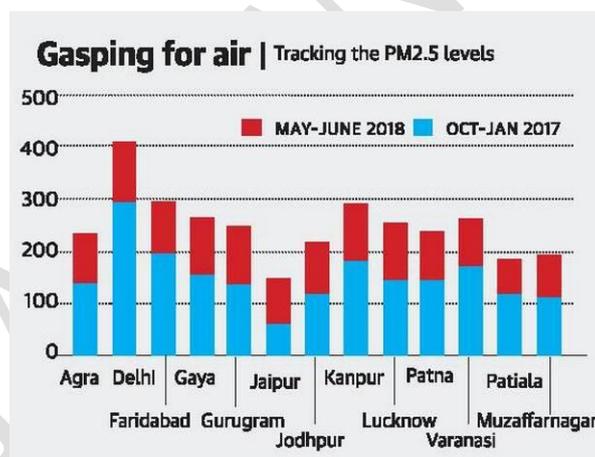
Status of Ambient Noise Level in India 2017

- It is a report published by the Central Pollution Control Board (CPCB).

- According to the report, Delhi is ranked as the noisiest metro followed by Kolkata, Bengaluru and Chennai.
- As per the National Environment Policy (NEP)-2006, ambient noise is included as an environmental quality parameter and must be monitored in specified urban areas regularly.
- Thus, CPCB has developed National Ambient Noise Monitoring Network Programme which includes installation of Noise Monitoring Stations all over India.
- The cities include Bengaluru, Chennai, Delhi, Hyderabad, Kolkata, Lucknow and Mumbai.

WHO Report on Child Health

- World Health Organisation has recently released report on “Air Pollution and Child Health”.
- According to the report, every day around 93% of the world’s children under the age of 15 years (1.8 billion children) breathe air that is so polluted it puts their health and development at serious risk.
- The report highlights the reason why children are particularly vulnerable to the effects of air pollution.
- One is that the children breathe more rapidly than adults and so absorb more pollutants.
- The other reason is that pollutants are often more concentrated nearer to ground level.
- It added that their developing organs and nervous system are also more susceptible to long-term damage than those of adults.
- The study found that in poorer countries, 98% of all children under five are exposed to PM_{2.5} above WHO guidelines.
- The report is being launched on the eve of WHO’s first ever Global Conference on Air Pollution and Health in Geneva.



AQI in Delhi

- Air Quality Index is a number used to communicate to the public how polluted the air currently is or how polluted it is forecasted to become.
- As AQI increases, an increasingly large percentage of the population is likely to experience increasingly adverse health effects.
- The AQI is most commonly used by Central Pollution Control Board (CPCB) to describe ground-level ozone levels.
- According to CPCB report, AQI score in Delhi for the season reached poor and severe category recently.
- The city registered an average AQI of 366, which falls in the ‘very poor’ category, based on the reading of 32 monitoring stations.
- Accordingly, CPCB has issued health advisories and recommended stringent measures from November 1 to 10 forecasting further deterioration in air quality ahead of Diwali.
- AQI takes in to account 8 pollutants and prepare a 6 grade colour code to reveal the severity of pollutants in air quality.
- These pollutants are - Ground-level Ozone or O₃, Particulate Matter (soot and dust) - PM 2.5 and PM 10, Carbon Monoxide or CO, Sulphur Dioxide or SO₂, Nitrogen Dioxide or NO₂, Lead or Pb and Ammonia or NH₃

Methanol Cooking Fuel Program

- Northeast and Assam Petro-chemicals, a state-owned company has launched Asia's first canisters based and India's first "Methanol Cooking Fuel Program".
- 1.2 liters of gaseous form of Methanol canisters can last for full five hours on twin burners and 8 such Canisters as rack can last for one month for a family of three.



- The cooking medium can directly substitute LPG, Kerosene, Wood, Charcoal and any other fuel for cooking.
- The cost of energy equivalent of one cylinder of LPG for Methanol is Rs. 650, compared to Rs. 850 per cylinder resulting in a minimum of 20% Savings.
- This provides for an excellent alternative as household fuel and commercial, institutional and fuel for restaurants.

GOVERNMENT INTERVENTIONS

Prakriti Programme

- The programme is launched by the Indian Council of Forestry Research and Education (ICFRE), Navodaya Vidyalaya Samiti (NVS), and Kendriya Vidyalaya Sangathan (KVS).
- It aims to promote awareness about forests and environment among the students of NVS and KVS.
- Its objective is to provide a platform to school children to learn practical skills for judicious use of resources and to mobilise a cadre of youths to conserve forests and the environment.
- It focusses upon stimulating interest and maintaining a balanced environment and acquiring skills that reflect care and protection towards forests, environment and society.
- ICFRE is an autonomous body under the Ministry of Environment, Forest and Climate Change.
- The objective of Navodaya Vidyalaya Samiti is to provide modern quality education to talented children, predominantly from the rural areas, without regard to their family's socio-economic condition.

ZSI survey on Moths

- Zoological Survey of India (ZSI) has recently conducted a study on moths.
- It revealed that moth insects are acting as pollinators to a number of flowering plants in the Himalayan ecosystem.
- The insect order Lepidoptera comprises the butterflies, moths, and skippers.
- They can be distinguished from all other insects by their two pairs of scale-covered wings and are renowned for their sense of smell.
- For most Lepidoptera species, the vast majority of the life cycle is spent in the larval stage.
- Butterflies and moths have numerous physical and behavioral differences. Eg. moths are nocturnal and butterflies are diurnal.
- **Role of pollinators** – They are essential for the genetic exchange among flowering plants and the biodiversity among plants.
- About 90% of the world's flowering plants are pollinated by animals.
- Usually bees, wasps and butterflies are considered as prominent pollinators.
- Almost two-thirds of common large moth species have declined over the last 40 years in some parts of world.
- One of main reasons for the decline is light pollution (an increase in artificial light in moth habitats).

DRDO's New Missile Test Range

- Union Environment Ministry has recently given nod to DRDO to set up its surveillance system including long range missile test range in Rutland island in South Andaman.
- Rutland Island is located at a vintage location of about 200 km from the Strait of Malacca that connects Indian Ocean with South China Sea.
- As of now, long-range missile tests are being carried out from the Odisha coast and are tracked by naval vessels.
- DRDO requires a land-based test area as well to accurately track its long-range missiles, with the island in the Andamans being ideally located due to its distance from mainland.
- Now, DRDO will have to obtain environment and coastal regulation zone (CRZ) clearances before commencing the project.

- The project involves the diversion of forest area from Mahatma Gandhi Marine National Park and reserve forest within 10km of the Eco Sensitive Zone.

Mammals of India (MaOI)

- MaOI is a part of Biodiversity Atlas (India project), which is an initiative of National Centre for Biological Sciences.
- It is an online, peer- reviewed, freely-accessible portal.
- It provides an opportunity to any person to upload geotagged photographic observations about mammals with information on habitat age of the observed individual.
- These observations will be reviewed by subject experts and uploaded on the website.

Singphan Wildlife Sanctuary

- Singphan wildlife sanctuary has been declared as an Elephant reserve by the Government of Nagaland.
- With the approval of Government of India, it becomes the 30th Elephant reserve in the country.
- The reserve lies in the North-western part of the State of Nagaland.
- The declaration will boost the elephant conservation in the country especially north eastern region.

SPECIES IN NEWS

Amur Falcons in Disputed territory

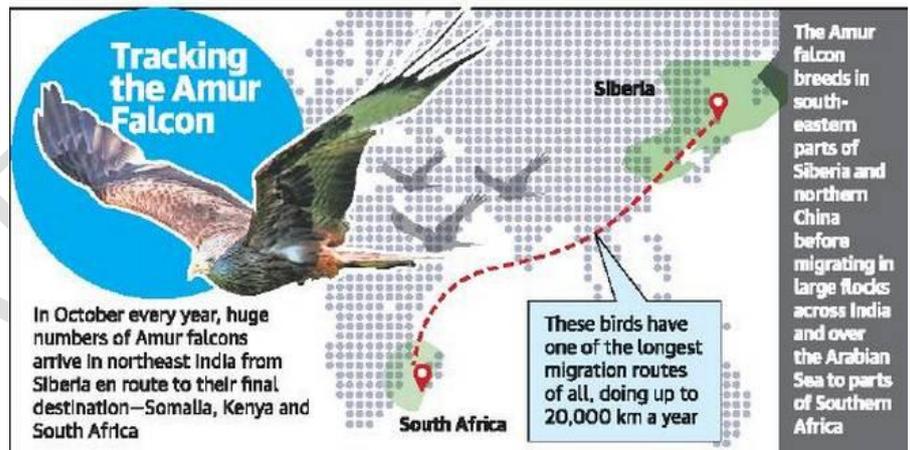
- Amur falcons are the world's longest travelling raptors.

- They migrate annually during winter from their breeding grounds in Mongolia, South-east Russia and northern China to warmer South Africa through India and across the Arabian Sea.

- They feed on dragonflies that follow a similar migration path over Arabian Sea

- Generally Doyang Lake near Pangti village in Nagaland's Wokha district is better known as a stopover for the Amur falcons during their annual migration.

- But a flock of these falcons has been seen since 2010 in Umru village on the Assam-Meghalaya border.
- Umru in Block II is one of 12 disputed areas along the Assam-Meghalaya border, since Meghalaya was carved out of Assam in 1972.
- Assam claims the village is under East Karbi Anlong district while Meghalaya asserts it is under Ri-Bhoi district.
- But these disputes are forgotten when the village welcomes the falcons in mid-October, uniting to ensure a safe stay for the birds.
- Both Gorkha and Khasi tribal communities have made common cause in protection of the Amur falcons and have fixed a fine of ₹ 25,000 for anyone caught ensnaring or killing the birds.
- Amur Falcon Festival is also been organised since 2015.



Eurasian Otter

- Otter is a carnivorous mammal and there are 7 subspecies found in 3 continents - Europe, Asia and Africa.
- The Eurasian otter found in all the 3 continents is considered to be "Near Threatened" in IUCN Red List.



- It lives in a wide variety of aquatic habitats, including highland and lowland lakes, rivers, streams, marshes, swamp forests and coastal areas independent of their size, origin or latitude.
- Eurasian otter is the one of the least-known of India's 3 otter species (Eurasian, smooth-coated & small-clawed otters) in Western Ghats.
- It has been recorded historically from the Western Ghats - Coorg in Karnataka and Tamil Nadu's Nilgiri and Palani hill ranges.
- Though its range is wide, it is not as frequently sighted as other two otters in India.
- All 3 species of otters in India are protected under the Wildlife Protection Act and are listed in CITES Appendices.
 - i. Eurasian Otter - CITES Appendix I; WPA Schedule II
 - ii. Smooth Coated Otter - CITES Appendix II; WPA Schedule II
 - iii. Clawless Otter - CITES Appendix II; WPA Schedule I

Asiatic Lions

- There are only 700 Asiatic lions in the wild, and they only live in the Gir Forest area, India.
- At present Gir National Park and Wildlife Sanctuary in Gujarat is the only abode of the Asiatic lion.
- It is listed in Schedule I of Wildlife (Protection) Act 1972, in Appendix I of CITES and as Endangered on IUCN Red List.
- The asiatic lions in Gir Sanctuary, has recently been succumbed to the deadly infection of canine distemper virus (CDV) and tick-borne babesiosis.
- Canine Distemper Virus is a contagious and serious disease that attacks the respiratory, gastrointestinal and nervous systems of species of cats and dogs family.
- Babesiosis is caused by a parasite that infects red blood cells and transmitted by ticks.

Cheetah Reintroduction Project

- Cheetah was declared extinct in India in the year 1952.
- Wildlife Institute of India started this ambitious Cheetah Reintroduction Project in 2009.
- The project focused on relocating cheetah from Namibia in Africa to Nauradehi sanctuary in Madhya Pradesh.
- This project had hit a roadblock for want of funds.
- The Madhya Pradesh forest department has written to the National Tiger Conservation Authority to revive the plan to reintroduce cheetahs in the State's Nauradehi sanctuary.
- The sanctuary was found to be the most suitable area for the cheetahs as its forests are not very dense to restrict the fast movement and the prey base is also in abundance.
- It is the largest wildlife sanctuary in Madhya Pradesh, extending across the river basins of Narmada and Ganga.

AGRICULTURE

Global Soil Biodiversity Atlas

- The Atlas is prepared by World Wide Fund for Nature.
- It indicates risk index which takes in to account, threats from loss of above-ground diversity, pollution and nutrient over-loading, over-grazing, intensive agriculture, fire, soil erosion, desertification and climate change.
- The two key drivers of biodiversity loss were the over exploitation of natural resources and agriculture.
- The risk index shows India among countries whose soil biodiversity faces the highest level of risk.
- The report highlighted that, while India's per capita ecological footprint was less than 1.75 hectares/person (which is in the lowest band, among countries surveyed) its high population made it vulnerable to an ecological crisis.



- The other countries which are placed along with India - Pakistan, China, several countries in Africa and Europe, and most of North America.
- The findings under this are part of the bi-annual Living Planet Report 2018.

Future Policy Gold Award

- This award is given by UN Food and Agriculture Organisation (FAO) and co-organised by World Future Council (WFC) and IFOAM Organics International.
- The award is nicknamed the "Oscar for best policies".
- It recognises the world's best laws and policies promoting agroecology.
- Sikkim State has won the 2018 award for its achievement in becoming the world's first totally organic agriculture state.
- Sikkim beat out 51 other nominees from around the world for the award.
- Brazil, Denmark, Quito and Ecuador shared the Silver award.

World Future Council

- It is an independent body with 50 eminent members from governmental bodies, civil society, business, science and the arts.
- It is registered as a charitable foundation and headquartered in Hamburg, Germany.
- It focuses on policy solutions that serve the interests of future generations.

World Agriculture Prize

- The first world agriculture prize was instituted by the Non-Governmental organisation Indian Council of Food and Agriculture.
- The prize was launched recently as a part of the Global Agriculture Leadership Summit and AgroWorld 2018 in New Delhi.
- It is going to be presented annually to an individual or institution, who played seminal role in transforming agriculture globally and saving the humanity from the curse of hunger.
- Any individual or institution, private or public organization, may apply or submit a nomination for this prize.
- Professor M.S. Swaminathan, founder of the M.S. Swaminathan Research Foundation (MSSRF), was awarded the first World Agriculture Prize.

SCIENCE AND TECHNOLOGY

SPACE

Voyager 2

- NASA has recently reported that Voyager 2 is nearing heliosphere (Sun's outer border) and could soon enter interstellar space.
- Voyager 2 is the space probe launched by NASA in 1977 to study the outer planets (Jupiter, Saturn, Uranus and Neptune).
- **Heliopause** - The place where the sun's constant flow of material and magnetic field stop affecting its surroundings.
- Heliopause marks the end of a region created by our sun that is called the heliosphere.
- The sun creates **heliosphere** by sending a constant flow of particles and a magnetic field out into space at over 670,000 miles per hour. This stream is called the 'solar wind.'
- **Interstellar Space** is the part of space that exists between stars with cold particles around it.
- Inside the heliosphere, the solar particles are hot but less concentrated. Outside of the bubble, they are very much colder but more concentrated.
- Once an object arrives in interstellar space, there would be an increase of "cold" particles around it.

Bepi Colombo mission

- It is a first mission of its kind by European Space Agency to Mercury.



- A UK-built spacecraft will determine if the nearest planet to the Sun contains water.
- The mission will send two orbiters to explore the fiery world where the surface temperatures reach about 450°C.
- Till now, only 2 spacecraft have been to Mercury, NASA's Mariner 10 and Messenger.

Chandra Telescope

- Chandra X-ray observatory, a space based telescope, was launched by NASA in 1999.
- It is specifically designed to detect X-ray emission from very hot regions of the universe such as exploded stars, clusters of galaxies, and matter around black holes.
- Since the Earth's atmosphere absorbs the vast majority of X-rays, they are not detectable from Earth-based telescopes.
- It has recently entered a protective 'safe mode', which interrupts scientific observations and puts the spacecraft into a stable configuration.
- It is one of the Great Observatories, along with the Hubble Space Telescope, Compton Gamma Ray Observatory (1991–2000), and the Spitzer Space Telescope.

MarCO Mission

- MarCO stands for Mars Cube One and designed by NASA.
- The mission has twin low-cost cube sats – MarCO A and MarCO B.
- The two cubesats are boarded in Insights Lander to Mars.
- The objective of the mission is to find out whether briefcase-sized spacecraft called CubeSats could survive the journey to deep space.
- By verifying cubesat as a viable technology for interplanetary mission, it could lead to many other applications to explore and study our solar system.
- It has recently beamed back an image of Mars, visible as a tiny red dot against the dark sky.
- CubeSats are a class of spacecraft based on a standardized small size and modular use of off-the-shelf technologies.

DEFENCE

Unmanned Drone

- China has successfully tested the world's largest unmanned transport drone.
- Feihong-98 (FH-98) is a large commercial unmanned aircraft which can carry payload of 1.5 tonnes.
- It has a cruising speed of 180 kilometers per hour and a maximum range of 1,200 kms.

Sukhoi Su-30MKI

- The first indigenously overhauled Sukhoi Su-30MKI supersonic aircraft was recently handed over to the Indian Air Force.
- During the overhaul, the aircraft was stripped completely and rebuilt from scratch, replacing certain worn out parts/components.
- The aircraft was overhauled in country's only fighter aircraft repair depot "Ojhar" in Maharashtra.
- Sukhoi Aircraft was developed by Russia. The license for building it was given to Indian Air Force in the past 2 decades.
- It is twin-finned, twin-jet multi-role aircraft capable of attaining speeds of Mach 2 at high altitudes.
- It can carry guns, missiles, bombs, rockets and other weaponry.

MiG-21 Fighter Jets

- MiG is a product of Soviet Union which entered in to the service in 1959.



- India inducted the MiG-21 in 1963 and got full technology transfer and rights to license-build the aircraft in the country.
- It is the first supersonic fighter aircraft of the Indian Air Force.
- Russia stopped producing the aircraft in 1985, while India continued operating the upgraded variants.
- In the upcoming India-Russia Bilateral summit, India is likely to gift 3 MiG fighter jets to Russia.
- MiG-21 fighter jets will be phased out of service by 2021-22.
- Tejas, an indigeneous fighter aircraft will replace the ageing MiG-21.

Hand-in-Hand

- It is an annual joint army exercise between India and China.
- The exercise was cancelled last year due to tense relations in the aftermath of the Doklam standoff.
- This year (7th edition), it will resume in Chengdu region in China.
- It was first held at Kunming (China) in the year 2007 and the last edition was held in Pune, 2016.
- It is seen as a sign of normalising relationship between India and China.
- The scope of the exercise is to understand transnational terrorism and evolve joint drills for the conduct of counter terrorism operations, in addition to Humanitarian Assistance and Disaster Relief operations.

IBSAMAR

- It is a joint Multi – National Maritime Exercise between the Indian, Brazilian and South African Navies.
- The 6th edition of IBSAMAR is being held at Simons Town, South Africa.
- The last edition was conducted off Goa in the year 2016.
- Its aim is to undertake collective training for participating navies, building interoperability and mutual understanding as well as sharing of best practices.

Sahyag HOP TAC

- It is a naval joint exercise between India and Vietnam.
- It was recently conducted off the Coast of Chennai.
- It was aimed at enabling the Coast Guard units to acquaint themselves with each other's capabilities, strengthening the working-level relationship to rescue lives at sea and refining joint operation procedures.

JIMEX - 18

- The 3rd edition of Japan-India Maritime Exercise (JIMEX) is going to be organized in Visakhapatnam.
- The last edition of JIMEX was conducted in Dec 2013 off Chennai.
- The conduct of JIMEX-18 after 5 years is indicative of an upswing in the Indo-Japanese defence relations.
- It is aimed to enhance interoperability, improve understanding and imbibe the best practices of each other.

Tri-Service Military Exercise

- India and France are in discussions for a bilateral tri-service military exercise to take forward the strategic cooperation.
- This will be India's third such joint exercise.
- The first joint tri-service exercise (Ex. INDRA) was held with Russia in October last year.
- India has recently finalised one with the U.S. to be held next year.
- **Current Military Exercises with France** - Shakti, Varuna and Garuda respectively for the Army, Navy and Air Force.

Cope India Exercise

- It is an air exercise between India and USA and first conducted in 2004.



- India, Japan and US are set to elevate this bilateral exercise to trilateral format.
- The next edition of this exercise is going to be held in December 2018.
- With this elevation, it is becoming similar to Malabar navy exercise among the three countries.
- Malabar exercise began in 1992 as a bilateral naval exercise between India and US. In 2015, it was expanded into trilateral format with the inclusion of Japan.

Exercise YudhAbhyas 2018

- Exercise YudhAbhyas is a joint Indo-US Military exercise.
- Its 2018 edition was recently concluded in Uttarakhand.
- The exercise was started in the year 2004 under US Army Pacific Partnership Programme.
- It is one of the largest joint running military training and defence corporation endeavors between India and USA.

OTHERS

Fusion Energy Conference

- The 27th edition of fusion energy conference was recently organised in Gandhinagar.
- It is organised by the International Atomic Energy Agency (IAEA) and hosted by the Department of Atomic Energy and Gandhinagar-based Institute of Plasma Research.
- It aims to provide a forum for the discussion of technology issues that are of direct relevance to the use of nuclear fusion as a source of energy.
- Innovative concepts on using nuclear fusion as a source of energy are discussed in this conference.

International Thermonuclear Experimental Reactor (ITER)

- ITER, the world's largest experimental fusion facility is in France.
- It is the most complex science project in human history, started in 2010.
- It will use hydrogen fusion, controlled by superconducting magnets, to produce massive heat energy.
- This nuclear fusion facility is an international cooperation among the European Union, Russia, the US, Japan, China, India and South Korea.
- It is the first industrial-scale fusion reactor and it will illuminate the way to produce clean, cheap, and abundant energy for millions of years.
- It will start generating a molten mass of electrically-charged gas "plasma" inside a core by 2025.

Oneer™

- It is a water disinfection system developed by Council Scientific and Industrial Research and Indian Institute of Toxicology Research, Lucknow.
- The system will eliminate all disease-causing pathogens such as virus, bacteria, fungi, protozoa to provide safe drinking water to communities.
- It is useful for continuous treatment of water to meet National and International standards prescribed for potable water (BIS, WHO etc.).
- The smaller unit of Oneer is particularly suitable for homes, street food vendors, and small establishments.

Train 18

- It is India's first engine-less semi-high speed train, rolled out recently by Chennai based Integral Coach Factory (ICF).
- It has been designed to maximum operating speed of 160 kmph.
- It will eventually replace the Shatabdi Express for inter-city travel and it will cut travel time by 15% compared to Shatabdi.
- This fully air-conditioned train is nicknamed "The NextGen Shatabdi".



- It is driven by a self-propulsion module and it is the first long-distance train without separate locomotive (engine).
- The Maximum train speed is 160 Kmph against 130 Kmph of Shatabdi.
- The Shatabdi trains were introduced in 1988 and are presently running on over 20 routes connecting metros with other important cities.

Shahi Litchi

- Shahi Litchi is mostly grown in Muzaffarpur and neighbouring districts in Bihar.
- It has recently got Geographical Indication Tag.
- It is known for its sweet, juicy, unique flavour and aroma.
- Other known GI from Bihar - Katrani rice, Jardalu mango and Magahi paan (betel vine).

Alphonso Mango

- The government has recently granted Geographical Indication (GI) tag to the Alphonso Mango from Ratnagiri, Sindhudurg and other adjoining areas in Maharashtra.
- Alphonso, the king of Mangoes, better known as 'Hapus' in Maharashtra, is in demand in domestic and international markets for its taste, pleasant fragrance and vibrant colour.
- A GI is a sign used on products that have a specific geographical origin and possess qualities or a reputation that are due to that origin.
- It is given to both man-made and natural products. However it is a community right rather than individual or company.
- It is protected under Geographical indications of goods (registration and protection) act, 1999.
- It is managed by Cell for IPR promotion and Management (CIPAM) under the Department of Industrial Policy and Promotion (DIPP), Ministry of Commerce and Industry.

Click [here](#) to know more about GI.

Bio-electronic Medicine

- Scientists have recently developed world's first bio-electronic medicine.
- It is an implantable, biodegradable wireless device that speeds nerve regeneration and improves the healing of a damaged nerve.
- It delivers regular pulses of electricity to damaged peripheral nerves, accelerates the regrowth of nerves and enhance the ultimate recovery of muscle strength.
- This Bio-electronic medicine technology provides therapy and treatment directly at the site for a relevant period of time, thereby reducing risks associated with conventional, permanent implants.
- The ability of the device to degrade in the body eliminates the additional risk for surgery to remove a non-biodegradable device.

Marijuana

- Canada has become the second country after Uruguay to legalise possession and use of recreational cannabis.
- It is the first industrialised nation to do so.
- Medical marijuana has been legal in the country since 2001.
- Marijuana is a psychoactive drug from the Cannabis plant used for medical, recreational & religious purposes.
- Cannabis can be used by smoking, vaporization, within food, or as an extract.
- It creates mental and physical effects, such as a "high" or "stoned" feeling, a general change in perception, and an increase in appetite.
- Short term side effects may include a decrease in short-term memory, dry mouth, impaired motor skills, red eyes, and feelings of paranoia or anxiety.



- Long term side effects may include addiction, decreased mental ability and behavioural problems in children whose mothers used cannabis during pregnancy.

Bombay Blood Group

- The general types of blood group are A, B, AB and O, matching of the blood types of the donor and the recipient is vital, else it could lead to serious life-threatening complications.
- Apart from the general blood group types like O, A, B, or AB, there is a special type called (hh)-, a rare one first discovered in Bombay in 1952, and hence christened as Bombay Blood.
- People who carry this rare blood type, about 1 in 10, 000 Indians, can accept blood only from another Bombay Blood type individual, and not from anyone who is O, A, B or AB type.

Open Insulin Project

- It is a California based initiative trying to develop an open-source protocol for manufacturing off-patent insulin.
- It is similar to movements in the software industry in 1980s & 90s that successfully made open source operating systems.
- This project was founded in 2015 through crowd funding .
- It aims to make and refine synthetic insulin from E.Coli bacteria and document their process, so that generic pharmaceutical company can use to make affordable insulin for patients all over the world.

Zika Virus

- Indian Council of Medical Research (ICMR) surveillance system has recently detected cases of Zika Virus in Jaipur.
- Zika virus is a member of the virus family Flaviviridae.
- It is a mosquito-borne disease transmitted by Aedes mosquitoes.
- It can be passed from a pregnant woman to her fetus. Infection during pregnancy can cause certain birth defects.
- Zika infection during pregnancy can cause a birth defect of the brain called microcephaly and other severe brain defects.
- It is also linked to other problems, such as miscarriage, stillbirth, and other birth defects.
- There is no vaccine or medicine for Zika.
- The disease is currently being reported by 86 countries worldwide.
- Symptoms of Zika virus disease are similar to other viral infections such as dengue, which include fever, skin rashes, conjunctivitis, muscle and joint pain and headache.
- In India, the first outbreak was reported in Ahmedabad in January-February 2017 and 2nd outbreak in Krishnagiri district in Tamil Nadu.
- Both were successfully contained through intensive surveillance and vector management.
- According to WHO, Zika is no longer a public health emergency of international concern.

Diphtheria

- Government hospitals in Delhi has reported a dozen diphtheria deaths in children over the past two weeks.
- Diphtheria is a highly contagious respiratory disease caused by the **bacterium** Corynebacterium diphtheria.
- It primarily infects the throat and upper airways and produces a toxin affecting other organs.
- The toxin causes a membrane of dead tissue to build up over the throat and tonsils, making breathing and swallowing difficult.
- The disease is spread through direct physical contact or from breathing in the coughs or sneezes of infected individuals.

- It can be fatal if left untreated but has become increasingly rare in recent decades due to high rates of vaccination.

Polio

- Polio is a highly infectious disease caused by a virus.
- It invades the nervous system, and can cause total paralysis (Acute flaccid Paralysis) in a matter of hours.
- The virus is transmitted by person-to-person spread mainly through the faecal-oral route or, less frequently, by a common vehicle (for example, contaminated water or food).
- It mainly affects children under 5 years of age. Polio vaccine, given multiple times, can protect a child for life.
- There are three types of polio virus strains - P1, P2 and P3.
- P2 was eradicated globally in 1999. The last case due to type-2 wild poliovirus globally was reported from Aligarh in India in 1999.
- India reported its last polio case in 2011 and is also declared polio-free by WHO in 2014.
- India eliminated the type-2 strain in 2016, and the type-2 containing poliovirus vaccine (ToPV) was phased out in April 2016.
- Recently, Traces of polio type-2 virus were found in some batches of oral polio vaccine (OPV) manufactured by a Ghaziabad-based pharmaceutical company.
- Union health ministry has asked the polio surveillance team in Uttar Pradesh to trace all children who were given the vaccine.

Elimination and Eradication

- Elimination means stopping the transmission of a disease in a specific geographic area or country, but not worldwide.
- Disease eradication is the permanent reduction of a disease to zero cases through deliberate measures such as vaccines.
- Once a disease has been eradicated, intervention measures are no longer needed.

INDEX AND REPORT

Commitment to Reduce Inequality Index

- The index is developed by Oxfam and Development Finance International.
- The Index ranks 157 countries on their policies on social spending, tax, and labour rights.
- According to the index, Denmark topped the list in reducing inequality.
- Nigeria, Singapore, India and Argentina are among a group of governments that are fueling inequality.
- India fared poorly, ranking 147 out of 157 countries, in terms of its commitment to reducing inequality.
- Regionally, India ranks 6th among the eight South Asian nations.
- On public spending and on labour rights India ranks 6th, but India is placed on the top in terms of progressiveness of tax policy.
- Among the emerging economies, China was ranked 81st on the list, Brazil 39th and Russia 50th.
- Among rich countries, USA showed a lack of commitment towards closing the inequality gap.

Global Competitiveness Index

- It is published by World Economic Forum annually.
- The index covers 140 nations and it measures national competitiveness.
- It assesses competitiveness through the factors that determine an economy's level of productivity.
- According to the recent report, United States ranked first followed by Singapore, Germany, Switzerland and Japan.
- India has become the most competitive economy on the Global Competitiveness Index 2018.
- India's rank has been improved by five spots from last year.

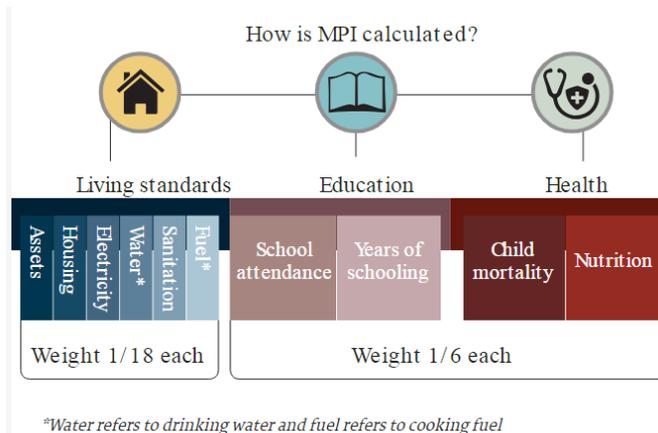
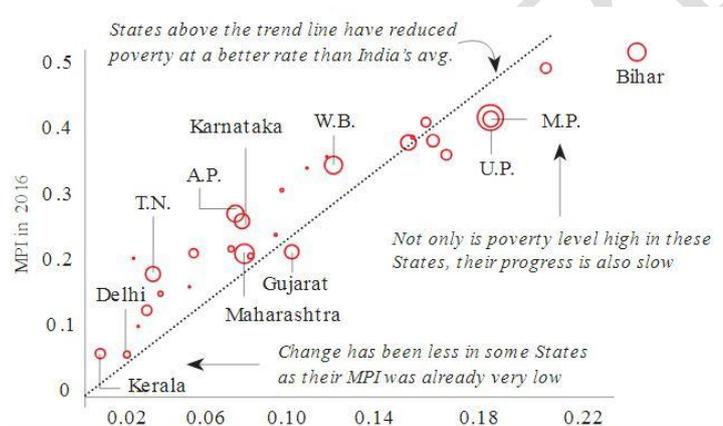
- India witnessed the largest gain among the G20 nations and highest among South Asian Countries.
- As for the BRICS nations, China topped the list at 28th position followed by Russian Federation, India, South Africa and Brazil respectively.
- The report stated that the global economy is projected to grow nearly 4% in 2018 and 2019.

Report on International Migrants

- Asian Economic Integration Report 2018 was recently released by the Asian Development Bank.
- The report has highlighted that most of the international migrants in 2017 were from India, followed by China and Bangladesh.
- The report further said as many as one third of international migrants were from Asia in 2017.
- According to the report, Asia continued as the largest source of international migrants globally although the number of Asian migrants headed to regional destinations declined slightly.
- According to UN recommendations, International migrants are those persons who have spent at least one year of their lives in a country other than the one in which they live at the time the data are gathered.

Multidimensional Poverty Index

- MPI is a measure that takes into account the incidence of poverty and the extent of deprivation.
- It is calculated by Oxford Poverty and Human Development Initiative and United Nations Development Programme (UNDP).
- The MPI value ranges between 0 and 1 and the value of 1 indicates the highest deprivation level, while 0 indicates the lowest.
- It has been calculated for 105 developing economies.
- India's MPI stood at 0.121 in 2016, half of what it was in 2006.
- India's MPI is lower than the global average of 0.159 and the South Asian countries but higher than BRICS countries (excluding Russia).



NOBEL PRIZE

- The Nobel Prize is a set of six annual international awards by Swedish and Norwegian institutions.
- The prizes are established by the will of Swedish inventor and industrialist Alfred Nobel.
- The awards are given annually in recognition of academic, cultural, or scientific advances.
- The prizes as established by his will are the Nobel Prize for Physics, the Nobel Prize for Chemistry, the Nobel Prize for Physiology or Medicine, the Nobel Prize for Literature, and the Nobel Prize for Peace.
- An additional award, the SverigesRiksbank Prize in Economic Sciences in Memory of Alfred Nobel, was established in 1968 by the Bank of Sweden.
- Although not technically a Nobel Prize, it is identified with the award.



Nobel Prizes - 2018

- Scientists Arthur Ashkin (USA), Gerard Mourou (USA) and Donna Strickland (Canada) won the 2018 **Nobel Prize for Physics**.
- Strickland from Canada, becomes only the third woman to win a Nobel prize for physics.
- They are awarded for breakthroughs in the field of lasers used for surgery as well as scientific study.
- **Nobel Prize in Chemistry 2018** is awarded in two parts.
- One half of the prize is awarded to Frances H. Arnold for the directed evolution of enzymes.
- In 1993, she conducted the first directed evolution of enzymes, which are proteins that catalyse chemical reactions.
- The other half jointly to George P. Smith and Sir Gregory P. Winter for the phage display of peptides and antibodies.
- Nobel Peace Prize 2018 is awarded to Denis Mukwege from Republic of Congo and Nadia Murad from Iraq.
- Denis Mukwege is a gynecologist helping victims of sexual violence in his country.
- Nadia Murad, a Yazidi rights activist and survivor of sexual slavery by Islamic State and she was a witness who tells of the abuses perpetrated against herself and others.
- Two immunologists, James Allison of the U.S. and Tasuku Honjo of Japan, won the **2018 Nobel Medicine Prize**.
- They won for their work on a new approach to cancer treatment.
- They figured out how to help the patient's own immune system tackle the cancer more quickly.
- It contradicts with traditional forms of cancer treatment that directly target cancer cells.
- For the first time in decades **no Nobel Prize for literature** will be given this year.
- This is due to a scandal over sexual misconduct allegations against members of the board of the Swedish Academy that awards it.
- The prize will be presented in Oslo on December 10, the anniversary of the death of Alfred Nobel.

New Academy Prize

- The New Academy Prize is organised to fill the gap left by the cancellation of Nobel Literature Prize, 2018.
- The prize is given by the New Academy, non-profit organisation in Sweden.
- The organisation was founded to warrant that an international literary prize will be awarded in 2018.
- It is also a reminder that literature should be associated with democracy, openness, empathy and respect.
- The winner of the prize is Maryse Condé from Guadeloupe, a French overseas region in the southern Caribbean Sea.
- The academy will be dissolved in December after the grand celebration of winner.

Nobel Memorial Prize in Economic Sciences

- Nobel Memorial Prize in Economic Sciences rewards the design of methods that addresses sustainable growth in the global economy and welfare.
- It is not formally a Nobel Prize.
- It was created by the Swedish central bank "in memory of Alfred Nobel" and first awarded in 1969.
- This year, it is awarded to William D. Nordhaus and Paul M. Romer from USA.
- Nordhaus is known for persuading governments to address climate change, preferably by imposing a tax on carbon emissions.
- Paul M. Romer is known for integrating technological innovations into long-run macro-economic analysis.