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A Shankar IAS Academy Initiative

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SHANKAR IAS ACADEMYTM

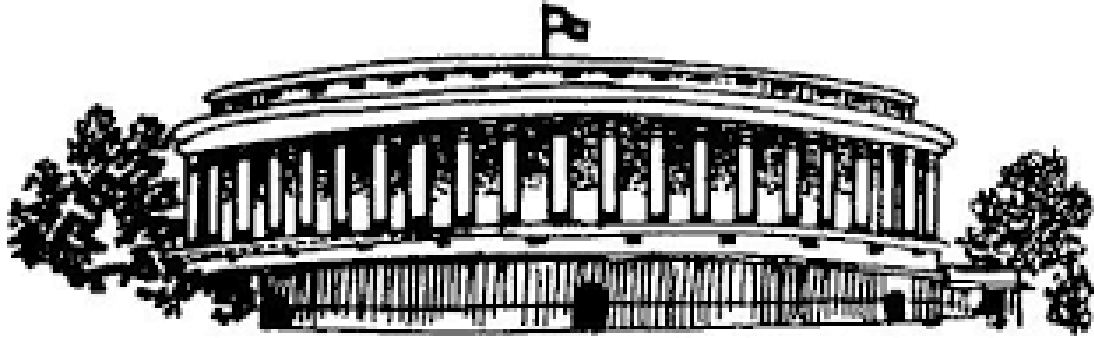
Door No.18, Old Plot No.109, New Plot No.259, AL Block, 4th Avenue,
Shanthi Colony, Anna Nagar, Chennai – 600 040.

Phone : 7667766260

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JULY 2017

G.S PAPER II

1. POLITY

1.1 CBFC culls Documentary

Why in news?

Central Board of Film Certification (CBFC) has refused to clear a documentary on Amartya Sen called 'The Argumentative Indian' until words such as "Cow", "Gujarat", "Hindutva" and "Hindu Rashtra" are either removed or beeped out.

What is the reason behind?

- CBFC is upset over Sen's views on cow vigilantism and associated lynchings, the Gujarat riots and the project to spread Hindutva ideology.
- It feels that the documentary might jeopardize the security in Gujarat.
- Apart from "Gujarat", CBFC earlier issued a list of banned terms which included "Bombay".

What does it imply?

- The arbitrariness of this list had caused the CBFC much embarrassment.
- The organisation is set up to protect the public from the excesses of cinema, now presumes to cull the thoughts of one of India's foremost public intellectuals.
- It is showing an unhealthy enthusiasm **for censoring rather than certifying**, which is the statutorily defined purpose.
- This government has been seen to be impatient with its critics.
- It curbs or trashes alternative opinions.
- It is having a stifling effect on creative expression in cinema, reflecting the attenuation of the public discourse.

CBFC

- It is a **statutory body** under Ministry of Information and Broadcasting, regulating the public exhibition of films under the provisions of the Cinematograph Act 1952.
- Films can be publicly exhibited in India only after they have been certified by the Central Board of Film Certification.
- The Board consists of non-official members and a Chairman (all of whom are appointed by Central Government).
- It functions with headquarters at Mumbai and has nine Regional offices.

1.2 Right to Privacy

What is the issue?

Supreme Court (SC) is hearing a case to decide whether right to privacy is a fundamental right.

What is the present status of right to privacy?

- Right to Privacy does not find any mention in the Constitution.
- This right has been picked from Article 19 and 21 which deals with right to life and liberty.
- In the absence of clarity, it has been defined only by a string of judgments.

What were the landmark judgements in this regard?

- **Kharak Singh vs. State of UP** - Extending the dimension of 'personal liberty,' the apex court declared right to privacy to fall under the purview of Article 21.
- The court defined the right of personal liberty in Art. 21 as a right of an individual to be free from restrictions or encroachments on his person, whether those restrictions or encroachments are directly imposed or indirectly brought about by calculated measures.
- **Govind vs. State of MP** - Right to privacy cannot be made an absolute right.
- Subject to reasonable restrictions, the right to privacy could be made valid.
- The right to privacy will have to go through a process of case by case development.
- **Rajagopal vs. State of T.N** - The court defined privacy as part of Article 21 and as a right to be let alone.
- A citizen has a right to safeguard the privacy of his own, his family, marriage, procreation, motherhood, childbearing and education among other matters.
- None can publish anything concerning the above matters without his consent whether truthful or otherwise and whether laudatory or critical.
- An exception in this case is, where a person voluntarily involves himself into a controversy or invites one.
- **Naz Foundation vs. Govt. of NCT Delhi** - The court cited Article 12 of the Universal Declaration of Human Rights and Article 17 of the International Covenant on Civil and Political Rights which define privacy as no arbitrary interference with home, family or honour and reputation.

What is Supreme Court rationale?

- The apex court laid down three categories under which the term privacy must fall for an individual to avail the said right.
- Any law interfering with personal liberty of a person must satisfy a triple test.
- It must prescribe a procedure;
- The procedure must withstand a test of one or more of the fundamental rights conferred under Article 19 which may be applicable in a given situation;
- It must also be liable to be tested with reference to Article 14.

Will SC's judgement stop Aadhaar?

- The heart of discussion should be on whether Aadhaar and the 'data' that it collects is an invasion of that right to privacy.
- Even if the right to privacy is judged as a fundamental right, it has to be proved that the UIDAI data actually invades privacy.

1.3 Right to Language

What is the issue?

The language data of the census are not made public by the government since 1961 census.

How is the language data handled in India?

- During the colonial times, language was treated as a 'sensitive' subject and was seen as a cause for breakdown of law and order.
- The information related to language data is handled by the Home Ministry.
- In 1961, a complete list of languages claimed during the Census as 'mother tongues' was disclosed as 1652.
- From 1971 onwards, the Census decided to disclose names only of those languages which had more than 10,000 speakers.
- The rationale behind this move was not specified.
- As a result, the list of 1971 had only 108 language names.
- 2001 language data put together several languages under a single category, undermining their diversity.
- The 2011 language data has not been released yet.

How significant is the 'right to language'?

- UNESCO has been promoting the idea of language as an inalienable cultural right.
- It has already built it into the charter of sustainable development goals.
- India is a formal signatory to the charter.
- The community's right to its language becomes a non-negotiable right to cultural possession.
- Similarly, the state's obligation to secure and protect this right too becomes a non-negotiable duty.

Why is it important to release the data?

- It is important for those who belong to the linguistically minority communities.
- It helps them to take necessary action to preserve their language.
- Longevity of multiple language is essential for maintaining the cultural diversity of the country.
- Imparting education to children through their mother tongue is scientifically considered to aid full development of their cognitive and emotive faculties.
- So the data will help the government to identify the needs of various regions so that it can provide supportive materials in their mother tongue.

- The neglect of a community's language and its language loss are among the most important reasons for induced migration.
- So the data will help in understanding the demographic transitions like language induced migration to avoid urban sprawl.
- Hence, the disclosure of data related to languages should be made as a primary obligation of the state.

1.4 Special Status to J&K

Why in news?

- PIL plea was filed contending 35A.
- The Supreme Court Bench agreed to schedule the case before a three-judge Bench.

What is the view of J&K HC?

- J&K High Court earlier ruled that Article 370 assumed a place of permanence in the Constitution and the feature was beyond amendment, repeal or abrogation.
- It also observed that the President under Article 370 (1) was conferred with power to extend any provision of the Constitution to the State with such "exceptions and modifications" as may be deemed fit subject to consultation or concurrence with the State government.
- It said that J&K, while acceding to the Dominion of India, retained limited sovereignty and did not merge with it.
- It also clarified that Article 35A gave "protection" to existing laws in force in the State.
- Article 35A of the Indian Constitution empowers the J&K state's legislature to define "permanent residents" of the state and provide special rights and privileges to those permanent residents.

Why Special Status has been conferred to J&K?

- In 1947, after independence, the State of J&K decided not to join either Pakistan or India.
- India welcomed this decision, but Pakistan attempted to annex the State militarily.
- So the Maharaja of J&K sought Indian help to save his territory and people who were being killed and looted by the Pakistani militants.
- Subsequently an "**Instrument of Accession**" was signed which provided certain concessions for the autonomy of the State.
- This special status of the State is enshrined in **Article 370** of the Indian Constitution. This Article cannot be amended.

What are the provisions in 'Special Status'?

- The State of J&K has its own Constitution apart from Indian constitution.
- This state follows 'dual citizenship'- Citizenship of J&K and India.
- The residuary power of the state lies with the Legislature of the J&K and not the Parliament of India.
- Except for defence, foreign affairs, finance and communications, the Parliament needs the state government's concurrence for applying all other laws.

- The national emergency proclaimed on the grounds of armed rebellion, shall not have an automatic extension to J&K.
- The Governor of the State is to be appointed only after consultation with the Chief Minister of that State.
- Financial Emergency under Article 360 of Indian constitution cannot be imposed on the State.
- DPSP and Fundamental duties enshrined in the Indian constitution are not applicable to J&K.
- Apart from the President's rule, the Governor's rule can also be imposed on the State for a maximum period of six months.
- The preventive detention laws as mentioned in Article 22 of Indian constitution do not have an automatic extension to the State.
- The name, boundary or territory of the State of J&K cannot be changed by the Parliament without the concurrence of the State Legislature.
- 'Right to property is fundamental right - Article 19(i) (f) and 31 (2) of Indian constitution have not been abolished for this State.

1.5 Demand for a separate State Flag

Why in news?

Kannada and Culture Department of the state government recently notified the setting up of a committee to examine the feasibility and legal issues around the demand.

What is the Karnataka government's stand?

- The government has constituted a committee to look at the issues in the creation of a state flag.
- It stated that Karnataka already has an official state song and it feels that there is nothing wrong in having a state flag.
- It was also ensured that the national flag will always fly higher than the state flag.
- Karnataka has had an unofficial state flag since the mid-1960s when pro-Kannada groups were agitating against the screening of non-Kannada films in the state.



- The unofficial flag is flown every year on November 1, Karnataka's foundation day, and is a common sight at public places.

What is the centre's view?

- There is no provision in the Constitution for a state flag.

- Home Ministry stated that legally, there is no provision either for providing or prohibiting a separate flag for any state.
- It also said that if such a flag is created it would only represent the people and not the state.

2. GOVERNMENT POLICIES AND INTERVENTIONS

2.1 Child marriage amendment bill

Why in news?

President has given his assent to the Prohibition of Child Marriage (Karnataka amendment) Bill, 2016.

What is the status of child marriages in Karnataka?

- Karnataka is among the States that record a high number of child marriages.
- 23% of the total married population are child marriages.
- A large number of child marriage cases are reported from Dharwad, Belagavi, Bagalkot, Koppal, Raichur and Vijayapura districts.

What is the amended bill about?

- This bill will give greater power to the police and increasing the penalty for child marriage.
- It proposes rigorous imprisonment of one year for offenders.
- It also emphasizes penalties for those attending wedding ceremonies of minors.
- It enables any police officer to take cognizance of the offence.

2.2 Interstate water disputes bill

Why in news?

Recently Union government introduced Inter-State River Water Disputes (Amendment) Bill 2017.

What is interstate river water disputes act?

- The Interstate River Water Disputes Act, 1956 (IRWD Act) is an Act of the Parliament of India enacted under Article 262.
- It is applicable only to inter-state rivers / river valleys.
- Supreme Court and other courts do not have original jurisdiction over such disputes.
- They can interpret verdicts of tribunals.
- When the tribunal final verdict issued based on the deliberations on the draft verdict is accepted by the central government and notified in the official gazette.
- The verdict becomes law and binding on the states for implementation.

What are the provisions included in the amendment?

- **Permanent body** - The bill proposes a permanent Inter-State River Water Disputes Tribunal (ISRWDT).
- In the current arrangement, tribunals are formed when a river water dispute arises.

- **Time bound** - The entire process is restricted to five-and-half years, taking into account all extensions, there is almost no limit on extensions in the current arrangement.
- **Specialized committee** - It provides for a Disputes Resolution Committee (DRC) to enable negotiated settlements.
- This is an interesting provision, evidently to avoid disputes advancing to the next stage of legal adjudication.
- **Data repository** - The other much touted provision for a data bank and information system.
- There is a similar provision in the current act as well, but it mandates the Centre to create such a repository.

What are the shortcoming of the bill?

- There is no clear mentioned provisions about speedy resolution of disputes.
- It doesn't fully recognise the need to plug holes in the interstate river water sharing, development and governance.
- In any case of data bank, the challenge is not about gathering data and information, but more about states agreeing over a particular piece of data.
- There are challenges in implementing the tribunal's awards.

2.3 Human DNA profiling

Why in news?

In a case regarding DNA collection, the government has told SC that it was in the process of finalising a fresh version of the draft Human DNA profiling bill.

What are the highlights of the bill?

- The Bill was aimed mainly to assist law enforcement agencies in tackling crime but provides for DNA testing techniques to be used in other situations as well, like establishing parentage or blood relations between individuals.
- DNA profiling (also called DNA fingerprinting, DNA testing, or DNA typing) is a forensic technique used to identify individuals by characteristics of their DNA.
- The bill proposes to form a National DNA Data Bank and a DNA Profiling Board, and use the data for various specified purposes.
- It will collect data from offenders, suspects, missing persons, unidentified dead bodies and volunteers.
- The proposed DNA Profiling Board will consist of molecular biology, human genetics, population biology, bioethics, social sciences, law and criminal justice experts.
- The Board will define standards and controls for DNA profiling.
- It will also certify labs and handle access of the data by law enforcement agencies.
- There will be similar bodies at state levels.
- The data will be restricted and will be available only to the accused or the suspect.
- A person facing imprisonment or death sentence can send a request for DNA profiling of related evidence to the court that convicted him.

2.4 Admiralty Act, 2017

Why in news?

Admiralty (Jurisdiction and Settlement of Maritime Claims), Bill, 2017 was recently passed by the Rajya Sabha.

What is the aim of the bill?

- Admiralty laws are those laws that deal with cases of accidents in navigable waters or involve contracts related to commerce on such waters.
- The Bill repeals laws such as the Admiralty Court Act, 1861, the Colonial Courts of Admiralty Act, 1890.
- It seeks to consolidate the laws relating to admiralty jurisdiction, legal proceedings in connection with vessels, their arrest, detention, sale and other related matters
- The bill was earlier passed by the Lok Sabha in March, 2017.

What are the features of the bill?

- **Admiralty jurisdiction** - The jurisdiction of maritime claims will vest with respective High Courts and will extend up to the territorial waters of their respective jurisdictions.
- The central government may extend the jurisdiction of these High Courts.
- Currently admiralty jurisdiction applies to the Bombay, Calcutta and Madras High Courts.
- So the further extend this to the High Courts of Karnataka, Gujarat, Orissa, Kerala, Hyderabad, and any other High Court notified by the central government.
- **Maritime claims** - The High Courts may exercise jurisdiction on maritime claims arising out of conditions including –
 1. disputes regarding ownership of a vessel,
 2. disputes between co-owners of a vessel regarding employment or earnings of the vessel etc.
- **Priority of maritime claims** - Among admiralty proceeding, highest priority will be given to maritime claims, followed by mortgages on the vessel, and all other claims.
- **Jurisdiction over a person** - Courts may exercise admiralty jurisdiction against a person with regard to maritime claims.
- However, it will not entertain complaints against a person in the following cases –
 1. damage, or loss of life, or personal injury arising out of collision between vessels that was caused in India, or
 2. non-compliance with the collision regulations of the Merchant Shipping Act, 1958 by a person who does not reside or carry out business in India.
- **Arrest of vessel** - The courts may order for the arrest of any vessel within their jurisdiction for providing security against a maritime claim which is the subject of a proceeding.

2.5 Partial Lifting of AFSPA

Why in news?

The Centre is considering partial removal of the Armed Forces (Special Powers) Act, 1957 (AFSPA) from Assam and Arunachal Pradesh.

What is AFSPA?

- The AFSPA gives powers to the Army and Central forces deployed in “**disturbed areas**” to kill anyone acting in contravention of law.
- It also has the provision of arrest and search any premises without a warrant and provides cover to forces from prosecution and legal suits without the Centre’s sanction.

Where it is being implemented?

- It is effective in the whole of J&K, Nagaland, Assam, Manipur (excluding the seven Assembly constituencies of Imphal).
- In Arunachal Pradesh, it is in force in Tirap, Longding and Changlang districts bordering Assam.
- **Tripura withdrew AFSPA in 2015.**
- It is not in force in Meghalaya (except 20 kilometre area along Assam border) and Mizoram.

What is the recent move?

- The Ministry has asked **Assam and Arunachal Pradesh** for their views on AFSPA withdrawal.
- It was open to reviewing the stringent law in other States like Manipur.
- However, there was no proposal to withdraw it in J&K.
- The ministry also issued a fresh notification stating to continue AFSPA in Arunachal Pradesh for next three months.
- It justified the move by stating that the three border districts of Arunachal Pradesh were being used by militants of the National Democratic Front of Bodoland (NDFB) to escape to Myanmar.

2.6 Extra judicial killings in Manipur

Why in news?

SC has directed a probe by the CBI into the alleged extra-judicial killings by security forces and police in Manipur.

What happened in Manipur?

- The court was hearing a PIL seeking probe and compensation for around 1,500 alleged extra-judicial killings in Manipur from 2000 to 2012.
- The case was made against both the security forces and police.
- AFSPA is in place in Manipur.
- Various reports and evidences have made serious allegations against armed forces personnel for constant rights violations.

What is the need for a CBI probe?

- Courts and commissions earlier have proposed elaborate measures to prevent the abuse of immunity.
- The Army had earlier told the SC that it cannot be subjected to FIRs for carrying out anti-militancy operations in insurgency hit areas.

- The army argues that local factors which are biased come in the way of the probe reports which went against the armed forces.
- This has necessitated an independent probe by CBI.

What impact does the case make?

- AFSPA has kept the counter-insurgency operations in the north-eastern states opaque.
- The apex court's decision has sent a clear message that AFSPA does not allow the security forces to use excessive force.
- The Act must operate with due respect for the rights and freedoms of citizens.

2.7 New Committee on National Educational policy

Why in news?

HRD ministry announced new eight member committee on National education policy recently.

What is the need for a new committee?

- The government is not satisfied with the reports of TSR Subramanian Committee.
- It is looking for a fresh and comprehensive report.
- The new committee will be headed by ISRO chief K Kasturirangan.

What were the recommendations of Subramanian committee?

T.S.R.Subramanian committee formed in the year 2015, submitted the following recommendations –

- Indian Education Service (IES) should be established as an all India service with the cadre controlling authority vesting Resource HRD ministry.
- The outlay on education should be raised to at least 6% of GDP without further loss of time.
- Teacher Entrance Tests (TET) should be made compulsory for recruitment of all teachers.
- Compulsory licensing for teachers in government and private schools should be made mandatory.
- Pre-school education for children in the age group of 4 to 5 years should be declared as a right .
- The no detention policy must be continued for young children until completion of class V when the child will be 11 years old.
- A National Level Test open to every student who has completed class XII from any School Board should be designed.
- The mid-day meal (MDM) program should now be extended to cover students of secondary schools.
- The University Grants Commission (UGC) needs to be made leaner and thinner and given the role of disbursement of scholarships and fellowships.
- Top 200 foreign universities should be allowed to open campuses in India.

Why was the government against it?

- The original report recommended that political parties to be banned from appointing Vice Chancellors for universities.
- It called for a separate bureaucratic framework for HRD functions.
- An autonomous body to handle the selection of teachers for government schools and colleges was also recommended.

2.8 SC Lifts the Stay Order on Admissions**Why in news?**

The Supreme Court lifted its stay on admissions to the Indian Institutes of Technology (IIT) across the country.

Why did the Supreme Court impose a stay?

- Bonus marks were given to compensate for wrong questions in two of the papers.
- They were granted irrespective of whether a candidate had answered these questions or not.
- The exam was conducted this year by the IIT Madras and the decision to give bonus marks were taken by it.
- The court had ordered a freeze (stay) on the admission process after a petition was filed in this regard.

What the petitioner argued?

- The petitioner had argued that a blanket award of 18 bonus marks to all candidates, across the board, was both “arbitrary and wrong.”
- Due to the distribution of bonus marks, nearly 20,000 students, who did not deserve, qualified the cut-off.
- This has adversely affected several meritorious students.

What was the recent move?

- Recently the SC asked the High Courts not to entertain petitions regarding this issue to “avoid any confusion” in future.
- Further the court warned the IIT authorities not to repeat the mistake again.
- Subsequently the court lifted the stay order.

2.9 Supreme Court stays Cattle Ban Rules**Why in news?**

The Supreme Court has extended the Madras High Court’s stay order on the Centre’s notification on cattle slaughter.

What was the centre’s notification?

- The centre notified the Regulation of Livestock Market Rules, 2017.

- The rules mandates that no person shall bring cattle to an animal market without a written declaration signed by the owner of the cattle or a duly authorised agent stating that the cattle has not been brought to the market for sale for slaughter.
- It calls for an Animal Market Committee (AMC) to be set up in each district.
- It also mandates the AMC to ensure that the buyer of cattle does not further sell the animals for slaughter.
- West Bengal and Kerala has opposed the ban and appealed to all other states to object to the covert attempt to violate the powers of the state legislature in the disguise of rules under a Central Act.
- The validity of the rules was challenged in various high courts and the SC.
- The petitioners argued that the new rules were against the fundamental rights of citizens as the right to food and its choice is restricted.
- The rules also interfered in the freedom of trade and business guaranteed under the Constitution.
- The Madurai bench of Madras HC had stayed the rules for 4 weeks.
- The judges clarified that the delegated power to legislate by making rules cannot be exercised to bring into existence substantive rights or obligations or disabilities, which are not contemplated by the provisions of the original act.

What is the present status?

- The Supreme Court also upheld the Madurai bench's order.
- It has directed the centre to keep the rules on hold till new amendments to the act are notified.

2.10 Exempting Liquor Ban

Why in news?

The Supreme Court has exempted Arunachal Pradesh and Andaman and Nicobar Islands from the court's ban on sale of liquor within 500 metres of National and State Highways.

What were the impacts of liquor ban in Arunachal?

- 80% of Arunachal's roads are national highways.
- Arunachal Pradesh had lost 50% of its revenue following the ban which earmarked 500 metres alongside highways as liquor-free zones.

What was the court's rationale?

- The Supreme Court took note of the geographical locations of Arunachal Pradesh and the A&N islands.
- It concluded that they "deserved parity" with Sikkim and Meghalaya.
- Recently, Sikkim and Meghalaya got a full exemption from the 500-m no-liquor zone ban.
- Sikkim and Meghalaya were exempted on the grounds that 82% and 69% of their area respectively were covered by forests.
- Over 90% of their liquor shops would be closed if the ban was imposed as it is.

- The court also relaxed the liquor-free zone along highways from 500 m to 220 m in areas with a population of 20,000 or less.

2.11 Verdict on NEET

Why in news?

The Madras High court quashed the Tamil Nadu Government's Order that provides 85% reservation in State Quota seats for students from State Board schools.

How admission for medical college is being done?

- The National Eligibility cum Entrance Test (NEET-UG) is an entrance exam for any graduate and postgraduate medical course in India.
- Medical colleges in a particular state have 85% seats reserved for the native students and 15% (All India Quote) seats for the students from other states.
- For instance, a student from Delhi wants to pursue MBBS from a college in Mumbai, he would be choosing from from 15% seats of total seats of that college.

What is the Tamil Nadu government's stand?

- Tamil Nadu had abolished entrance tests in 2006.
- Since then has been admitting students based on their marks in the qualifying school examination.
- The State government still opposes NEET exam.
- Two Bills had been passed in the State Assembly exempting students from Tamil Nadu from the exam. The bills were awaiting President's assent.
- In Tamil Nadu, around 88,000 students had appeared for NEET, of which only 4,600 were from the CBSE.
- According to the government, if a NEET-based merit list is drawn up, 72% of medical seats in government colleges and government quota seats in private colleges would go to CBSE school students.
- So the State government notified an order providing 85% reservation in the UG medical seats available in the State quota to the students from State Board syllabus and 15% to students from other boards.
- The NEET might be beyond the potential for students from rural and underprivileged backgrounds.
- There is a concern that the government may not get committed doctors to serve in rural areas if most of the seats are cornered by CBSE students.

What was the court's rationale?

- The Madras High court quashed the Tamil Nadu Government's Order that provides 85% reservation in State Quota seats for students from State Board schools.
- The petitioner submitted that powers to regulate admission to medical courses lie exclusively with the Medical Council of India (MCI) as per the provisions of the Indian Medical Council Act.
- The MCI has stipulated that admissions to medical courses shall be based on the marks obtained in NEET.
- The merit list prepared on the basis of such marks, and it does not distinguish between students from the CBSE and State Boards.

What is the way ahead?

- In a country with regional, economic and linguistic disparities, uniformity is no virtue.
- The political leadership at the Centre as well as in the States would do well to work together to evolve a flexible admission policy
- At the same time fairness, transparency and freedom from exploitation in admissions should be achieved.

2.12 Amendments to Ancient Monuments Act

Why in news?

Central government is planning to introduce amendments to "Ancient Monuments and Archaeological Sites and Remains Act, 1958".

What are prohibited zones?

- Ancient Monuments and Archaeological Sites and Remains Rules of 1959 for the first time noted a prohibited zone around protected sites.
- In 2010, the Ancient Monuments and Archaeological Sites and Remains (Amendment and Validation) Act was passed.
- This legislation brought the prohibited and regulated zones around monuments within the ambit of the Act itself.
- A designated prohibited area means that at least within a 100-m radius of the monument, no new construction is allowed.

What are the existing problems?

- Around 5,00,000 are unprotected and endangered monuments.
- But only 3,650 monuments are nationally protected in a country.
- There are encroachments around monuments by government agencies and individuals.
- e.g The 2013 CAG report noted that of the 1,655 monuments, 546 of them were encroached.
- It is mainly due to the severe lack of basic manpower in the form of monument attendants.
- More than 2/3rd of India's monuments that the Central government is supposed to protect were poorly guarded.
- Politicians have also protected those who have illegally occupied the prohibited zone around monuments.
- Heritage bye-laws for nationally protected monuments are yet to be prepared even after 6 years of passing the law.

What is the new amendment?

- The government is planning to dilute the 100 m prohibited area around nationally protected monuments.
- It aims to allow the Central government to construct within that area all kinds of structures.

What is the importance of prohibited zones?

- The above mentioned problems reveal that, at present, only solid protection to monuments comes from courts of law.
- Courts prevent constructions mainly using the legal provisions of prohibited zones.

2.13 National Energy Policy

What is the issue?

- NitiAayog's latest draft National Energy Policy encourages de-carbonisation, energy efficiency and renewable energy.
- But it is also filled with contradictions and omissions.

What are the major contradictions?

- The policy foresees India's power demand going up four-fold by 2040.
- It also estimates coal-fired power capacity to grow to 330-441 GW by 2040.
- This projected scenario is in **direct conflict with the declared twin goals** of sustainability and security.
- It also comes at a time when solar and wind tariffs appear to be reaching historic new lows.
- This dropping tariffs and the advancements of renewable energy proves that renewables are the logical choice to power India's energy transformation.
- **Coal Export** - NITI Aayog proposes that our coal industry will emerge as an exporter of coal.
- It is against our international commitments to tackling climate change.
- **Tackling Air Pollution** - The draft proposes that the geographic concentration of power plant will be strategically placed to not damage air quality in human habitations.
- This is illogical as the placement of polluting power stations is indifferent to the pollution it will cause to the environment.
- **Public Health** - It briefly touches upon of consideration of public health of semi-urban and rural regions of India.
- It doesn't address problems of city dwellers.
- **Nuclear Energy** - The draft calls nuclear energy as the **only green energy source to be relied upon** for baseload power requirements.
- Age of India's nuclear reactors, high price paid for nuclear energy, safety issues were not covered.

3. HEALTH

3.1 Issues with MPT Act, 1971

Why in news?

A Malformed baby was born to woman whose abortion plea was denied.

Why did the woman approach the Supreme Court?

- The couple found out about the anomaly in the foetus in the 24th week of pregnancy.

- The Medical Termination of Pregnancy Act, 1971, allows abortion **only up to 20 weeks** by medical practitioners for the following conditions –
 1. the continuance of the pregnancy would involve a risk to the life of the pregnant woman or of grave injury of physical or mental health, or
 2. there is a substantial risk that if the child were born, it would suffer from such physical or mental abnormalities as to be seriously handicapped.
- So they approached the Supreme Court.
- The Supreme Court rejected the plea of the woman.
- Now the woman gave birth to a baby boy with the **Arnold Chiari Type II syndrome**.
- It leads to a malformed brain and spinal cord.
- The baby is now battling for life in a neonatal intensive care unit.

What was the court's rationale?

- SC rejected the plea of the woman to abort her pregnancy in the 27th week.
- It stated that the baby could be 'born alive' during the process of abortion.

What the draft MPT bill 2014 provides?

- The draft MTP increased the legal limit for abortion from 20 weeks to 24 weeks.
- It provides for abortion beyond 24 weeks under defined conditions.
- It provides that "the length of pregnancy shall not apply" in a decision to abort a foetus diagnosed with "substantial foetal abnormalities" or if it is "alleged by the pregnant woman to have been caused by rape".
- Under the 1971 Act, even pregnant rape victims cannot abort after 20 weeks, compelling them to move court.
- It allows a woman to take an independent decision in consultation with a registered health-care provider.

Why is it essential to change the MTP law?

- Foetal abnormalities show up only by 18 weeks.
- So just a two-week window after that is too small for the would-be parents to take the difficult call on whether to keep their baby.
- Even for the medical practitioner, this window is too small to exhaust all possible options before advising the patient.
- There is an urgent need to empower women with sexual rights, legal protraction against sex crimes and sex choices both in their own interest and for the sake of reducing the fertility rate as a whole.
- The lack of legal approval moves abortion to underground and they are done in unhygienic conditions by untrained, thus, putting thousands of women at risk.

3.2 Drug-Resistant TB in Children

Why in news?

Foundation for Innovative New Diagnostics (FIND) conducted TB diagnostic tests in collaboration with the Central TB Division under the Revised National TB Control Programme (RNTCP).

What is MDR-TB?

- Multi-drug-resistant tuberculosis (MDR-TB) is a form of tuberculosis (TB) infection caused by bacteria
- It is resistant to treatment with at least two of the most powerful first-line anti-TB medications (drugs), **isoniazid** and **rifampin**.

What are the highlights of the study?

- Of over 76000 children tested in nine cities 5,500 have TB.
- 9% children have Multi-Drug TB.
- 6% are the proportion of children among new TB patients in 2016.
- MDR TB in children is common in settings where it is common in adults.

What were the challenges faced?

- Absence of appropriate samples coupled with decentralised capacity to get good samples from children to test for TB remains a challenge in paediatric TB case detection.
- The paediatric MDR-TB cases had not been documented so far.
- TB diagnosis in children is complicated due to challenges associated with sample collection and poor sensitivity of tests like the Acid fast bacilli (AFB) smear.
- FIND, through this project, has collaborated with the Central TB Division to improve access to more sensitive diagnostic tools like the GeneXpert in the paediatric population.

GeneXpert

- GeneXpert is a diagnostic tool to diagnose TB.
- The test is used with an automated molecular diagnostic platform that enables the diagnosis of TB and some drug-resistant TB (DR-TB) in less than two hours.
- GeneXpert testing was performed free of cost for all presumptive paediatric TB and drug-resistant TB patients (aged under 15 years).

3.3 PPP model in Health Care

What is the issue?

NITI Aayog in a recent report spoke about the public-private partnership (PPP) model in healthcare.

Why does the government need private participation?

- India spends just than 1% of its gross domestic product (GDP) for health sector.

- Countries that have robust public health systems spend much more.
- Canada and the UK spend 8% of their GDP on healthcare.

What are the significances of a privatised system?

- Individualised care is easier in private than in government institutions.
- For high level treatments like surgery where more than one option is available.
- A privatised system can also provide better nursing and allied services.
- It can provide better facilities for attendants and other care-givers.
- Privatisation has helped improve health services

What are the issues with this approach?

- Privatisation may lead to steep hike in health expenditures like medical consultations, drugs and devices, medical tests and hospitalisation.
- There are complaints over many private health care firms that, they prescribe diagnosis and treatments which patients actually don't require.
- Monitoring and regulation costs are too high to ensure quality in this sector and this will be doubly problematic in a country like India.
- There is a lack of administrative reform on Public health capacity of the state.
- The information irregularities among patients, doctors, hospitals and the government are too vast, which will benefit the private healthcare providers and paves the way for lobbying.

What measures can be taken?

- India should raise spending on health to 2.5% of the GDP.
- Instead of implementing private sectors over public health care, government can involve them in few services.
- Patients can be given subsidies for the private treatments, based on facilities which are not available in public institutions.

3.4 Price Control on Cardiac Stents

What is the issue?

- In India, emergency angioplasty was carried out in less than 10% of patients mainly because of the cost involved in the procedure and the lack of access to stents.
- So the National Pharmaceutical Pricing Authority (NPPA) slashed prices of stents by up to 85%.

What is a Stent?

- Stents are tiny metal tubes coated with medication, which are **inserted into clogged arteries** to keep them flowing well.
- It improves the chance of the patient surviving by almost 30% when compared to clot dissolving medication.

What are the problems?

- **Availability** of latest generation stents -Major international stent companies had filed for withdrawing their latest products from the Indian market.
- If this happens, newer and innovative stent technology will never be introduced in India.
- Research on **indigenous stents**- With prices of imported stents and Indian stents now being the same, doctors and patients prefer the imported devices.
- If the situation continues, the financial viability of Indian stent manufacturers could be hit.
- Also, in India, before innovating, manufacturing and marketing a stent, a company has to go through several **regulatory hurdles**.
- This will have a bearing on their capacity to do quality research.
- Ultimately, lack of indigenous research and development will make the country **dependent on imported stents**.
- Medical tourism also will be hit as it will become apparent that Indian hospitals do not have the latest generation stents.

What could be done?

- There must be a system to make sure that the latest medical devices, including stents, are priced differently.
- All aspects involving medical device development must be fast-tracked and should be as **transparent** as possible.

3.5 Regulation of prices in Medical Sector

What is the issue?

- A study by the Maharashtra Food and Drug Authority examined invoices from 12 major hospitals in Mumbai and found that basic medical supplies for heart patients were dangerously overpriced.
- This calls for an intervention from the government.

Why medical supplies are overcharged?

- Charging more for profit in the general areas of the bill where the patient can clearly see what they are being charged for like the services of the hospital might reduce their brand image as affordable.
- Patients are also less aware of the prevailing prices of the equipments.
- Hence hospitals choose this grey area to shift their profit margin.

Is intervention an ideal action?

- In a free market system, government should not generally intervene with it and its prices.
- But health sector is different from other sectors in a market on following grounds.
 1. They depend upon an inability of patients to shop around at a time of medical emergency.

2. Assumptions of perfect competition require common knowledge about underlying prices and the services on offer. But in case of medical services there is always an enormous information asymmetry between the service provider and the patient i.e the provider always knows more.

- Hence some calculated intervention is needed.

What should be done?

- Price caps can be one option. e.g.NPPA's cap on the price of cardiac stents.
- But they do not allow enough flexibility over time.
- A list of suggested charges for standard procedures and equipment should be produced so that patients at least have a sense of the degree to which they are being "overcharged", and can raise it with the hospitals directly.
- This increase in information for consumers can help the market work more efficiently.
- The Competition Commission can inquire into whether these prices being charged to patients are being fixed in collusion between hospitals in a certain geographic area, such as Mumbai.
- Consumer Protection Act, 1986 should be amended to ensure that the definition of a "fee" includes hospitals that are hiding their charges for their services by inflating the cost of supplies.

3.6 Fear of drug resistance

Why in news?

Union health ministry has eased norms on the sale of the antiviral medicines used to treat H1N1 (swine flu) to make them more widely available.

What are schedule X and schedule H1 drugs?

- Drugs under Schedule X require three copies of prescription for the doctor, patient and chemist.
- They are to be sold by a chemist who holds a special Schedule X licence.
- Schedule H1 drug requires only one copy of the prescription and they can be sold by all chemists.

What is the current move?

- Oseltamivir and Zanamivir are antiviral drugs that block the actions of influenza virus types A and B in the body.
- During the H1N1 pandemic in 2009, the health ministry put these antiviral medicines in the Schedule X category of the Drugs and Cosmetics Rules.
- They are now taken off the restrictive Schedule X and placed under Schedule H1.
- This move is made to provide better access to these medicines.

What is the concern?

- India is already concerned of antibiotic resistance and related hazards.
- e.g Multi-drug-resistant tuberculosis (MDR-TB).
- Medical experts now believe that the unrestricted availability of these antiviral drugs could lead to more casual use which eventually leads to severe drug resistance.

H1N1

Influenza A(H1N1) virus is the subtype of influenza A virus that was the most common cause of human influenza in 2009. H1N1 flu is also known as swine flu.

Drugs and Cosmetics Rules, 1945

- It is an Act of the Parliament of India which contains provisions for classification of drugs under given schedules and there are guidelines for the storage, sale, display and prescription of each schedule.
- Drug resistance
- Antimicrobial resistance occurs when microorganisms such as bacteria, viruses, fungi and parasites change in ways that render the medications used to cure the infections they cause ineffective.

3.7 Fear of vaccines

Why in news?

A recent judgment in a vaccine compensation case in Europe has ruled that courts may consider vaccines to be the cause of an illness, even in the absence of scientific evidence confirming a link.

What is the case?

- A French man vaccinated against hepatitis B developed multiple sclerosis and ultimately died.
- The ruling gave way for consideration of circumstantial evidence in judgements.
- This includes prior health of the patient, absence of family history and alleged numbers of other similar cases.

What is the impact of the judgement?

- Vaccines are among the most effective public health interventions saving millions of lives.
- The minor risks caused by side effects of vaccines far outweigh the benefits.
- The judgement has sown seeds of doubt about proven vaccines.
- The resulting **hesitancy over vaccine** use could cause a **rise in vaccine-preventable diseases** and outbreaks of deadly infections.

What should be done?

- Public health interventions must be guided by scientific panels.
- All reported side effects of vaccines need to be evaluated scientifically.
- Most countries have now established effective vaccine pharmacovigilance programmes.
- For example India's adverse events following immunization (AEFI) surveillance programme.
- This surveillance programme has helped India to win similar legal battles against pentavalent vaccine use.
- The need of the hour is to ensure effective surveillance, compensation for those affected and to promote public confidence in vaccines.

Multiple sclerosis

It is an autoimmune disorder in which the body's immune system attacks its own tissues.

Hepatitis B

It is a potentially life-threatening liver infection caused by the hepatitis B virus (HBV).

4. SOCIAL JUSTICE**4.1 Empowering Transgenders****What is the issue?**

Kochi metro recently hired transgenders to their workforce as a measure to empower them.

What are the recent steps taken?

- **Judiciary** - Supreme Court recognised transgender people as a third gender in 2014.
- It mandated the government to take steps for the welfare of transgender persons in the NALSA vs. Union of India case
- Bihar state government introduced third gender category in school exams to give effect to the SC judgment.
- **Legislative** - The Transgender Persons (Protection of Rights) Bill, 2016 has been introduced in the parliament.
- It attempts to bring the community into the mainstream.

What are the highlights of the bill?

- The bill creates a statutory obligation on public and private sectors to provide them with employment and recognises their right to "self-perceived gender identity".
- A transgender person must obtain a certificate of identity as proof of recognition of identity as a transgender person and to invoke rights under the Bill.
- It also provides for a grievance redressal mechanism in establishments.
- It has provisions to establish a National Council for Transgenders.
- It makes the government responsible for preparing welfare schemes and programmes which are "transgender sensitive, non-stigmatising and non-discriminatory".
- It holds that it is a crime to push transgender persons into begging or bonded or forced labour.
- The Bill recognises the rights of transgender persons to live with their families without exclusion and use the facilities of those households in a non-discriminatory manner.

What are the defects of the bill?

- The Bill does not address the issue of Section 377 of the Indian Penal Code.
- The definition of a 'transgender person' is left vague.

- The provision to obtain a certificate from District Screening Committee for the identity as transgender persons goes against the principle of to 'self-perceived' gender identity.
- It does not separately clarify any of the terms used in defining the transgenders, like for example, "trans-men" and "trans-women".

4.2 Addressing Manual Scavenging

Why in news?

The Madras High Court has directed the Central and the State governments to ensure the implementation of the Prohibition of Employment as Manual Scavengers and their Rehabilitation Act, 2013.

What was the case?

- A petition was submitted claiming that around 30 persons engaged for manual scavenging in Tamil Nadu lost their lives.
- The petitioner wanted the court to pass directions to the Union and the State government to identify families involved in manual scavenging and rehabilitate them.
- Following this, the court noted that manual scavenging is a contravention of human rights and the right to live with dignity enshrined by the Constitution.
- It also directed the Central and the State governments to ensure the implementation of the Prohibition of Employment as Manual Scavengers and their Rehabilitation Act, 2013.

What are the challenges in implementing?

- Continuous presence of insanitary latrines.
- Absence of a full census of both the latrines and the people engaged in clearing such waste.
- Reduction of funds for the self-employment scheme by Centre, discouraging people to move away from scavenging.
- Prevalence of social prejudice like regarding the inclusion of a sanitary toilet as physical pollution of the house and entrenched belief in the caste system

What should be done?

- The judiciary should fix responsibility on State governments.
- It should order an accurate survey of the practice especially in those States that claim to have no insanitary latrines or manual scavenging.
- Raising the confidence level among those engaged in manual cleaning is vital.
- Empowerment and breaking caste barriers through education and economic uplift is the key.
- Compensation sanctioned for the families of those who died should be paid immediately.

What are the highlights of the Manual Scavenging Act, 2013?

- The Bill prohibits the employment of manual scavengers, the manual cleaning of sewers and septic tanks without protective equipment, and the construction of insanitary latrines.
- It seeks to rehabilitate manual scavengers and provide for their alternative employment.

- Each local authority, cantonment board and railway authority is responsible for surveying insanitary latrines within its jurisdiction.
- They shall also construct a number of sanitary community latrines.
- Each occupier of insanitary latrines shall be responsible for converting or demolishing the latrine at his own cost.
- If he fails to do so, the local authority shall convert the latrine and recover the cost from him.
- The District Magistrate and the local authority shall be the implementing authorities.
- Offences under the Bill shall be cognizable and non-bailable.

4.3 Widening the Coverage of SC scholarship

What is the issue?

- Under the 'Top Class Education Scheme', the Centre provides scholarships to SC students who are pursuing higher education in 175 notified top institutes.
- Centre is proposing to raise the income eligibility criteria to widen the SC scholarship for higher education.
- According to the current eligibility criteria, their parents' annual income shouldn't exceed Rs 4.5 lakh. This is now proposed to be revised to Rs 6 lakh per annum.
- For pre-matric scholarships also the number is proposed to be revised from Rs 2 lakh to Rs 2.5 lakh, on par with post-matric scholarships.

What is the rationale behind the proposal?

- The schemes were started at different times, and various income limits were specified each time.
- The changes are a part of the plans for 'rationalisation of all scholarship schemes', to correct the wide variation in income criteria.
- It aims at bringing in parity among various categories of students.
- It also aims to ensure that students of reputed institutions within India should get similar benefits on par with students of National Overseas Scholarship scheme.

What are the financial implications of this?

- An enhanced budget would be required as the number of students who will become eligible would be very large.
- This adds to the burden of already existing huge pending dues in the scholarship scheme.
- While Centre expects states to pool in funds, the states complain that they do not have the resources.
- The resultant lower budgetary allocation for the scheme in recent years and proposal to widen the coverage stands conflicted.

Quick Facts

- Ministry of Social Justice and Empowerment (MoSJE) administers educational scholarships for SC, OBC, and economically backward students.

- The schemes provide 100 per cent centrally-sponsored financial assistance for Dalit students for promoting educational and economic interests of SCs and STs.
- The pre-matric scholarship is aimed at minimising the incidence of Dalit students dropping out in Class IX-X.
- The post-matric assistance is meant to enable such students to complete their higher education.

4.4 Maharashtra Social Boycott Bill

Why in news?

President has given his assent to the Maharashtra social boycott bill.

What is social boycott?

- A social boycott is an act of voluntary and intentional abstention from dealing with a person, organization, as an expression of protest, usually for social, political reasons.
- In India, it is frequent that particular Individual or group of Individual are boycotted by other set of majority in the name of caste, religion, rituals, and traditions.
- It was categorically stated that social boycott for reasons such as religious rituals, inter-caste marriage, lifestyle, dress or vocation are happening.

What are the highlights of the bill?

- Maharashtra is the first state in the country to formulate a law to punish social boycott.
- The objective of the bill is to uproot social evils in the name of caste panchayats.
- Punishment for an offence includes a fine of up to Rs 5 lakh and imprisonment of up to seven years or both.
- Social boycott will be treated as a crime.
- There is a provision for victims or any member of the victim's family to file a complaint either with the police or directly to the magistrate.
- Earlier social boycott was not clearly defined in existing laws, which often saw perpetrators using loopholes to escape punishment.
- A monitoring mechanism has been provided through social boycott prohibition officers.
- Speedy trial within six months of filing of the charge sheet.

4.5 Reforming the Protection of children act

What is the issue?

SC declined to apply the provisions of POSCO to mentally retarded adults whose mental age may be that of a child.

What is POSCO?

- The Parliament of India passed the 'Protection of Children against Sexual Offences Bill, 2011' regarding child sexual abuse.
- It defines a child as a person under age of 18 years.
- It encompasses the biological age of the child and silent on the mental age considerations.

- With respect to pornography, the Act criminalizes even watching or collection of pornographic content involving children.
- It mandates child-friendly procedures and features during the trial, taking into account her daughter's mental age, which she said was that of a six-year-old.

What is the case?

- The case before the court is related to the rape of a 38-year-old woman with cerebral palsy.
- Her mother was concerned about the absence of a friendly and congenial atmosphere before the trial court.
- She approached the courts for a direction to transfer the case to a special court under POCSO.

What was the court's rationale?

- It has ruled that it is outside its domain.
- It noted that there may be different levels of mental competence, and that those with mild, moderate or borderline retardation are capable of living in normal social conditions.
- To extend it to adult victims based on mental age would require determination of their mental competence.
- This would need statutory provisions and rules, which is to be done by the legislature.

What are the other shortcomings of the act?

- Section 29 of this law says that "the special court shall presume that the person prosecuted under sections of penetrative sexual assault has committed or attempted to commit the offence unless the contrary is proved".
- However, experience reveals that the prosecution is still asked to prove the case "beyond reasonable doubt".
- The law permits the medical examination of minor victims only with guardians' consent.
- If such consent is not granted, more emphasis needs to be laid on oral evidence.

4.6 Drawbacks in Domestic Violence Verdict

What is the issue?

- SC recently gave its verdict on section 498A of the Indian Penal Code (IPC) which deals with domestic violence.
- The verdict has created resentment among women's rights activists.

What are the concerns with the legislation?

- There were opinions that complaints under section 498A were being filed on the basis of personal vendetta.
- But the conviction rate of cases registered under Section 498A IPC was also a staggering low at 15.6%.

What are the directives in the court's verdict?

- It directed police and magistrates that there would be no automatic arrests or coercive actions arising out of complaints lodged.
- Instead actions should follow only after ascertaining the validity of the complaints.

- The verification of the complaints shall be carried out by a special police officer and a district-level Family Welfare Committee.
- The court, however, has assured that grave physical injury or death of the aggrieved person would be exceptions to this directive on verification.

What are the drawbacks?

- The scope of the **word 'cruelty'** underlined by the bench has no quantitative indicators to be validated by an external Family Welfare Committee.
- It leaves the responsibility to test the truthfulness of the complaints on arbitrary personalities in the **Family Welfare Committee** who are likely to be influenced by patriarchal mindsets.
- By creating the Family Welfare Committee, the court creates one more layer between the victim and the justice system, and as a result, her **access to justice is compromised**.
- Moreover, the creation of an intermediate body suggests that the judiciary does not trust the very beneficiaries of this legal provision.
- Exceptions to the directive such as grave physical violence or death, implies that mental torture, **emotional or sexual violence are disregarded**.
- The court has made an observation that filing complaints would affect the later reunion of the couple as also the reputation of the husband and the family.
- This sends a wrong message that would encourage women to shy away from lodging complaints to protect the honour of the family.
- It **expects woman to internalise and normalise violence** in private spaces for matrimonial relationships, which strongly goes against the idea of gender equality.
- The naming as 'Family' Welfare Committee places family above individual woman's rights, dignity or agency that the provision is meant for.

4.7 Challenges to implementing Pradhan Mantri Awas Yojana (PMAY)

What is the issue?

The government's housing scheme is far from reaching its goal due to many impeding factors.

PMAY

- It is a central government's flagship scheme to provide housing for rural poor in India.
- A similar scheme for urban poor recently launched is the "Housing For All by 2022"
- PMAY plans to provide homes to 18 million households in urban India and nearly 30 million households in rural India.
- It also provides interest subsidy on a home loan and direct subsidy for individual house construction or enhancement.

What are the roadblocks?

- The technical Group's report highlighted the problem of **housing shortage** (lack in number of houses to accommodate the population of an area).

- There is widespread **scarcity of land** in building new housing units.
- People in ancestral homes and slum dwellers are unlikely to have proper title documents which are required for availing the subsidy.
- Moreover land records are governed by the State's revenue department, while housing is a separate agency.
- The existence of **distorted rental market** is another cause of concern.
- Reports showed that there were over 10 million vacant houses which are un/ under-utilised.
- Owners of these vacant houses prefer to leave their house vacant, rather than offer it on rent in the fear of losing their property to tenants.

What should be done?

- States need to simplify the process of **updating property records** making it easier for citizens to obtain legal documents to their land and property.
- **Credits** should be provided to people **to upgrade** their congested houses to tackle the problem of land scarcity.
- Transfer of Development Rights (TDR) should be done to incentivise developers to **in-situ rehabilitate slums**.
- Providing **security of tenure** even a "no eviction guarantee" to individual households who don't have legal titles thereby encouraging them to invest money and upgrade their shelter.
- States need to push through **rental reforms** that balance the interests of tenants with the protection of property owners' rights.

4.8 Voluntary National Review report of SDGs

Why in news?

- Government has come out with the Voluntary National Review (VNR) report on progress in achievement of SDGs to be presented at the ongoing UN High-Level Political Forum (HLPF).
- India's report is prepared by the NITI Aayog.

Does the report reflect the ground reality?

- This report provides an assessment of progress on issues like poverty, hunger, health and gender inequality.
- But the claims made in the report are in contrast to the ground reality in many factors.
- On **poverty** the report claims a sharp reduction in the last two decades attributing it to economic growth after liberalisation.
- However an independent civil society organisation report highlights increase in inequality and poverty over the same period.
- The report claims that MGNREGA has created **employment** opportunities and significantly reduced poverty.
- Ground reality however reflects that budgetary allocation has come down and resulted in a huge sum of pending payments.
- National Food Security Act was introduced with an aim to reduce **hunger and malnutrition**.

- The measure of mandatory linkage of ration cards with Aadhaar to ensure transparency has actually excluded the most-needy in interior tribal areas.
- The claims on National Mission on Sustainable **Agriculture** falls short with the reality of farmers committing suicide.
- Provision of soil health cards and crop insurance has failed to benefit small and marginal farmers.
- Dispensing with the procurement system to replace PDS by cash transfer is said to affect small scale farmers.
- India has for sure made progress in basic **health** indicators like Infant Mortality Rate (IMR), Maternal Mortality Rate (MMR), institutional deliveries and vaccination coverage.
- However out of pocket expenditure for health is a still a huge burden on poor and the middle class.

5. GOVERNANCE

5.1 Need for directly elected mayors

Why in news?

Maharashtra cabinet has recently approved a proposal for direct election of the village *sarpanch*, the head of the gram panchayat, who was earlier elected indirectly by elected representatives.

Why direct elections are proposed?

- The 73rd and 74th amendments created Panchayatat Village levels and Municipalities and Municipal Corporations in towns and large cities.
- The amendments aimed for division of powers and functions.
- It called for a 3 tier system.
- All the members of these three level are elected.
- Further, the chairperson of panchayats at the intermediate and district levels are indirectly elected from amongst the elected members.
- However the resources and the powers continue to be vested with the state governments, which are reluctant to delegate them to LSGs.
- So the proposals are made for direct elections of LSG authorities to bring into materialize the vision of the institution.

What are the problems with the office of mayor?

- Head of the municipal corporation, the mayor, functions merely as a ceremonial authority.
- Executive decisions are largely carried out by the municipal commissioner appointed by the state government.
- Short tenure of mayors in many states which is hardly enough to create lasting changes in a large metropolis.
- Sometimes, directly elected mayors run into corporations dominated by members of rival political parties creating difficulty in day to day governance.

What should be done?

- A private member bill suggested a provision for a mayor-in-council that would be nominated by the directly elected mayor.
- Such a council, with an executive role, has existed in Kolkata and has performed reasonably well.
- Direct elections for Mayor will go a long way in accomplishing the goals of democratic decentralisation.

5.2 Lateral Entry in Civil Services

Why in news?

Department of Personnel & Training (DoPT) has been asked to prepare a proposition on lateral entries into civil services that deal with economy and infrastructure.

Was the idea mooted before?

- The first Administrative Reforms Commission (ARC) had pointed out the need for specialization as far back as in 1965.
- The **SurinderNath Committee** and the **Hota Committee** followed suit in 2003 and 2004, respectively.
- In 2005, the second ARC recommended an institutionalized, transparent process for lateral entry at both the Central and state levels.
- But pushback from bureaucrats, serving and retired, and the sheer institutional inertia of civil services that have existed largely unchanged for decades have prevented progress.

What is the need for lateral entry?

- The newly independent India had pressing concerns about the need for socioeconomic development, the demands of Central planning and the imperative of holding together a new nation.
- Thus, at that time, the civil services were seen as a tool for achieving these objectives.
- Now those **dynamics have changed**.
- A judicious combination of domain knowledge and relevant expertise is a critical requirement in governance.
- It is felt by many that these attributes are often not present in a cadre of generalists.
- The second ARC also envisaged a **shift from a career-based approach to a position-based approach** for the top tier of government jobs.
- Also, given the sheer enormity of most government projects, **good managerial talent** is critical.
- ARC felt that civil servants ought to compete with domain experts from outside the regular civil service for senior positions.

What might be the negatives?

- Large-scale lateral induction would amount to a **vote of no-confidence in the government personnel management system**.
- It is also not clear how lateral entrants would be more performance-oriented.
- Lateral entry at senior decision-making levels will increase the disconnect between policymaking and implementation.
- Best talent can be attracted only if there is reasonable assurance of reaching top level managerial positions.

- **Itopen the gates for a spoils system**, drive talented people away from a civil service career.

5.3 Merger of ONGC & HPCL - Corporate Governance

What is the issue?

- The Union Cabinet recently gave go ahead to the purchase of Hindustan Petroleum Corporation Limited by the Oil and Natural Gas Corporation
- The question of corporate governance has arisen with the Centre being the controlling shareholder in the two companies.

What are the drawbacks?

- ONGC does not gain much since the transaction is being structured as an **acquisition**.
- The best way for ONGC to structure the transaction would have been in the form of a **merger** using its own shares as currency.
- A merger could have been used to extract improvements in profitability from cost savings, better operational efficiency and combine both businesses with the full benefits of integration available to claim.
- It helped only the government to help it meet its divestment target.
- ONGC will likely **spend** around ₹ 20,000 crore to acquire a little over half of HPCL's equity.
- This money that could've been better spent in its core business of exploration and production.

What should be done?

- Any mergers or combinations among PSUs should be based on commercial considerations alone.
- It should also be structured in the best **interests** of not just the two companies but all of its **shareholders**, including the public.
- The government plays various roles like being the owner, policy-maker and a law-maker, which should be limited.

6. INDIA AND ITS NEIGHBOURHOOD

6.1 Sri Lanka Fisheries Act

Why in news?

- Sri Lanka recently passed amendments to Fisheries and Aquatic Resources Act.
- It banned the fishing practice of bottom-trawling in their waters

What is Bottom-trawling?

- It is a fishing practice, which involves trawlers dragging weighted nets along the sea floor.
- It is known to cause great depletion of fishery resources.

Why it is a source of conflict?

- Ever since Sri Lanka's civil war ended in 2009, fishermen of Sri Lanka's Tamil-majority north have been trying to start fishing.

- For decades, they had been denied access to the sea by the armed forces and the LTTE.
- They began rebuilding their lives with very limited resources and huge loans.
- They are confronting the challenge of bottom-trawlers, originating from Tamil Nadu and trespassing into their waters.
- Sri Lankan fishermen want an immediate end to incursions by Indian trawlers, and those from Tamil Nadu insist on a three-year phase-out period.

What measures taken by Sri Lanka?

- Sri Lanka recently banned the destructive fishing practice of bottom-trawling in their waters, making violators liable for a fine of LKR 50,000 (approximately Rs. 20,000) and face two years imprisonment.
- It was made by amending the country's Fisheries and Aquatic Resources Act.
- The amendment is aimed at curbing local trawlers as well as deterring trawlers from Tamil Nadu.

What are the impacts?

- The development could directly impact a section of fishermen from Tamil Nadu, who engage in bottom-trawling.
- They have often been found trespassing into Sri Lanka's territorial waters.
- It also sparked resistance from a small section of northern Sri Lankan fisher folk who had also begun using trawlers to maximise profits.
- If this practice continues to gain ground even among local fishermen, the long-term consequences on fishing resources in the contested Palk Bay region will be irremediable.

What the Indian government proposes?

- The Central and State governments plan to provide 500 deep sea fishing boats with long lines and gill nets this year, as part of a plan to replace 2,000 trawlers in three years.
- A Joint Working Group set up by both countries last year is in place.

What is the way ahead?

- Ultimately, the solution lies in the transition from trawling to deep sea fishing.
- Ultimately, the solution lies in the transition from trawling to deep sea fishing.
- An appropriate response from Tamil Nadu would be to expedite the conversion of its trawlers to deep sea fishing vessels, and not merely condemn Sri Lanka.
- Besides the fisheries conflict, they need to discuss marine conservation, thus giving equal importance to protecting livelihoods and sustainable fishing.

6.2 Geopolitics in Sri Lanka

What is the issue?

The first phase of the MagumpuraMahindaRajapakse Port at Hambantota was inaugurated recently.



How much did China influence?

- The government finalised an agreement to sell an 80% stake in the port's operations for \$ 1.1 billion to China Merchant Ports Holding Company Ltd, which also has the contract for the Colombo Port.
- Sri Lanka took this step to service the debt on the loan it took from Exim Bank China to build the port.

Is it a successful venture?

- The Hambantota Port adds to the nation's huge foreign debt.
- A large portion of it owed to China as repayment of loans for infrastructure projects.
- For the \$ 1.5 billion Hambantota Port, 85% of the finances came as loan from China's Exim Bank, at an interest of 6.5%.
- The rest came from the Sri Lankan government, which was borrowing heavily from other sources.
- By 2016-end the commercial operations' cumulative losses were estimated at over SL Rs 450 billion (\$ 3 billion).
- Rajapakse international airport is a second giant lossmaking project.
- It was built by the Chinese, with the Exim Bank of China lending \$ 190 million.

How is India's interest treated?

- When the new government took office in Sri Lanka, it was expected that it would correct the China tilt in Sri Lanka's foreign policy, and put relations with India on a firmer footing.
- There is some disappointment in the Indian establishment that Sri Lanka did not altogether cancel all the Chinese infrastructure projects, including the controversial offshore Colombo Port city deal.
- Sri Lanka believes it stands to benefit from One Belt One Road and China's investments.
- To normalise its relations with India, Sri Lanka signed a MoU on the development of Trincomalee harbour.

6.3 Joint Interpretative Notes

Why in news?

The Cabinet gave its approval for the Joint Interpretative Notes (JIN) on the Agreement between India and Bangladesh.

What is JIN?

- The JIN includes interpretative notes to be jointly adopted for many clauses.
- It includes the definition of investor, definition of investment, exclusion of taxation measures, Fair and Equitable Treatment, National Treatment and Most Favoured Nation treatment.
- It also includes the interpretations of expropriation, essential security interests and Settlement of Disputes between an Investor-and a Contracting Party.

What are the impacts?

- The JIN would impart clarity to the interpretation of the existing Bilateral Trade and Promotion Agreement (BIPA).
- It will ensure to ensure smooth implementation of the investment promotion and protection pact.
- Joint Interpretative Statements play an important supplementary role in strengthening the investment treaty regime.
- With increasing Bilateral Investment Treaty (BIT) disputes, issuance of such statements was likely to have strong persuasive value before tribunals.
- Such pro-active approach can foster a more predictable and coherent reading of treaty terms by arbitration tribunals.

6.4 Sino-Pakistan Collaboration on the Indus**What is the issue?**

- Memoranda of Understanding (MoU) is finalised between China and Pakistan to construct an array of hydropower projects, to be referred to as the North Indus Cascade.
- This has raised concerns with India.

How is it a concern for India?

- The string of projects include -Bunji dam, DiamerBhasha dam (4500 MW), Dasu dam, Patan dam and Thakot dam.
- DiamerBhasha Dam (DBD), a part of the Cascade will cut across GilgitBaltistan, a part of Pakistan occupied Kashmir (PoK) in India.
- Now, China is stepping up its effort to include DBD as part of the CPEC(China Pakistan Economic Corridor) which also passes through PoK.
- Both projects have geopolitical underpinnings, given the India angle.
- Similar to the Kashmir problem where China is increasingly seen as the third party because of its stakes in PoK, the North Indus Cascade is likely to make China the third actor in the Indus framework as well.

What should India do?

- India is yet to fully harness its permissible share for storing water under IWT in the western rivers (Jhelum, Chenab and Indus) allotted for its use.
- Whereas India's limited number of projects have been blocked by Pakistan's repeated challenges, India has so far not sought either the opinion of neutral experts or international arbitration on DBD or Bunji projects.

- High profile projects such as CPEC and North Indus Cascade will enable China to exploit resources under Pakistan's control and take up projects overseas in times of lowering domestic demand.
- China's approach towards transnational rivers has no regard for ecological concerns. Ex: DBD and Bunjidadams projects are located in ecologically fragile seismic belt.
- India must look at options that can diminish the challenges arising from what appears to be an emerging Sino-Pakistan axis on the Indus waters.
- India must firmly assert its sovereignty claims in PoK.

7. INTERNATIONAL RELATIONS

7.1 Malabar 2017

Why in news?

Malabar 2017, which began on July 10, is being held in the Bay of Bengal.

What is Malabar?

- Malabar is an **annual military exercise** between the navies of India, Japan and the U.S. held alternately in the Indian and Pacific Oceans.
- It is a platform to **improve interoperability between the navies.**
- It began in 1992 as a bilateral exercise between India and the U.S.
- Then it got permanently expanded into a trilateral format with the inclusion of Japan in 2015.
- The 10-day games will have two phases, an initial harbour phase in Chennai and a sea phase later which will be held across the Bay of Bengal and the northern Indian Ocean.
- In a first this year, all three countries fielded carriers (India - INS Vikramaditya) for the exercises.
- This year is also witnessing the largest participation to date with 16 ships, 2 submarines and over 95 aircraft taking part from the three countries.

Why it is important?

- These naval interactions have provided the Indian Navy **invaluable insights** into the tactics, doctrines, warfare techniques and best practices of the US Navy.
- In the realm of maritime warfare, the three navies could **derive mutual benefit** from their diverse operational expertise.
- With China's growing military strength and its increasing presence in the Indian Ocean, the Malabar has assumed greater importance.
- Given China's intent in acquiring bases in the Indian Ocean, and frequent transit of PLA naval units through our waters, cooperation in maritime domain awareness deserve top priority.
- Equally, amphibious operations, trade-warfare, maritime interception operations, anti-access concepts and, of course, disaster relief, must receive due importance.
- There is special focus on **anti-submarine warfare operations** in the backdrop of increasing submarine forays by the Chinese Navy.

Why is China concerned?

- China always viewed Malabar with paranoid suspicion that India is colluding with the US in an attempt at “**containment**”.
- Its fears have been aggravated with Japan being included and Australia keen to join as well.
- China had issued a statement to New Delhi **questioning the intent behind the war games**, which forced India to abandon the expansion.
- Australia has been keen to join the games on a permanent basis, which has so far not fructified due to India’s reluctance.

What could be done?

- For 25 years, Indo-US naval cooperation has formed the sheet-anchor of bilateral relations, ignoring all the political and diplomatic tensions.
- With the invaluable accession of Japan to this partnership, the India-Japan-US triad must be **elevated to strategic status**.
- A “**maritime-infrastructure and economic initiative**” must be created that reaches out to smaller Indian Ocean nations in an initiative to sway them away from the Chinese.

7.2 India and US – Maritime Cooperation

Why in news?

The joint statement by US and India acknowledged the need for both countries to play meaningful and legitimate roles in the ‘**Indo-Pacific**’ and to ensure freedom of movement at sea consistent with international norms.

What does it mean for India?

- The term “Indo-Pacific” was first coined by then Secretary of State Hillary Clinton in 2008.
- The Americans soon shied away from it and put out the more convoluted terminology of “Indo-Asia-Pacific”.
- By using the old term again, it seems that the US recognises India’s legitimate role in waters stretching from the **Suez Canal to the waters of the western Pacific**.
- India is an Indian Ocean Region (IOR) player, but given its size, interests and growing maritime trade, its concerns extend beyond it.
- So, even though India is not a South China Sea littoral state, it cannot remain excluded from developments that are taking place there.
- Its inclusion as party to the Indo-Pacific provides exactly that recognition. And, this is fully consistent with our long-term interests.

How should cooperation be at sea?

- Cooperation at sea involves not just ships carrying out exercises over a couple of days, but understanding the whys and the wherefores.
- This can come about only if there is some degree of synergy of doctrines, and for this to happen **information sharing is important**. So, some compromise seems necessary.
- In the IOR, **India has to become a net security provider** and that will often require joint operations with the US.

- Also, **the Malabar series** is clearly an Indo-Pacific event and lends credibility to India's aspirations and potential.
- Meanwhile, these elements must be added the American clearance for the supply of nearly two dozen **Guardian drones** for the Indian Navy.
- The Indian Navy also has an enquiry ongoing for nearly **five dozen fighter aircraft** to operate from aircraft carriers at sea.
- Procurement of major military hardware must always be seen through the prism of geopolitical interests more than just financial cost.
- The dialogue just concluded gives India an opportunity to make the required course correction.

7.3 India-Israel Trade Ties

Why in news?

Prime Minister's Israel visit will set the stage for partnerships in defence and agriculture.

What are the highlights of Israel technology?

- Israel has become the centre for R&D in the area of autonomous car technology.
- It has a long line of dynamic innovation ecosystem outside America.
- Israel tackled its rain deficiency by developing technology solutions for water reuse in agriculture and industry.
- Israel's low inflation and rising labour force participation has a lot to offer businesses.

What is the status of India-Israel trade relationship?

- India has bilateral ties with Israel in areas of security, defence and agriculture.
- The bilateral trade currently reached \$4.5 billion from \$200 million in 1992.
- The presence of Israeli companies in India has grown to 300.
- India exports precious stones, metals, chemical products, textile, rubber & plastic products, and base machinery to Israel.

What are the areas of trade to be concentrated?

- Israeli defence industries are well inclined towards joint ventures to give a boost to the 'Make in India' campaign.
- India-Israeli deal to jointly develop a medium range surface-to-air missile system is a good business model to work on.
- A joint research and development fund can work wonders.
- Indian-Israeli companies with their innovation can together stimulate domestic manufacturing and agriculture sector.
- The Israeli dairy genetic material can revolutionise the dairy industry in India.

7.4 Progress in Indo-US Nuclear Deal

Why in news?

The Indo-US Nuclear deal is on progress.

What is the Indo-US Nuclear deal?

- Under the agreement, India agreed to separate its civilian and military nuclear activities.
- It also agreed to open up the civilian part to inspection by the International Atomic Energy Agency (IAEA).
- In return, the US offered to resume full nuclear trade i.e. Selling of reactors, Transfer of Technology, Uranium sale with India.
- This deal had went through several complex stages, including amendment of U.S. domestic law (Atomic Energy Act of 1954), a civil-military nuclear Separation Plan in India and an India-IAEA safeguards agreement.
- 22 nuclear facilities in India have been placed under IAEA safeguards so far.

Why U.S agreed for the deal?

- The US wants to bring India closer to the Non Proliferation regime by placing most of its nuclear capabilities under IAEA safeguards.
- U.S. also expects that such a deal could spur India's economic growth and bring in \$150 billion in the next decade for nuclear power plants, of which the U.S. wants a share.
- India is one of the largest buyers of Uranium and everyone wants a share of this market.
- The U.S. may also benefit from Indian technology, especially the Thorium based research.

What is the progress in the deal?

- It has resulted in enabling import of fuel for reactors placed under International Atomic Energy Agency (IAEA)
- This paved the way for setting up of large capacity Light Water Reactors (LWRs) with foreign technical cooperation.
- India has approved five coastal sites and designated them for locating such reactors in cooperation with the Russian Federation, France & the USA.
- There are nine reactors under construction and another twelve have been accorded administrative approval and financial sanction by the government.

7.5 Resolving Bilateral Irritants with Iran

Why in news?

Recently, Iran's supreme leader Ayatollah Khamenei equated the on-going Kashmir conflict with that of Yemen conflict and said that the Muslim world must express their disdain against 'oppressors'.

Why Iran issued such a statement?

- It reflects Iran's concerns about getting regionally isolated at a time of Donald Trump administration'
- It had emboldened Saudi Arabia and its allies to **squeeze Iran out of the regional matrix.**

- Ex. Saudi Arabia has recently warned Qatar that more punitive measures would follow if Qatar embraces Iran any further.
- The statement might be a signal to India that its growing closeness to Saudi Arabia and the UAE, is being watched closely in Tehran.

What should be the major concern?

- The recent decline in economic ties should be of greater concern to the two countries.
- Iran seems to be in no hurry to decide on awarding the contract for gas exploration in its **Farzad B offshore field** to ONGC Videsh.
- Pending a decision on the contract, India has decided to decrease the volume of Iranian crude oil it will be buying this year.
- Further, the **slow pace of the Chabahar port project** has vexed the Iranians.
- They have even indicated that despite India developing the project, it won't be exclusive to the country.
- For India, this **undercuts the very strategic utility of the port** – viewed as India's answer to the Gwadar port (developed by China) that will allow it to circumvent Pakistan and open up a route to landlocked Afghanistan.

8. INTERNATIONAL ISSUES

8.1 Chinese maritime expansionism

Why in news?

Beijing has sent two Chinese Navy warships with Chinese military personnel to Djibouti, its first military base overseas.

What could China's motives be?

- Djibouti has marked the formal return of Chinese maritime expansionism after centuries.
- It opens the door for more military bases in the region.
- Economic and strategic importance of the new facility at the mouth of the Red Sea gives wider access in the region.
- However China claims that the aim is to support Chinese warships on anti-piracy and humanitarian missions and not for military expansion.



What concerns has this raised among nations?

- China is now being portrayed as exhibiting influence both in land and sea.
- It gives the benefit of watch over other US bases in the region e.g Camp Lemonnier is the only permanent US base in Africa since 2002.
- It suggests a fundamental shift in Beijing's stated policy of no "forward deployment".
- It also raises the possibility of "forward deployment" at India's doorstep. Pakistan's Gwadar port is only a few miles away from Djibouti.
- Other port development projects in the region by China, like those in Sri Lanka, Bangladesh and Pakistan, also raise the fear of being converted into military bases.

What is expected of India?

- China has stepped up activity in the Indian Ocean, which is a cause of concern for India.
- The appropriate Indian response would be to build stronger naval capabilities and alliances.
- Encouraging investments to develop India's maritime infrastructure.

8.2 Capture of Mosul from Islamic State

Why in news?

The capture of the Grand al-Nuri Mosque in Mosul by Iraqi forces, from where Islamic State (IS) proclaimed the caliphate nearly three years ago, marks the end of the 'caliphate' in Iraq.

What is their ideology?

- ISIS is a theocracy, proto-state and a Salafi or Wahhabi group.
- It follows an **extremist interpretation of Islam**, promotes religious violence, and regards Muslims who do not agree with its interpretations as infidels or apostates.

- It represents the **restoration of the caliphate of early Islam**, with all the political, religious and eschatological ramifications that this would imply.
- A caliphate is an area containing an Islamic Leader known as a 'Caliph' a person considered a religious successor to the Islamic prophet, Muhammad, and a leader of the entire Muslim community.
- When the caliphate was proclaimed, all who do not believe in the group's interpretation of the Quran will be killed.

What is their source of revenue?

- Proceeds from the occupation of territory - including control of banks, oil and gas reservoirs, taxation, extortion, and robbery.
- Kidnapping for ransom.
- Donations from Saudi Arabia and Gulf states, often disguised as meant for humanitarian charity.
- Material support provided by foreign fighters.
- Fundraising through modern communication networks.

Why were they successful?

- In spite of their medieval ideology, **they run a modern and an effective administration.**
- ISIL is headed and run by **Abu Bakr al-Baghdadi**. Advising him is a **cabinet of senior leaders**, while its operations in Iraq and Syria are controlled by **local governors**.
- Beneath the leaders are councils on finance, leadership, military matters, legal matters – including decisions on executions.
- From the cabinet and the governors to the financial and legislative bodies, ISIS' bureaucratic hierarchy looks a lot like those of some of the Western countries.

What is the significance of Mosul recapture?

- Iraqi PM has managed to **stitch together a difficult alliance** to fight the jihadists.
- Despite conflicting interests the joint front they (between Iraq, Iran & US) forged against the IS could be a **replicable model elsewhere**, especially in Syria where the IS still controls territories.

8.3 Qatar Crisis

Why in news?

The recent diplomatic crisis in Qatar is de-escalating.

What is the immediate reason for this crisis?

- According to Gulf News, the emir of Qatar called Hezbollah a legitimate resistance movement and called Iran a "big power in the stabilisation of the region" and said that there was "no wisdom in harbouring hostility toward Iran".
- It was published by the Qatar News Agency (QNA).
- However, Qatar's government communications office claimed that QNA had been hacked.

- The broad reason given for this drastic move is that the emirate poses a threat to their national security and they have accused the Gulf state of supporting terrorism.

OPEC

- Organization of the Petroleum Exporting Countries is an intergovernmental organization of 14 nations.
- It was founded in 1960 in Baghdad, Iraq by the first five members (Iran, Iraq, Kuwait, Saudi Arabia, Venezuela).
- It is headquartered in Vienna, Austria.

How did the issue de-escalated?

- Saudi Arabia, UAE, Bahrain, and Egypt had listed 13 demands and warned that there would be serious consequences if Qatar failed to yield.
- Qatar rejected the ultimatum and the 4 countries have not yet carried out their threats.
- Qatar sldo leaked the text of the demands to the media in order to draw the attention of the international community.
- The world came to realize that the four countries wanted Qatar to **surrender its sovereignty** in the realm of foreign policy.
- They also wanted to align Qatar's social, political and economic policies with that of the Gulf Cooperation Council (GCC) countries.
- Following the international scrutiny, the countries have **softened their stand**, signaling that it might be enough if Qatar were to accede to 'Six Principles'.

What was the reason for de-escalation?

- The initial move by Donald Trump was intended to project Saudi Arabia as the undisputed leader of the Muslim world.
- But, later the US State Department **publicly rebuked Saudi Arabia** for resorting to an embargo against Qatar without justification.
- This might have probably compelled the four countries to come out with their badly drafted set of demands.
- U.S' Secretary of State went to Saudi Arabia where he met King Salman and the foreign ministers of the four countries.
- Though **there was no breakthrough**, the four countries got a clear message that the US had taken a stand for an early resolution of the crisis viz. a position that favored Qatar.
- With this, the foreign ministers of the four countries issued a declaration of 'Six Principles'.

The four countries gave a joint statement in Cairo, stating that the six principles are:

"1. Commitment to combat extremism and terrorism in all its forms and to prevent their financing or the provision of safe havens.

2. Prohibiting all acts of incitement and all forms of expression which spread, incite, promote or justify hatred and violence.

3. Full commitment to Riyadh Agreement 2013 and the supplementary agreement and its executive mechanism for 2014 within the framework of the Gulf Cooperation Council (GCC) for Arab States.

4. Commitment to all the outcomes of the Arab-Islamic-US Summit held in Riyadh in May 2017.

5. To refrain from interfering in the internal affairs of States and from supporting illegal entities.

6. The responsibility of all States of international community to confront all forms of extremism and terrorism as a threat to international peace and security."

How did Qatar handled the crisis?

- Qatar made it clear that it would be prepared talk about the principles **only after the blockade is lifted**.
- Qatar's handled the issue withn diplomatic maturity and patience.
- It has chosen **not to retaliate**.
- UAE continues to get natural gas from Qatar.
- They have not expelled 300,000 Egyptians who continue to work in its territory.
- Qatar has even constituted a Compensation Claims Committee to consolidate claims from Qatar Airways, banks, and others who have been affected by the blockade.

8.4 North Korea Missile Test

Why in news?

North Korea tested another intercontinental ballistic missile (ICBM) that appears to have the range to hit major US cities.

What is the significance?

- If the claims are true, Pyongyang may be even further advanced in its missile program than was previously thought.
- It now has major US cities like Los Angeles, Denver and Chicago well within its range.
- It even has the ability to reach as far as New York City and Boston.
- South Korea's joint chiefs of staff said they estimate that the ICBM is more advanced than one launched earlier this July.
- But the test cannot determine how heavy a payload the missile was carrying in its warhead. The heavier the payload, the shorter the range.
- It shows the US' sanctions are not changing North Korea's activities.

North Korean missile range estimates



Tested /operational

- ① Hwasong: 1,000km ② Nodong: 1,300km ③ Musudan: 3,500km
④ Hwasong-14: 6,700 km

Untested

- ⑤ KN-08: 11,500km

Source: James Martin Center for Nonproliferation Studies / NTI

BBC

8.5 Status of US-Iran Nuclear deal

Why in news?

US Administration pledges to toughen enforcement of the deal and increase pressure on Tehran.

What is the US-Iran nuclear deal about?

According to the deal made between earlier US administration and Iran –

- America and its allies will recognise Iran's right to enrich uranium for peaceful purposes, as guaranteed by the nuclear non-proliferation treaty.
- Iran will enrich uranium, the vital process that could be used to make the core of a nuclear bomb, this will be monitored by the International Atomic Energy Agency (IAEA).
- The Fordow enrichment plant, which was built in Secret Mountain, will be converted into a research centre.
- Iran's heavy water plant at Arak will be redesigned and rebuilt to make it impossible to produce weapons-grade plutonium.
- Iran will allow IAEA inspectors more powers to monitor its nuclear plants and other facilities.
- Once the IAEA has confirmed that Iran has taken these steps, America and its allies will lift all nuclear-related economic sanctions, including oil embargos and financial restrictions.
- Restrictions will stay on its ballistic missile programme for another eight.

What is the stand of present US administration?

- Present US administration has repeatedly condemned the deal brokered by President Barack Obama as a dangerous surrender to Iran.
- By law, the US administration is required to notify Congress every 90 days whether Iran is living up to the deal.
- U.S. administration don't want to certify that Iran is fulfilling with an international nuclear agreement.

- The Present government is intended to toughen enforcement of the deal, apply new sanctions on Iran for its “support of terrorism” and other “destabilising activities”,
- There are plans for a negotiation with European partners to craft a broader strategy to increase pressure on Tehran.

8.6 Implications of fine on Google

Why in news?

European Union’s competition watchdog has fined Google with 2.42 billion euro.

What was the reason?

- ‘Google Shopping’ is Google’s own price-comparison website.
- Google is alleged of abusing its position of dominance in the market by favouring products listed on ‘Google Shopping’, over those on competing websites.

Is the judgment justified?

- The fine is still considered baseless because businesses can have a valid economic reason to showcase certain products more prominently than others.
- Advertisements can be considered faulty and punishable only if the standards are not met.
- Google holds over 80% of the market share in Europe’s search engine market.
- But it is not a legal monopoly, as anybody is free to compete against it.
- So this did not call for an economic regulation by EU.
- The decision also rejected the pro-consumer product design of Google Shopping.

What should be done?

- It should be ensured that EU’s regulatory overreach is not a barrier for innovation and consumers.
- Innovations that benefit consumers must be properly differentiated from those that hurt competitors.

8.7 Iran in Iraq

What is the issue?

Iran is strongly growing its presence in Iraq

How did Iran gain entry?

- Iran benefited from the United States’ 2003 invasion of Iraq.
- The U.S.-led invasion removed this hostile regime and practically opened the gates of Iraq to an ambitious Iran ruled by Shia clergy.
- Iraq is a Shia-majority country, which Saddam Hussein’s secular Ba’ath party ruled for decades with an iron fist.
- During the post-Saddam period in Iraq, the Shia parties, rose to power.
- Ever since, Iran’s influence in Iraq has only grown.

Why is Iraq crucial for Iran?

- Iran doesn't have many allies in a region which is dominated by hostile Sunni powers.
- Iran counters this asymmetry in geopolitical arena by building influence with non-state actors.
- Hezbollah, the Lebanese Shia militia, is one of its greatest strategic assets in West Asia.
- With a friendly government in Baghdad, Iran not only got a buffer between itself and the Sunni bloc, but also direct access to Syria, which has been a conduit for Iranian supplies for Hezbollah.
- Given Iran's strategic ambitions and the recent history of its dominance in Iraq, it's unlikely to pill back.
- It is trying to deepen its relations with countries such as Iraq and Syria and non-state militias such as Hezbollah and Hashd al-Shaabi.

8.8 Disqualification of Pakistan's PM

What is the issue?

A three-member Bench of the Supreme Court disqualified Nawaz Sharif from PM's office.

What is the case?

- In the recently unearthed Panama Papers scandal, Nawaz Sharif, Pakistan's Prime Minister was accused.
- He was acting as a director in a company registered in the UAE while he was heading the government.
- The decision is based on the report by a Joint Investigation Team (JIT) established by the orders of the court to investigate Mr. Sharif and his family's assets in offshore companies.
- Mr. Sharif should not hold office as per Article 62 (1) (f) of the 1973 Constitution as he would be declared as not being *sadiq* (truthful) and *ameen* (honest).

What will be the impact?

- Nawaz Sharif resigned from office.
- There will not an election soon due to the need for a new delimitation of constituencies based on the recently held census.
- His two sons and a daughter are also named in the Panama leaks. If the entire family is disqualified, there will be infighting in the party for grabbing the power.
- It is not that lack of accountability is not a huge problem in Pakistan but that accountability has always been used as a political tool to punish rivals.
- In the absence of the enactment of a strong law or principle of the rule of law, even courts are perceived by the common man as either corrupt or highly political.

Panama Papers leak

- It is a huge leak of documents that exposed how the rich and powerful use tax havens to hide their wealth.
- The files were leaked from one of the world's most secretive companies, a Panamanian law firm called MossackFonseca.

8.9 Importance of Maldives Stability

What is the issue?

- Recently, the unified Maldivian opposition pressed for a no-confidence vote against the speaker on July 24.
- But, the vote has been cancelled after four MPs were stripped of their seats.
- The issue assumes importance as Maldives has become an extension of the game for **regional influence** being played out between India and China.

Why Maldives' stability is important?

- Maldives is strategically located along major sea lanes in the Indian Ocean.
- A **significant portion of world trade** takes place through the Indian Ocean.
- All the energy supplies coming from Gulf nations pass through this area.
- After the democratically elected government of Mohamed Nasheed was replaced in an alleged coup, Maldives has been facing **political uncertainty**.
- Though India wants political stability and democracy to return to the country, it has no role in the ongoing developments in Maldives.
- Chinese President persuaded Maldives to become a key link in his expansive Belt and Road Initiative (BRI).
- In an interview, former Maldivian President Mohamed Nasheed said President Yameen had given **16 geostrategically located islands to the Chinese**.
- Also, **Wahabbism** is spreading fast in the Maldives, and its citizens have been found fighting alongside the Islamic State.
- So, what is in Maldives' interest very much depends on what is in India's interest.

8.10 Unrest in Poland

Why in news?

Opposition to the recent judicial reforms has led to large scale protest against the ruling government in Poland.

What are the recent developments?

- Poland's right-wing government, the ruling conservative Law and Justice (PiS) party, has been bringing major changes to democratic institutions ever since it assumed office in 2015.
- PM led government has abolished the tribunal that adjudicates on the constitutionality of laws relating to its powers.
- It is in the process of eliminating principle of checks and balances by concentrating power in the hands of the president.
- It also introduced measures to control the media.
- It also introduced following measures to curb judicial independence.
 1. All judges of the Supreme Court should step down, except those whom the President chooses.
 2. Parliament to be given control over judicial appointments.

- These moves have created dissent among the people
- It is being opposed by President Andrzej Duda himself.
- He recently vetoed these two measures that was clearly against the rule of law.
- However, he did assent to another controversial measure which empowers the justice minister to sack the heads of lower courts.

What is the government's rationale?

- The ruling government claims that the present system created after the fall of communism in Poland in 1989 is unpopular and needs alternatives.
- Popular surveys however suggest that people are not in favour of any undemocratic alternatives.

What are the implications of these changes?

- These legislations have provoked a crisis in relations with the European Union.
- It has sparked one of the biggest political conflicts since Poland overthrew communism in 1989.
- EU is concerned about the politicisation of the courts and said that it would move to block Poland's voting rights if it goes ahead with its plans.

8.11 European Union Unified Budget

Why in news?

Germany and France have expressed views in favour of the European Union (EU) having a unified budget.

What are the concerns?

- It will only **erode the national autonomy** of member states and probably involve **delays** in the budgeting process.
- It is also unlikely to help the EU achieve the desired outcome of achieving a uniform or near-uniform price level, inflation rate, unemployment threshold, debt position, etc.
- There are **dissimilarities in the growth pattern** across EU.
- This calls for greater caution in moving towards a common EU budgetary institution.
- **Fiscal transfers** that need to be carried out under an EU budget to the constituent countries related in accordance with their economic needs is another difficult task.
- The EU still **has not reached a stage** when receipts generated through tax and non-tax revenues or borrowings of a member state can be pooled under a common budget.

What should be done?

It can be successful only if the resource raising and allocation process is based on economic principles and not driven by politics and the relative strength of the member states.

G.S PAPER III

9. ECONOMY

9.1 Air India Disinvestment

Why in news?

The Union Cabinet gave its approval for disinvestment of government equity in Air India.

What was the rationale behind the move?

- The airline had reported losses for six straight years.
- Air India's debt, now about \$8 billion, is growing unsustainably.
- Air India has been surviving on a Rs. 30,000-crore bailout package put together in 2012 to help its turnaround, and the debt relief provided by public sector banks.
- More than 18,000 workers were on its rolls for a fleet of just about two dozen planes.
- It **continues to post heavy annual losses** and has a massive outstanding debt of Rs 46,500 crore.

What are the problems in the proposal?

- It is not yet clear whether the airline will be fully privatised or how its eventual sale will be executed.
- A **clear timeline** for implementation has not been framed.
- The idea of **selling Air India's assets one at a time**, by unbundling them to secure better valuation, could lead to delays.

What could be done?

- **Both domestic and foreign buyers should be allowed to bid freely for stakes.**
- Government should re-tune its FDI policy to allow foreign investors to buy a stake in Air India.
- To achieve a relatively quick exit, the best option would be to transfer all unrelated assets such as subsidiaries and real estate to a **special purpose vehicle (SPV)** at zero value.
- The name SPV is given to an entity which is formed for a single, well-defined and narrow purpose.
- All debt, other than that related to aircraft, should be transferred to this SPV.
- Thus, the airline, with a relatively clean balance sheet, would be available to be sold.

9.2 De-Registering Shell Companies

Why in news?

The Ministry of Corporate Affairs (MCA) is preparing to send show-cause notices to over three lakh more shell companies for striking off their names from the 'register of companies'.

What is a Shell Company?

- A shell company is a company that exists but does not actually do any business or have any assets.
- They exist merely as a front for a person or organisation that wishes to hide its identity.

What is the reason?

- The scrutiny against shell companies was stepped up in the wake of demonetisation and as part of the action against black money.
- The action is focused against companies that failed to start business within one year of incorporation or were not carrying on any business for two immediately preceding financial years or not applied for dormant status.
- Actions are initiated under the Companies Act.
- In April, Registrar of Companies (RoC) issued show cause notices to over two lakh companies for striking off their names.
- The firms are given 30 days to submit their response.
- If the reply is found unsatisfactory, the corporate entity's name will be removed.
- The Enforcement Directorate (ED) will be roped in to probe if companies deregistered recently have been involved in money laundering

9.3 Options trading in commodity futures**Why in news?**

Securities and Exchange Board of India (SEBI) recently laid out rules for the introduction of commodity options.

What are futures and options?

- Derivatives are financial instruments with a price that is dependent upon or derived from one or more underlying assets.
- Futures and options represent two of the most common form of "Derivatives".
- An option gives the buyer the right, but not the obligation to buy (or sell) a certain asset at a specific price at any time during the life of the contract.
- In futures contract buyer has the obligation to purchase a specific asset, and the seller has to sell and deliver that asset at a specific future date.

What are the changes made?

- SEBI has also permitted options trading in commodity futures.
- It allowed commodity exchanges to launch options in agri and non-agri commodity futures if they pass the minimum average daily volume requirement.

What are benefits?

- Options are better hedging-and-trading tools than futures.
- Losses are limited for the buyer and costs are lower. Buyer is less affected by volatility in market price.
- The launch of options will boost overall market participation and also complement the existing futures.
- Thus it makes the commodities market more efficient.
- The combination of futures and options can give market participants the benefit of price discovery of futures.

9.4 Unemployment in India

Why in news?

Surveys by the Centre for Monitoring the Indian Economy (CMIE) have highlighted that employment in India is not expanding in par with the growth of the economy.

What are the concerns?

- Unutilised employment potential in the phase of demographic transition will only lead to a demographic catastrophe.
- Despite consistent growth in GDP, corresponding job creation has not taken place.
- Jobless growth is a dangerous trend as it furthers social inequality.

What are the possible causes?

- The root cause of the problem is the shortage of skills.
- Labour-intensive sectors are suffering from slowdown in private investment particularly after demonetisation.
- Unfavourable incentives that do not allow companies to grow and take advantage of abundant cheap labour.
- One of the other probable reasons for jobless growth is automation in most economic activities which has reduced labour requirements.

What has been done by the government?

- **National Career Service portal** was launched serving as a common platform connecting job-seekers, employers, skill providers, placement organisations and counsellors.
- PradhanMantriKaushalVikasYojana(**PMKVY**) a skill development scheme to help young people learn industry-relevant skills.
- **MGNREGA** has contributed to lowering unemployment in rural areas.
- Start Up India, Stand Up India, National Skill Development Mission.

What should be done?

- **Structural reforms** to labour, land and capital markets for sustainable job creation so as to boost the Indian manufacturing sector.
- The government should make its teaching and academic **curricula** more **employable-driven** to address shortage of skills.
- Reforming archaic **labour laws** which currently proliferate only contractual jobs instead of permanent employment.
- **Infrastructure investment** can be utilised as an engine of job-creation.
- India also needs to bargain hard with the **US** for **easier work visa norms** so that pressure of some unemployment can be eased out to an extent.

9.5 Regulating bitcoins in India

Why in News?

The government is considering the introduction of a regulatory regime for virtual currencies such as Bitcoins.

What is a bitcoin?

- Bitcoin is a type of crypto-currency.
- Crypto-currency is a digital currency that allows transacting parties to remain anonymous while confirming the transaction is valid.
- It is not owned or controlled by any institution – governments or private.

What is the current status of bitcoins in India?

- Bitcoins are classified only as movable property and more specifically as computer software.
- This in itself does not make bitcoins illegal.
- Neither did the government has formally brought bitcoins under the definitions of currency or prepaid payment instruments.
- It is thus right to say that currently the crypto-currency is neither illegal nor legal in India.
- The pros and cons of legalising them is currently debated among the government circles.

What are the benefits of legalising bitcoins?

- Trading of bitcoins would be brought under the **stock market regulator**, Securities and Exchange Board of India (SEBI).
- Bitcoins can be traded on registered exchanges which will promote a formal tax base. Returns from investment in Bitcoins would be **taxed**.
- Use of bitcoins for **illegal activities** such as money laundering, terror funding and drug trafficking can be **checked**.
- If any foreign payment is made through Bitcoins, it would fall under the purview of Foreign Exchange Management Act, FEMA Act.

9.6 Record low retail inflation

Why in news?

Consumer price inflation had slipped to 1.54%.

Why is there a reduced inflation?

- Activity in the manufacturing sector has also slowed down.
- GST-related adjustment and subsequent destocking may have reduced industrial growth.

Why it is a matter of concern?

- Moderate inflation levels are needed to drive consumption, under the assumption that higher levels of spending are crucial for economic growth.

- Monetary Policy Committee (MPC) fixed the inflation levels to maintain in the zone between 2 and 4%.

What is now expected of the RBI?

- RBI has been maintaining the Repo rate at 6.25% since October 2016.
- Since the inflation is lower now, a cut in the rate is expected.

Why RBI should be cautious before lowering Repo?

- Several State governments have taken fiscally expansive measures like loan waivers.
- This will increase the purchasing power of people which in turn might increase the inflation.
- The monsoon and its effect on prices is yet to be felt.
- The impact of the introduction of the GST, will reflect in the prices.
- Increased allowances under the Seventh Central Pay Commission's award could also transmit into price gains.
- All these would have had a complementary effect of low inflation.

9.7 WLTF Banks

What is the issue?

RBI specified eligibility criteria of projects that can be funded by WLTF

What are WLTF banks?

- In April 2017, the RBI released a discussion paper on setting up of wholesale and long-term finance (WLTF) banks.
- The objective of these banks is to fund long-term infrastructure and corporate projects.
- These banks will fill the funding gaps which are left by the commercial banks.

What is the need for this new type of banks?

- The Indian banking system has significantly high percentage of non-performing assets (NPAs).
- Recently, the RBI also identified 12 insolvent accounts, which are responsible for 25 per cent of the NPAs in the Indian banking system.
- Due to the ongoing NPA issues, commercial banks are already wary to take further long-term exposures, thus creating a critical funding gap for huge projects.

How are these banks designed?

- The RBI proposes an initial minimum capital of Rs 1,000 crore.
- In the long term, these banks are funded appropriately to the risk in their assets.
- The promoter group for WLTF banks has deep expertise in appraising long-term credits and tackling associated challenges.

What are the issues with WLTF banks?

- This bank will be counter-productive for the commercial banks.

- There will be greater challenges for payment banks and small finance banks.
- The funds which are received by small marginal banks from RBI will be diverted due to this new banks.

How WLTF banks can be made successful?

- These banks can raise current account and deposits above Rs 10 crore as one of the funding sources.
- The best-suited source of capital for WLTF banks would be insurance companies, pension funds, sovereign wealth funds, international capital markets and long-term bond markets.
- Selecting the right promoter group for granting the licence holds the efficiency of this banks.
- Framing suitable financial structures for raising long-term funds would go a long way in making WLTF banks a success.

9.8 Real Financial Inclusion

What was the issue?

- The JAM framework has been the centre piece of financial inclusion in India.
- But the focus on reforming PSBs should be revamped for better inclusion.

What is financial inclusion?

- It is a process of making financial services (savings, credits and insurance) accessible at affordable costs to all individuals and businesses.
- A broad and vibrant financial sector can lubricate the engine of growth.
- It is an important aspect of financial development.
- Financial inclusion can also be an important catalyst for promoting equity and poverty reduction.
- It allows even the less well-off to store money and send and receive payments.

What is JAM?

- It is a three-part strategy based on using digital technologies standing for Jan Dhan (banking), Aadhaar (biometric identity) and Mobile (transactions).
- It has the potential to avoid a common problem in policymaking in India like intervention and leakage and facilitate financial inclusion.
- e.g Biometric identity cards have reduced corruption in welfare programmes.

Why reforming PSBs should also be focussed?

- The commercial bank loan officers can be more efficient and include more people if provided with better designed incentives.
- e.g A study found that a properly incentivised loan agents working for SEWA Bank can improve access to loans and integration of women into the labour market.
- Attention should be given to the structure of such organisations, including the incentives provided to employees and overall organisational culture.
- Enlisting local trader agents in lending decisions can improve inclusion of small farmers.

- Better targeting of credit to small farmers might also help them in getting better prices for their output.
- Agricultural insurance can be designed to be both affordable and beneficial for production and welfare.
- Existing government assistance programs, such as loans, training, and marketing, do not help these firms transition and grow.
- Employment creation through the growth of India's myriad small firms seems like an essential part of generating job-friendly and inclusive growth.
- Institutional innovation like effective regulation, targeting etc., is necessary in both the public and private sector.

9.9 Merger of ONGC-HPCL

Why in news?

The Union Cabinet nodded to the purchase of Hindustan Petroleum Corporation Limited by the Oil and Natural Gas Corporation.

What is the status of oil firms in India?

- India imports –
 1. 80% of its crude oil demand.
 2. 50% of its liquefied petroleum gas (LPG) demand.
 3. 35% of its natural gas requirement.
- India has 18 PSU oil firms.
- Hindustan Petroleum Corporation (HPCL) is the country's second largest fuel retailer.
- Oil and Natural Gas Corporation (ONGC), is the country's largest oil producer.
- Gas (India) Limited (GAIL) is the largest state-owned natural gas processing and distribution company in India.

What is the need for the merger?

- India's oil import dependency is likely to rise up to 90%.
- The primary reason is to improve the handle on energy security for the country.
- The merger of public sector oil companies will create larger entities and a national brand.
- Many Asian countries have single integrated oil companies, India want to try this model.
- The occupational and maintenance cost of various agencies for one single sector is tedious.

What are the advantages of the merger?

- Helps India to compete at the global level, and help better absorb oil price shocks.
- Promotes economic growth by cut on various managing expenses.
- Helps the government for proper utilization of financial resources and technological expertise.

- There are possibilities of exploring domestic oil potential.

What are the concerns of the merger?

- There is question on financial viability of ONGC to make this deal.
- There are proofs for the inefficiency of ONGC investment on different firms.
- There was a slippage in HPCL's share price on the BSE.
- There are concerns about assimilating employees from very different work cultures.
- The quality of service may be reduced, due to lack of competition.

9.10 Fiscal strain in the states

What is the issue?

- The combined fiscal position of states has deteriorated sharply over the last couple of years.
- The gross fiscal deficit-GDP ratio breached the 3% threshold in 2015-16.
- This marks a reversal of the trend till two years back, when states were more fiscally prudent than the central government.
- According to the 14th Finance Commission, all the states are required to keep fiscal deficit under 3% of the Gross State Domestic Product (GSDP) from 2015-16 to 2019-20.

What are the causes?

- The series of **farm loan waivers** has significantly strained the states' financial conditions.
- Rise in the interest liabilities of states that have participated in financial restructuring of electricity distribution utilities (through the **UDAY scheme**).
- States' revenues from stamp duties have also seen a slowdown in the backdrop of the continuing impact of **demonetisation** on property sales.
- Many states are projected to see a sharp dip in state excise revenues from alcohol due to the closure of bars along highways and efforts at **prohibition**.

How does the future look?

- The RBI has strongly highlighted these risks and two additional stress points —
 1. the guarantee commitments of state governments with respect of state public sector enterprises.
 2. the potential increase in states' committed liabilities in case they decide to implement the recommendations of their own Pay Commissions in FY'18.
- The deteriorating nature of states' fiscal would be counterproductive to the Centre's consolidation exercise in the longer run.

9.11 Change in Financial Year

What is the issue?

The government is considering the proposal to change the financial year from April-March to January-December.

What are the merits?

- The shifting of financial year will align India with the prevailing practice of developed countries.
- This will be a **progressive, convenient transition** for the Indian economy as it gets increasingly integrated to the global economy.
- For MNC firms in India, which are currently dealing with two types of financial years here and at the parent country, a uniform structure will be a relief to manage their accounts.
- The change will also align the financial year with the monsoon cycle and also with the country's crop harvests both for Rabi and Kharif seasons.
- Another important factor is that at present the **budget cycle suffers due to lack of sufficient data** on crop income, monsoon forecast etc.
- Presently, before the budget presentation in February, the government doesn't get any solid data on monsoon forecast for new financial year.
- The rain gamble causes difficulties in formulating the budget.
- Most importantly, it is about time India **moved on from colonial tradition** and decided on issues based on merit.

What are the demerits?

- If we want the transition, then major changes like shifting Parliamentary Sessions, Budget presentation in Nov-Dec, etc., will be needed.
- The one time **implementation cost** along with major financial reforms like GST rollout and merger of plan and non-plan expenditure may be too big a burden to handle.
- Already, there is confusion in the industry with the change in the tax system when the GST finally happens.
- A shift to new fiscal year, too soon, will add to this.
- Also, a host of statutes and taxation laws will need to be amended for the change to take place.
- Thus, the move will be a **costly and cumbersome** administrative exercise for both companies as well as the government.
- The economic benefits would definitely outweigh the administrative difficulties that will arise initially for the implementation.
- The change will indeed be a progressive step it seems there is no urgency to implement when the GST is still facing multiple hurdles.

9.12 Consolidation of Banks

What is the issue?

- The government is working on a consolidation plan for public sector banks, in order to create a three-tier structure.
- While the earlier objective of mergers was strengthening the risk-taking ability of banks, the demand now is created with increasing bad assets.

- Experts are however emphasizing the need for more small finance banks, regional and local banks despite mergers.

How do mergers happen?

- Bank consolidation procedures are laid out in the Banking Regulation Act, 1949.
- Any two public sector banking entities can initiate merger talks, but the scheme of the merger must be finalized by the government in consultation with the central bank and it must be placed in Parliament.
- Parliament reserves the right to modify or reject the scheme. In case of a merger between a public sector bank and a private bank too, parliamentary approval is a must.

What are the grounds for mergers?

- Most bank mergers have been an offshoot of the central bank's efforts to protect the financial system and depositors' money.
- A few of them are also driven by the need for consolidation and growth.
- Mergers expect weak banks to sell assets, reduce overheads and shut loss-making branches.

What are the implications of mergers?

- Recently, five SBI associate banks have been merged with their parent, catapulting the entity in the league of top 50 global banks in terms of assets.
- However even SBI has not been able to escape the pain of merging its associates with itself. Its gross NPAs have gone up, and the merger entity has also reported a loss.
- The key to success of any merger will be large-scale shutting of branches in urban centres, reduction in staff strength and exploring the right business synergy and work culture.
- Government should be ready to make massive fund infusion.
- Given the mounting bad assets and the increased need for capital infusion, it is ideal to start the consolidation process after the banks bounce back to healthy status.

9.13 Banking Regulation (Amendment) Bill, 2017

Why in news?

Recently, the Union Finance Minister introduced the Banking Regulation (Amendment) Bill, 2017, in the Lok Sabha.

What are the provisions of the bill?

- It seeks to amend the Banking Regulation Act, 1949 and replace the Banking Regulation (Amendment) Ordinance, 2017.
- It empowers the RBI to resolve the problem of stressed assets.
- It allows the RBI to initiate insolvency resolution process on specific stressed assets.
- The RBI will also be empowered to issue directives for resolution and appoint authorities or committees to advise the banking companies on stressed asset resolution.
- The recovery proceedings will be carried out under the Insolvency and Bankruptcy Code, 2016 that provides for a time-bound process to resolve defaults.

What was the need?

- Non-performing assets of the banks have risen to Rs.9 lakh crore.
- Hence, urgent measures are required for their speedy resolution.
- Therefore, it was considered necessary to make provisions in the Banking Regulation Act, 1949 for authorizing the Reserve Bank of India to issue directions to any banking company or banking companies in this regard.
- It has to be done to effectively use the provisions of the Insolvency and Bankruptcy Code, 2016 for timely resolution of stressed assets.

What actions are taken by RBI?

- RBI's internal advisory committee has already identified 12 large stressed cases, for proceedings under the insolvency and bankruptcy code.
- Subsequently, the central bank advised banks to set aside 50% provisioning against secured exposure and 100% against unsecured exposure in all cases referred for bankruptcy.
- Action under the Insolvency and Bankruptcy Code has already begun in certain cases, including Essar Steel, Bhushan Steel and Bhushan Power & Steel.
- Critics also feel that giving such powers to the RBI will switch its attention from macro-economic issues to micro-economic issues and render the bank management useless.

9.14 Consumer Protection Amendment Bill

What is the issue?

- Centre had approved a new Consumer Protection Bill in 2015 to replace the Consumer Protection Act, 1986.
- Government has recently made many changes to the bill based on the recommendations of the Parliamentary Standing Committee.
- This reworked bill is pending for a long time, the demand for clearing which is rising.

What have necessitated an amendment?

- The earlier legislation was not keeping pace with the **new market dynamics**, multi-layered delivery chains, and often misleading **advertising** and marketing machinery.
- Need for new provisions to deal with the fast changing technological and market dynamics, **e-commerce** being the latest.
- The Act doesn't grant the authority to proceed against any person guilty of a violation under the Act. Penal steps could be taken only through a judicial process before the State or District Consumer Redressal Forums.
- These forums are plagued by administrative issues, and consumers are being made to suffer for an average of five years to get their grievances redressed.

What are the provisions of the new bill?

- The new Bill includes the establishment of an **executive agency**, the Central Consumer Protection Authority (CCPA), which will protect and enforce the rights of consumers.
- The new bill includes stringent provisions to tackle misleading **advertisements**, as well as to fix liability on endorsers and celebrities.

- The new Bill contains an enabling provision for consumers to **file complaints electronically**.
- The Bill has a provision for **product liability** and provides enough powers to the regulatory authority to recall products and cancel licences if a consumer complaint affects more than one individual.
- The powers to take action for damage caused by a product will act as a deterrent for manufacturers since the liability quotient has increased.
- Provisions aimed at simplifying the **consumer dispute resolution** process include,
 1. enhancing the pecuniary jurisdiction of the Consumer Grievance Redress Agencies.
 2. powers to State and District Commissions to review their orders.
 3. setting up a 'circuit bench' in order to facilitate quicker disposal of complaints.
- The Bill also proposes to set up **Consumer Mediation Cells** which will be attached to the redressal commissions at the district, State and national levels. This will further help reduce the backlog of cases and lessen the strain on redressal forums.

9.15 National Financial reporting agency

Why in news?

Centre is likely to institute a new independent regulator the National Financial Reporting Authority (NFRA).

What are the issues with ICAI?

- The Institute of Chartered Accounts for India (ICAI) the professional association of chartered accountants.
- The ICAI's has a poor regulatory record, it serves as an argument against self-regulation.
- The prosecution rate of the offenders is too low, and the whole process drags on for years with thousands of pending cases with the ICAI,
- E.g. only around 25 auditors have faced action in over a decade and around 1,400 cases were pending.

What is NFRA?

- The NFRA have adequate powers to enforce compliance of accounting standards and punish violations.
- From the earlier agency the National Advisory Committee on Accounting Standards (NACAS) the powers are to be transferred to NFRA.
- The proposed NFRA could have as many as 15 members charged with regulating the profession.
- The chairman is mandated to advise on issues related to audit and accounting standards and be the regulator for the profession.
- The law provides for NFRA to look into matters of professional or other misconduct and also suspend CAs and firms from practising for six months to 10 years.

What is the need for such agency?

- The demand for the NFRA is not a new one, the Companies Act of 2013 already provides for such a regulatory body, but it is not efficient.
- Instituting a separate body to enforce discipline, the government will be removing a clear conflict of interest.

- Many chartered accountants help tax evaders hassle free, this agency will help to have check on such people.
- The credibility of accounting professionals is a critical component of market functioning.

9.16 Hurdles in goods movement

What is the issue?

- Post-GST, the elimination of checkpoints by almost all states has resulted in a significant reduction in waiting time and increase in road transport efficiency.
- However there are other issues to be addressed for smooth movement of goods.

What are the other hurdles in this regard?

- e-waybill is an electronic way bill for the movement of goods across the country. Under GST, a registered person who intends to initiate a movement of goods of value exceeding Rs 50,000 should generate an e-Way bill.
- While earlier businesses had an option to have an e-invoice or a physical invoice for the goods transported, under GST the e-waybill is mandatory.
- An anomaly exists as to the purpose of this option, because an e-invoice and e-waybill would repeat the same data.
- Moreover, there are differences between the State and Central governments, and among the States, on the rules and format regarding the e-waybill.
- Trucks are not stopped only by tax-related check-posts but a host of other transport regulations is also a reason why trucks are stopped and inspected.
- There is a need for updating the vehicle number in the e-waybill every time shipments change trucks which is delaying the transport.

What are the possible solutions?

- It is better to insist on all invoices being filed online and using the online invoices as the **de-facto e-waybill**.
- An e-waybill can use **trucks as reference** for checking goods instead of vehicles, thereby reducing the procedural delays.
- **Integration of VAHAN** (a database of the ministry of road transport with all the relevant data related to the vehicles) **and e-waybill** (with details of goods) would simplify the checks and inspections.
- **RFID**-enabled e-waybill and RFID chip-enabled number plate of the vehicle tagged to the VAHAN database can serve to be a modern automated check-point.
- A modern automated check-point equipped with **weigh-in motion technology** can monitor overloading as the truck passes by.
- A **taskforce** for the seamless movement of goods has been set up by the Government to consider reforms backed by technology solutions.
- All physical inspection of goods to be subject to CCTV camera recording and all challans to be issued electronically.
- Data related to discretionary inspections by officers can be subjected to the RTI Act.

- Strict **norms** are needed to ensure fairness and transparency of enforcement.

9.17 Issues with Sovereign Gold Bond Scheme

Why in news?

The Gold Bond scheme has attracted enough gold in the society despite handsome interest rate.

What is the Sovereign Gold Bond Scheme?

- The government of India recently launched a Sovereign Gold Scheme to provide an alternate option when it comes to owning gold.
- This scheme aims to reduce the demand for physical gold, thereby keeping a tab on gold imports and utilising resources effectively.
- With the Reserve Bank of India issuing these gold bonds, it brings in transparency and trust, providing an avenue wherein people can own gold without having to worry about its storage or safety.

How does Sovereign Gold Bond Scheme operate?

- Under the Sovereign Gold Bond Scheme, the Reserve Bank of India will issue the bonds on behalf of the Government of India.
- The bonds will be sold at post offices and banks and issued in denomination of gram.
- They will issue these bonds on payment of money. Later on, the bonds will be connected to the price of gold.
- From one person, the Sovereign Gold Bond Scheme would accept a minimum investment of 2 gm gold and a maximum investment of 500 gm in a single fiscal year.

Why the scheme was introduced?

- The gold demand rises in times of uncertainty or high inflation.
- Gold demand is mostly met through imports
- Years of high imports are ones of high current account deficits which, in turn, have weakened the rupee.
- So, in FY12, when India imported \$56.5 billion of gold, the current account deficit increased to \$78.2 billion.
- It peaked at \$88.2 billion or 4.8% of GDP in FY13, when India imported gold worth \$53.8 billion.
- It is to reduce this huge import bill that, in November 2015, the government tried to introduce gold bonds.

What were the shortcomings?

- Only 2% of the average gold consumption over the past five years or less than 6% of the average investment demand of gold has been substituted by gold bonds.
- This is because of the bad design of the product which did not take into account the reason people bought gold, apart from the anonymity.
- The bonds were bought/sold on the basis of the average price five days before the transaction.
- This ensured buyers/sellers lost out on the appreciation of gold.
- Similarly, there was a 5-year lock-in for the bond.

- Similarly to bring in market-makers to ensure greater liquidity for the bonds, they are listed on exchanges.
- It does not make sense to have a lock-in for the bonds.
- A more liquid market will ensure the bonds can be sold, but the lock-in will mean the price got for a sale will be discounted.

9.18 Driverless Cars - An Opportunity

What is the issue?

- The incentives provided by cab operators to their drivers are being taken back as they are getting hold of the market.
- Drivers protested and sought government intervention, after being jobless with unviable cab driver option.
- Union Transport Minister has said that driverless cars will not be allowed in India in order to save jobs and secure these drivers.
- However, many claim that driverless cars are actually an opportunity for India and that they generate high paying jobs.

How is it an opportunity?

- Today, no global automaker is confident that Indian roads can have driverless cars.
- But the government should encourage **Indian innovation** in these autonomous vehicles.
- This will provide scope for
 1. Massive **investments** by companies in designing vehicles, building sensors and other equipments.
 2. **Training** the cars to drive on Indian roads.
 3. Making advances in **technologies** such as Artificial Intelligence, Machine Learning and other such emerging areas.
- All these are only job generating opportunities than otherwise.

What should the government do?

- Doing business should be made easy for the automakers, encouraging them to invest and innovate thereby generating job opportunities.
- Planners and policy makers should design better road signs, and help build suitable road infrastructure.
- Government should invest in an independent regulator, frame laws to govern them and ensure fair play.
- It should also need to work on improving education to the masses to tap these opportunities.

10. INFRASTRUCTURE

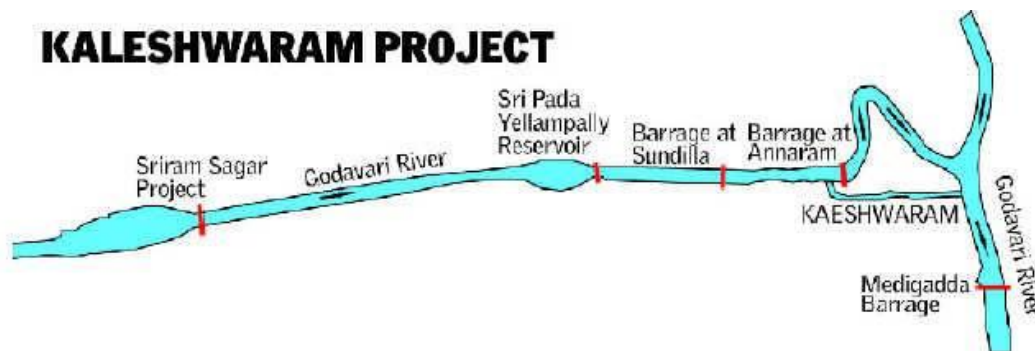
10.1 Kaleshwaram Lift Irrigation Project (KLIP)

What is the issue?

The execution of the Kaleshwaram Lift Irrigation Project (KLIP) is very significant for Telangana.

What is Lift irrigation?

- When the main source is at the lower level than the supply level, then water cannot be transported by natural flow.
- So when water is supplied through some mechanical means, then it is known as lift irrigation.
- Pumps are used to lift the water from canals or rivers at lower level to the area at higher level for irrigation purpose.



What is Kaleshwaram project?

- In 2007, when Andhra Pradesh was not divided Pranhitha-Chevella Lift Irrigation Scheme taken up to utilise the water of Pranhita tributary of Godavari river.
- After the formation of Telangana in 2014, the present government redesigned the project.
- The reason they stated for doing it was that the original plan had too many environmental obstacles and had very low water storage provision.
- After conducting **Light Detection and Ranging (LiDAR) survey**, the government separated the project into two.
- The original component serving the Adilabad area was called the Pranhitha project.
- The rest was renamed as Kaleshwaram by redesigning the head works, storage capacity and the canal system.
- The Kaleshwaram project has provision for the storage of about 148 tmcft with plans of utilising 180 tmcft by lifting at least 2 tmcft water every day for 90 flood days.

Why it is important?

- It has the longest tunnel to carry water in Asia - 81 km between the Yellampally barrage and the Mallannasagar reservoir.
- It has the estimated cost of ₹ 80,500 crore, the costliest irrigation project to be taken up by any State.
- The project is designed to irrigate around 7.4 lakh hectares lands.

What are the problems?

- The project requires a total of 32,000 hectares.
- A section of farmers have been opposing the land acquisition.
- Also it needs various clearances and permissions simultaneously from the Union Ministry of Environment and Forest and the Central Water Commission.

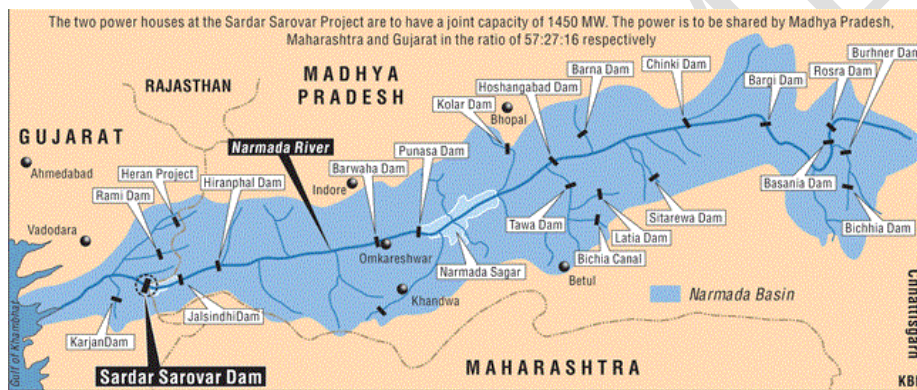
10.2 Rising the Height of Sardar Sarovar's Dam

Why in news?

The Narmada Control Authority recently decided to raise the height of the Sardar Sarovar dam to its full height, by ordering the closure of 30 gates.

What will be the impact?

- The dam will generate hydro-energy, extend irrigation and bring drinking water to drought-affected, arid areas of Rajasthan and Gujarat.
- Once the dam is at its full height, it will submerge one town and at least 176 villages.
- This might displace close to 20,000 families and deprive them of flood productive agricultural land, and destroy hundreds of acres of biodiverse forest.
- Ecologists, hydrologists and engineers have also produced detailed documentation that brings into doubt the claims of water provisioning, economic growth and safety made by the project.



What are the challenges?

- **Siltation** - It is one of the biggest challenges faced by dams worldwide, and constitutes one of the biggest challenges to the long-term success of this dam.
- Apart from directly reducing water storage capacity, siltation also decreases water capacity due to increased evaporation loss.
- As a result, the capacity to generate hydropower is affected.
- A dam choked with silt creates a river prone to risky situations of potential flooding in the backwaters.
- **Erosion** - The steep slopes of the Narmada valley are prone to erosion.
- They have been protected so far because of the dense forests that line the sides of the valley.
- If these trees are cleared, soil from the denuded slopes will flow unchecked into the river, turning the water muddy.
- **Biodiversity** - The Narmada valley is one of the most fertile ecosystems in India, brimming with biodiversity, and with abundant fish, birds and trees.
- Blocking normal water flow, leading to downstream habitat change and impacting biodiversity.
- The Narmada estuary, where the river meets the sea, has become increasingly saline because of the decrease in fresh water flow after the dams came up.

- Fish catch of some species has now declined by as much as 75%.
- **Rehabilitation** - Compensation to the displaced has often come in the form of land unsuitable for farming or living, located either on riverbeds at the risk of flooding, or in rocky areas which cannot be ploughed.
- Resettlement sites lack basic facilities like wells, drinking water pipelines, or grazing land for cattle, let alone schools or road facilities.
- This leaves the once self-reliant people of the valley with no option but to work as daily wage labour and crowd into urban slums.

What should be done?

There has to be a clear, transparent public accounting of livelihoods lost and jobs created, of profits accrued at the expense of great misery and injustice.

10.3 Cost effective Metro rails

Why in news?

Foreign investment has been invited for metro rail projects and 50 cities in India are ready to implement metro rail projects.

What is the need for metro rail?

- For faster connectivity of the nodal points in the cities.
- To Reduce the traffic drastically.
- To provide safer public transports.
- To make public transport more environment friendly.

What are the advantages of metro rails?

- Efficient in high traffic routes.
- Can make use of underground routes.
- Reduced pollution when compared to bus trips.
- Long lasting.

What are the cost factors of metro rails?

- Metro rails are hugely expensive to build.
- A kilometre of metro rail requires an investment of around ₹ 200 crores.
- Buses, which require under 5 per cent of the investment needed for metro rail can carry 40 per cent more passengers.

How metro rails can be made cost effective?

- Connectivity to the metro rail stations need to be planned properly.
- The low occupancy should go up and cost per passenger trip should go down.
- For cost of a metro rail to slowly become affordable, it should keep growing.

- Funding should be drawn from foreign and indigenous agencies.
- Metro rails need not remain a high tech, but can be made cost effective and reliable.
- The success of metro rail lies on involvement of multi modes of transport.

10.4 Open Acreage Licensing Policy

Why in news?

The government has replaced the New Exploration and Licensing Policy (NELP) with the Open Acreage Licensing Policy (OALP).

What is Open Acreage Licensing?

- OALP gives an option to a company to **select the exploration blocks on its own**, without waiting for the formal bid round from the Government.
- Under OALP, a bidder intending to explore hydrocarbons may apply to the Government seeking exploration of any new block which was not already covered by exploration.
- The Government will examine the interest and if it is suitable for award, then the govt will call for competitive bids after obtaining necessary environmental and other clearances.
- OALP was introduced as part of the new fiscal regime in exploration sector called Hydrocarbon Exploration and Licensing Policy (HELP).
- So that, it will enable a **faster survey and coverage** of the available geographical area which has potential for oil and gas discovery.
- Successful implementation of OALP requires building of National Data Repository on geo-scientific data.

What are the positives of OALP over NELP?

- By placing **greater discretion** in the hands of explorers and operators, the OALP attempts to address a major drawback in the NELP that forced energy explorers to bid for blocks chosen by the government.
- Companies can now apply for particular areas they think is attractive to invest in, because in the past, the blocks chosen by the government often had only a small fraction of hydrocarbon reserves.
- By offering companies the freedom to choose exactly the areas they want to explore, and their size, the government has a better chance to woo serious energy investors.
- The govt also introduced **National Data Repository (NDR)**.
- It is envisaged as a centralised database of geological and hydrocarbon information that will be available to all.
- It will allow potential investors to make informed decisions and **will open up a new sector in India**.
- There are a number of companies that simply explore hydrocarbon basins and sell the information they gather. Thus via NDR, the govt seeks to incentivise such prospectors.
- Companies may also submit applications through the year and not just at designated and often infrequent points, as was the case earlier.
- Also, from now on, the auctions will be held twice a year. This, will lend more flexibility to the industry.

What are the concerns with OALP?

- The policy awards an extra five points to bidders for an acreage if they have already invested in the exploration and development of that area.
- But, it is highly doubtful **if this is an acceptable incentive**, since the investment needed to simply explore is significant.
- Also, **no such preference is given to mineral explorers** while auctioning mining rights.
- Instead, a revenue-share from mining operations is their recompense for exploration efforts.
- Another concern is **whether India can attract enough investment** to meet the government's objective of reducing oil imports by 10% by 2022, since there are already proven reserves in other parts of the world.

10.5 HAM Project

Why in news?

Transport ministry is promoting the Hybrid-Annuity Model or HAM

What is HAM?

- HAM is a mix of the **Engineering, Procurement and Construction (EPC)** and **Build, Operate, Transfer(BOT)** models.
- HAM combines 40% EPC and 60% BOT-Annuity.
- It was introduced in January 2016 to recover investments in road infrastructure projects
- About 30 highways projects have been awarded under HAM by the National Highway Authority of India (NHAI).

How does it work?

- Under the EPC model, NHAI pays private players to lay roads.
- The private player has no role in the road's ownership, toll collection or maintenance.
- Under the BOT model, private players have an active role.
- They build, operate and maintain the road for a specified number of years, before transferring the asset back to the government.
- The toll revenue collection arrangement is known as BOT-Annuity.
- Essentially, the toll revenue risk is taken by the government, while the private player is paid a pre-fixed annuity for construction and maintenance of roads.

What is its significance?

- It helped to have a better financial mechanism for road development.
- It is a good trade-off, spreading the risk between developers and the Government.
- This helps cut the overall debt and improves project returns.
- The annuity payment structure means that the developers aren't taking 'traffic risk', that is they are not depending on the toll traffic alone for their returns.

- From the Government's perspective, it gets an opportunity to flag off road projects by investing a portion of the project cost.

10.6 Issues with Vizhinjam port

What is the issue?

CAG made observations on Vizhinjam port, Kerala.

What are the types of ports?

- Based on the nature of the cargo handled, ports are classified into two:
- Gateway ports - They largely depend on its export/import cargo originating from or destined to its hinterland.
- Transshipment ports - A transfer of cargo takes place from a mother ship to a daughter ship in these ports.

What are the issues with Transshipment ports?

- Across the world transshipment ports face an uncertain future.
- The most well established transshipment ports such as Singapore, Hong Kong, Malaysia are losing traffic volumes heavily.
- Major Container Lines are either cancelling or postponing the delivery of ultra large container vessels already ordered.
- This would mean less number of mother vessels in service and consequent decline in transshipment volumes.



What is the significance of Vizhinjam port?

- Vizhinjam is a port under construction by the Arabian Sea at Trivandrum in India.
- There are three phases, with a view to catering to passenger, container and other clean cargo.
- Vizhinjam is proposed to be a transshipment port.

What are the issues with Vizhinjam port?

- Vizhinjam is financially not viable even with a significant financial participation of the Kerala government.
- The container transshipment terminal at Vizhinjam has high global competition.

- Colombo which is situated just 202 nautical miles from Vizhinjam is now the 25th largest container port in the world,
- By the time Vizhinjam becomes operational in 2019, Colombo port will be in more developed because of the Chinese investments.
- Vizhinjam did not attract port investors mainly because of the heavy risks involved in the transshipment business.

What are the observations made by CAG?

- In major ports that normal concession for PPP projects is for 30 years, but in Vizhinjam it is 40 years with an extension of 20 years.
- There are hypothetical calculations of revenues from the project, which are based on business projections.
- The CAG says in the investment about 67 per cent of the costs is borne by the State and only 33 per cent by AdaniPorts, this is a high bill for the state.
- In Vizhinjam, the State is building breakwaters: a very important item of port infrastructure in addition to providing road and rail connectivity, power, water supply, acquisition of land and back up area to make the port an attractive destination for investment.
- The operations will be taken up by the private firms, which makes the delivery of public service by the ports questionable.

10.7 CAG Report on Indian Railways

Why in news?

CAG has recently released a report revealing that there are major lapses in Indian Railways catering services.

What are the highlights of the report?

- Articles unsuitable for human consumption, contaminated food stuffs were offered for sale in the railway stations.
- No reduction in the number of complaints over the years and the major complaints was related to overcharging and quality issues.
- Unauthorised vendors were operating in platforms and trains.
- Unfair practices were being followed in the execution of catering services at stations and trains.
- Hygiene was greatly compromised. The food and water sold at the railway stations and trains are unfit for human consumption.

What are the factors behind these unhygienic practices?

- In its report, CAG held that the Policy shifts in catering are mainly responsible for this mess in catering services.
- Even the new catering policy launched recently is not clear on how zonal railways will be held accountable.
- In 2005, the Railways gave all catering contracts to IRCTC, its PSU, but took it back in 2010. It gave the contract back to IRCTC under the new policy this year.

11. AGRICULTURE

11.1 e-NAM Initiative

What is the issue?

e-NAM is expected to solve the problems surrounding agrarian output market.

What are the existing problems in farmers market?

- Competition in labour, input prices are increasing.
- Market domination by organised traders.
- Friction between inefficient markets for agri-output and efficient markets for their inputs.
- Farmers must buy and sell only in the government-designated Agricultural Produce Marketing Committee (APMC) market-yards.

What is the e-NAM?

- The electronic National Agriculture Market (e-NAM) platform seeks to create a common national market, for enhancing farmers' access to buyers.
- It will make price discovery and trading transparent.
- So far, 417 mandis in 13 states have joined the e-NAM platform
- There is a target of connecting 585 mandis with e-NAM by March 31, 2018.

What are the advantages of e-NAM?

- Transparent and robust electronic physical markets.
- Greater standardisation and quality awareness.
- Easier access of buyers by the producers.
- Reduced price of products due to reduced costs of intermediation.
- Open market and competitive price fixing is possible.
- Easier taxation of agricultural income.

How effectively e-NAM can be implemented?

- With wide participation and perfect sync between markets and stakeholders e-NAM can be successful.
- e-NAM authorities can work to encourage farmers to produce better quality crop and meeting exchange standards.
- Price distribution alerts through mobile phones could serve as a reliable reference price for farmers.
- Monitoring the warehouses for the incoming and outgoing stocks will make the initiative stronger.
- The profiles of the farmers linked with e-NAM can be used for credibility reports by financial institutions.
- Indian agriculture needs robust and transparent institutions for e-NAM to deliver long-term benefits.

11.2 Fertilizer Subsidy in India

What is the issue?

There is a delay in the implementation of a new system of disbursement of fertiliser subsidy by the present government.

What is fertiliser subsidy?

- Fertilizer subsidy is the difference between the holding price of fertilizers and the price at which fertilizers are made available to consumers.
- For sustained agricultural growth and to promote balanced nutrient application, the fertilizers are made available to farmers at affordable prices.
- Financial support is also given on both indigenous and imported urea.

How fertiliser subsidy is provided in India?

- At present, subsidies are paid to fertilizer companies on the basis of receipt of fertilizer at identified godowns in districts.
- India has decided implement new subsidy reforms across the country from June
- Fertilizer subsidies would be transferred to manufacturers on the basis of actual sales.
- With the new system, a PoS machine would be installed in every fertiliser godowns.
- It capture the buyer's identity based on Aadhaar biometric authentication, with the quantities purchased.
- This move which will pave the way for implementation of the direct benefit transfer (DBT) system.

What are the issues with older system?

- The Subsidies were not exactly received by the farmers, it benefited the fertilizer companies.
- The beneficiaries have been the large farmers and not small & marginal farmers.
- Distorted subsidy regime, depleted the NPK use ratio (Nitrogen, Phosphorus, Potassium), the normally accepted ratio is 4:2:1.

What are the advantages of the new system?

- The data generated from PoS machine sales would make it possible to both weed out non-farmers.
- It restrict the subsidy to a maximum of 30-35 bags of all fertilisers per farmer.
- This will automatically cover all small and marginal farmers.
- The subsidy is directly credited into Aadhaar-seeded bank accounts of the farmers.

What is the reason for the delay of the new system?

- The official reason for not going ahead in the current Kharif season, as earlier planned, has been the lack of availability of the PoS devices.
- They have been installed in only half of the country's nearly 2 lakh fertiliser retail points
- Technical malfunctions in their integration with the central server that may have to track over 50 crore transactions.

- There are issues of network connectivity in remote rural areas.

11.3 US- FDA (Food and Drug Administration)'s Form 483

Why in news?

Issuance of Form 483 observations, warning letters and import alerts from the FDA poses a key risk for Indian pharma companies exporting drugs to US.

What FDA does?

- The FDA exercises authority for inspections of facilities in foreign countries which supply pharma products to the US.
- So, pharma plants in India that export to the US must adhere to the **cGMP (current good manufacturing practices)** as per FDA guidelines.
- FDA officials often visit the facilities to check compliance with the rules.
- FDA issues Form 483 at the completion of inspection.

What is Form 483?

- If FDA finds deviations from cGMP, it is mentioned in the Form 483.
- The form specifies areas in which the facility fell short of regulatory expectations.
- It is then presented and discussed with the management of the company.
- Along with the Form 483, the FDA also issues **an Establishment Inspection Report (EIR)** which specifies whether action is required to be taken.

What will happen then?

- The FDA calls for a response to the Form 483 observations within 15 working days.
- Though a written response is not mandatory, it is preferred so that a warning letter can be avoided.
- The company has to respond to the observations in detail with reasons for the shortcomings and corrective action plans.
- If the management does not convincingly address the Form 483 observations within the specified time period, the FDA issues a warning letter.
- Sometimes, if the observations are of a severe nature, the FDA may issue a warning letter even without issuing Form 483.
- Unsatisfactory response to the warning letter could lead to further action including import alert for products or the facility, withholding of product approval, and suspension or cancellation of manufacturing license.

Why is it important?

- The USA is the major market for several Indian pharma companies.
- Indian companies have become dominant players in the US generic drugs space.
- But over the past few years, there has been an increase in the issue of Form 483s which further led to warning letters.

- Over the past four years, **India received the highest number of warning letters** issued to a single country.
- Also, the number of warning letters received by Indian companies has increased over these years.
- The timeline for problem redressal and re-inspections have also lengthened.
- If the regulatory crackdown continues, it could put a question mark on the growth story of many such companies.
- Quick, satisfactory redressal of Form 483 observations is therefore important to stop further escalations to warning letters and more.

Why should we care?

- If we have invested in pharma stocks, it makes sense to keep a close watch on FDA inspections and outcomes.
- Many pharma stocks have been negatively impacted in the recent past due to adverse Form 483 observations and their escalations into warning letters and import alerts.
- On the other hand, getting FDA clearances after re-inspection of facilities have seen pharma stocks rally sharply.

11.4 PM FasalBimaYojana

Why in news?

CAG in its recent report has spotted huge gaps in PradhanMantriFasalBimaYojana and other crop insurance schemes.

What are the shortcomings in implementation?

- While PMFBY's success is due to the very low premium the farmer pays, the problem lies in the fact that the **assessment methods** haven't really changed.
- Due to **poor implementation** of the crop insurance scheme from the period 2011 to 2016, a huge sum was released to private insurers without proper verification of the beneficiaries.
- Insurance companies raked in a huge profit due to **low claim** reported in relation to the premium charged.
- One of the reasons for low claim settlement in relation to premium collected is **delay** in states releasing their share of the subsidy.
- Claims must be paid to farmers within three weeks of yield data by insurance companies, while on ground, claims made for Kharif 2016 were still not fully settled.
- Claim settlement is delayed when states don't share their portion of subsidy or don't complete crop cutting exercises (CCE), or Centre doesn't release its share of subsidy.
- The **value of the crop** is based on the average yields of the last three years—to that extent, in an area where yields are growing, or for farmers who have higher yields, the sum insured doesn't represent the real value.
- Most districts tend to have just one or two notified crops, so most vegetables/fruit tend to be uninsured if they are not the major crop of the district.

What is the way forward?

- PMFBY is a success given how the number of farmers covered is up by 1 crore and the amount insured nearly doubled in the latest season.

- It is important to use technology to reap its benefits.
- Latest CAG report has highlighted delays in processing claims. Moving to modern methods like drones, satellite imagery and water-logging stations is required.

PradhanMantriFasalBimaYojana

- The PradhanMantriFasalBimaYojana (Prime Minister's Crop Insurance Scheme) was launched in 2016.
- It envisages a uniform premium of only 2 per cent to be paid by farmers for Kharif crops and 1.5 per cent for Rabi crops. The premium for annual commercial and horticultural crops will be 5 per cent.

11.5 Amazon's Entry into Food Retailing

Why in news?

- Amazon.com Inc has secured approval to stock and sell food and groceries in India.
- It is the first under the policy allowing 100% foreign direct investment (FDI) in food retail chains.

What is India's FDI Policy?

- FDI is an investment made by a company or individual in one country in business interests in another country.
- FDI are distinguished from portfolio investments (FII) in which an investor merely purchases equities of foreign-based companies.
- In 2015 **India overtook China and the US** as the top destination for the FDI.
- There are two routes by which India gets FDI.
- **Automatic route** - By this route FDI is allowed without prior approval by Government or Reserve Bank of India.
- **Government route** - Prior approval by government is needed via this route.
- The government currently allows 100% FDI in the food retail business.

What are the implications of the current move?

- The government's approval for Amazon could be a good opportunity to scrap the confusing conditions that prevail in the retail investment policy.
- Big-ticket retail FDI has the potential to **significantly expand the market for goods and services**.
- FDI inflow comes with the latest technologies, products and processes.
- A food store would generally prefer to have a **tie-up with a group of farmers** to pick up their produce as it ensures them steady and quality supply while ensuring they have control on the prices.

11.6 Ailing Indian tea industry

Why in news?

Sri Lanka is commemorating the 150th anniversary of its tea industry.

What is its condition?

- Sri Lankan tea industry accounts for 5% of world output.
- It is among the world's top five exporters of the agro-commodity.
- It supports 20% of the country's population through direct and indirect employment.
- The celebration in Sri Lanka draws attention to the present state of affairs in the Indian tea industry.

What are the problems in Indian tea industry?

- Tea exports from India dropped for the second consecutive year.
- Tea quality has become an issue and this is reflected in depressed prices.
- Big companies are exiting the industry.
- Increased pressure in the wake of increased costs amid decreased earnings worries the remaining few companies.
- The issues of absenteeism as well as worker migration affect the growth of the industry.
- Political shutdown in Darjeeling (amidst demand for separate land), one of the major players in the Indian Tea industry, adds to the worsening effect.
- This could result in foreign exchange losses to the country.
- It could also affect the global brand equity of Darjeeling tea in the global market.

What should be done?

- Efforts to promote tea industry as an export-oriented industry.
- Making presence in export markets in strife-torn countries like Syria where India is absent.
- Materialising every opportunity to expose the tea industry to a world.

11.7 Centre on GM mustard crop**Why in news?**

Indian government don't have any policy decision on the commercial release of Genetically Modified (GM) mustard crop.

Why GM mustard is opposed?

- Hybrids are normally obtained by crossing two genetically diverse plants from the same species, but there is no natural hybridisation system in mustard.
- The new technology for GM mustard has used a "Barnase" gene isolated from a soil bacterium.
- The resultant hybrid mustard plant will be high-yielding.
- This incorporation of alien genes led to the opposition.
- This same technology has been used in GM cotton.

- The opponents of GM mustard point out that cotton is not a food crop, while mustard is India's largest edible oil-yielding crop.

What is the status of commercial release of GM Mustard?

- The apex court had on October 17 last year gave the stay on the commercial release of GM mustard crop until further orders.
- The court had asked the Centre to seek public opinion on such seeds before releasing it for cultivation purposes, even as government approval is awaited.
- Recently, the Union government informed the Supreme Court that it has no policy decisions on GM mustard.

Why SC demands for a well-informed view on GM mustard?

- Mustard is one of India's most important winter crops, which is sown between mid-October and late-November.
- The government sowing the seeds in various fields and the bio-safety dossier has to be put on the website, which has not been done yet.
- The field trials were being carried out by the government without conducting the relevant tests.
- The contamination of germ plasm will happen with mustard HT (Herbicide Tolerant) DMH 11, it will be irreparable and irreversible making our food toxic at the molecular level without recourse.
- A Technical Expert Committee (TEC) report has pointed out that the entire regulatory system on GM mustard is a mess and a 10-year suspension should be given.

12. SCIENCE & TECHNOLOGY

12.1 Role of Biomarkers in Dengue

Why in news?

Mumbai based study on dengue found that biomarkers can help to curb deaths caused by the disease.

What are biomarkers and how it is used?

- Biomarkers are indicators that help in determining the presence or severity of a disease.
- The idea is to establish molecular signatures for complicated cases.
- It is used to have a sound knowledge of the disease progression in different individuals suffering from the disease.

What are the characteristics of Dengue?

- It is spread through the bite of an infected female Aedes Aegyptus mosquito.
- Dengue Haemorrhagic Fever (DHF) can lead to lethal complications.
- DHF in its severe form causes Dengue Shock Syndrome (DSS).
- DSS is associated with very high mortality rate as the blood pressure drops down drastically and organs start to collapse.

What is the status of dengue in India?

- The first evidence of occurrence of dengue in India was reported in 1956 from Vellore district in Tamil Nadu.
- A disease that was known for its presence only in urban areas gradually spread across the country.
- According to the National Vector Borne Disease Control Programme (NVBDCP) In 2016, the number of cases were 1,29,166 and 245 deaths.

What are the outcomes of the study?

- The study collected about 100 to 150 samples of which half will be of dengue patients who required ICU admission.
- Not all dengue cases develop in DHF or DSS.
- The study aims to identify a panel of protein biomarkers that can find the answers and help in prediction of severity of the disease.
- The aim is to eventually develop a diagnostic kit to avoid severe disease progression.
- If a predictive test comes in place, it will be a game changer.
- Knowing well in advance how a disease will progress will bring down unnecessary hospitalisations.

12.2 New study on Blood cancer**Why in news?**

A Study at DNA Fingerprinting and Diagnostics, Hyderabad has come up with new insights on Leukemia.

What is Leukemia?

- Leukemia is cancer of the blood or bone marrow which produces blood cells.
- A person who has leukemia suffers from an abnormal production of blood cells.
- Acute leukemia crowds out the good cells more quickly than chronic leukemia.
- Treatment requires holistic approach of financial support, psychological support and a patient tracking system.

What is the status of leukemia in India?

- Acute leukemia cases are recorded across India.
- There are nearly 25,000 children diagnosed with cancer in India every year and around 9000 of these have leukemia.
- There would be 90,000 children with leukemia in a decade in India.
- The data of those children who are treated are missing.

What are the findings of the study?

- Mixed Lineage Leukemia (MLL) protein is closely associated with leukemia (blood cancer) in children and adults.
- The protein plays a crucial role in cell division by regulating chromosome segregation.

- The absence of MLL itself gives rise to genomic instability and makes the cell prone to cancer.
- Efforts has been made to discover the essential cellular functions of MLL.
- Kinesin 'motor' protein Kif2AK is responsible for organizing MLL cells and associated with several kinds of cancers.

What is the way forward?

- The study helps in clear understanding the blood cancer.
- The genome editing techniques can be carried out with a wide knowledge of MLL protein cells.
- These breakthrough findings will help the Indian pharma sector to introduce new life saving drugs.

DNA fingerprinting

- DNA fingerprinting is a method used to identify an individual from a sample of DNA by looking at unique patterns in their DNA.
- DNA fingerprinting was to extract DNA from a sample of human material, usually blood.
- This technology is globally used in solving the crimes.

12.3 Role of Aerosols in Indian Monsoon

Why in news?

Researchers from Indian Institute of Tropical Meteorology, Pune, think that aerosols may be weakening the rainy season.

What is an Aerosol?

- Aerosols are minute particles suspended in the atmosphere.
- When these particles are sufficiently large, we notice their presence as they scatter and absorb sunlight.
- Their scattering of sunlight can reduce visibility (haze) and redden sunrises and sunsets.
- Aerosols are **short-lived**, unlike greenhouse gases that persist and accumulate in the atmosphere for longer period.
- The bulk of aerosols — **about 90% by mass have natural origins**. Ex: Volcanoes.
- The remaining 10% of aerosols are considered anthropogenic, or human-made, and they come from a variety of sources.
- **Automobiles, incinerators, smelters, and power plants** are prolific producers of sulfates, nitrates, black carbon, and other particles.
- Deforestation, overgrazing, drought, and excessive irrigation can alter the land surface, increasing the rate at which dust aerosols enter the atmosphere.

What are the direct effects of Aerosols?

- Aerosols interact both directly and indirectly with the Earth's radiation budget and climate.

- Different aerosols scatter or absorb sunlight to varying degrees, depending on their physical properties. Although **most aerosols reflect sunlight, some also absorb it.**
- Aerosol's effect on light depends primarily on the composition and color of the particles.
- Pure sulfates and nitrates reflect nearly all radiation they encounter, cooling the atmosphere.
- Black carbon absorbs radiation readily, warming the atmosphere but also shading the surface.
- Brown carbon or organic matter has a warming influence on the atmosphere depending on the brightness of the underlying ground.
- Salt particles tend to reflect all the sunlight they encounter.
- In addition to scattering or absorbing radiation, **aerosols can alter the reflectivity, or albedo,** of the planet.

What are the indirect effects of Aerosols?

- As an indirect effect, aerosols in the lower atmosphere can **modify the size of cloud particles**, changing how the clouds reflect and absorb sunlight, thereby affecting the Earth's energy budget.
- Aerosols also can act as sites for chemical reactions to take place.
- The most significant of these reactions are those that **lead to the destruction of stratospheric ozone.**
- On a global scale, these aerosol "indirect effects" typically work in opposition to greenhouse gases and cause cooling.
- Broadly speaking, aerosols are thought to suppress precipitation because the particles decrease the size of water droplets in clouds.

What did the IITM Pune study say?

- A study by IIT Kanpur that came out in April, previously found that higher aerosol loading results in delayed but more rainfall over Central and Northern India.
- But, this recent research by IITM Pune focusses on **effect of aerosols on Indian monsoon.**
- Monsoon is weakening over the last 50 years. The recent research report that a mix of GHGs, aerosols and changes in forest and agricultural cover was affecting the strength of the monsoon.
- Their computer simulations suggest that aerosols may be a far more important factor than GHGs and it is the **major cause of weakening of the monsoon.**
- A good monsoon is produced by the difference in temperature between land and sea.
- But, the dust clouds shield the earth from the sun's rays, depressing land and sea temperatures and reducing the variation between the two.
- Because of this, the Indian monsoon is getting weakened by aerosol accumulation.

13. ENVIRONMENT

13.1 NGT order to save Ganga

Why in news?

National Green Tribunal (NGT) gave its directions to a PIL petition of which was transferred to the NGT from the Supreme Court in 2014.

What the NGT mandates?

- An area of 100 metres from the edge of the Ganga between Haridwar and Unnao has been declared a 'No Development Zone'.
- Till the demarcation of floodplains and identification of permissible and non-permissible activities by the State government, the 'No Development Zone' is to be followed.
- All industrial units in the catchment areas of the Ganga should be stopped from indiscriminate groundwater extraction.
- Mechanical mining will be banned.
- Dumping of waste within 500 metres of the river is prohibited.
- Rs. 50,000 fine will be imposed on anyone dumping waste in the river.
- It also directed the Uttar Pradesh and Uttarakhand governments to formulate guidelines for religious activities on the ghats of the Ganga and its tributaries.
- Tanneries from Jajmau in Kanpur should be shifted to leather parks in Unnao within a period of six weeks.
- A supervisory committee was appointed to oversee implementation of the directions passed in its verdict.

Assam Floods

What is the issue?

In Assam, floods have claimed more than 50 lives, nearly 18 lakh have been affected by it and most of the Kaziranga National Park was submerged.

How vulnerable is Assam?

- According to the **National Flood Commission of India (NFCI)**, about 40% of the state's area is flood-prone.
- The floods caused by the release of water in the Brahmaputra's upstream have become a common monsoon bane in Assam.
- **Human-made factors** have compounded this annual problem.
- After the North East Electric Power Corporation opened up its dams to release water from the Ranganadi Hydro-electric Project, the problems have compounded.

Why the problem still persists?

- Brahmaputra changes course frequently. So it is virtually impossible to contain the river within the embankments.
- Lack of proper policy formulation and implementation.

- Increasing instance of human encroachments.
- Even within Assam, agencies which should be working together to keep the floods in check, have operated along different lines.

What are the advantages of floods?

- Floods play an important role in maintaining key ecosystem functions and biodiversity.
- They link the river with the land surrounding it, fill wetlands, increase the connectivity between aquatic habitats, and move both sediment and nutrients around the landscape.
- For many species, floods trigger breeding events, migration, and dispersal. These natural systems are resilient to the effects of floods.
- Apart from the environmental benefits, flooding also helps the economy through increased agricultural and fish production, recharge of groundwater resources etc..

Is flooding a bizarre event in Kaziranga?

- The Kaziranga national park primarily consists of alluvial grasslands, woodlands, tropical moist mixed deciduous forest, and tropical semi-evergreen forest.
- It is basically a flood plain.
- Floods are the primary means by which it keeps its own health alive and that of the animals that inhabits it.
- Not having floods or stopping them will have disastrous effect on the park and its inhabitants.
- All wildlife are known to deal with the floods from time immemorial.

What constitutes to the unnatural death of animals?

- The main problem is the human encroachment on the flood plains.
- Wild animals tend to move to high grounds at the time of floods, but these high grounds surrounding the park are obstructed by land mafias.
- The animals attempted to reach the hills of KarbiAnglong by crossing the highway.
- This led to death of many by collisions with speeding vehicles on the highway that passes alongside Kaziranga.
- Many animals are killed by the opportunistic killing of those who come across these stranded migrating animals, mainly for their meat.

13.2 Receding Ice Shelf

Why in news?

A trillion-ton iceberg from the Larsen C Ice Shelf is being disintegrated into smaller icebergs in Antarctica.

What the Project MIDAS says?

- It is a U.K.-based Antarctic research project that has been looking at the ice shelf for many years
- Scientists from Project MIDAS have said the formation of icebergs is natural.
- And there seems no link to human-induced climate change was available in this case.

- Yet, the impact of such a loss on the stability of the ice shelf itself may not be good.

What are the impacts?

- The disintegrated icebergs and glaciers melts and flow into the nearby seas and oceans.
- It contributes to sea level rise, possibly at a slow rate.
- It highlights the need to stop continued warming of the planet from man-made carbon emissions.

What is the importance of Antarctica?

- Antarctica is a climate stabilising factor.
- Except for man-made causes, there was no anticipated factor in the natural geological cycle that would disturb Antarctica.
- The separation of an iceberg from the ice shelf shows the importance of such alarms.
- Species like emperor penguins which depend on sea ice to complete their life cycle are at risk if ice cover declines.
- Any dramatic changes will only add to the worry of irreversible effects of climate change, given that the Arctic and Greenland have also been losing ice cover.

What is the way ahead?

- The last pristine continent should be left well alone, with a minimum of human interference.
- At the same time research efforts are intensified to study the impact of human activities in the rest of the world on this wilderness.

13.3 Rising danger of plastics

What is the issue?

- UN Environment Programme's Clean Seas Campaign called for a global ban on microbeads in personal care products.
- In India, recently The Bureau of Indian Standards (BIS) has classified microbeads as “unsafe” for use in cosmetic products.
- Increasing use of plastics and especially micro-plastics is developing into a major cause of concern for the environment.
- It is also getting dangerous as plastics are making way into the food chains of even birds, animals and fishes.

What are microbeads?

- Microbeads are **smaller forms of plastic**, no greater in size than 5 mm.
- Microbeads are added as an exfoliating agent to cosmetics and personal care products, such as soap, facial scrub and toothpastes.



- Microplastic sources also include breakdown of discarded bags and plastic packaging, particles from vehicle tyres, synthetic fibres from textiles, etc.

What are the concerns?

- Microbeads escape the filtration and treatment processes for waste water and end up in sites of nature.
- This is resulting in significant global impacts on wildlife from marine environment pollution.
- World's coastal countries currently do not have the concerned recycling policies nor the technical capabilities, and so large quantities of plastic are not recycled and enter landfill.
- The durable properties of plastics make them persistent and slow to degrade in the environment entering the food chains.

What are the desired actions?

- Regulations on use of plastics in general and microplastics in particular should be put in place by the government.
- Alternatives should be found to tackle with rising consumerism and the increasing use of plastic in everyday life.
- Invention of new, more readily degradable bio-based materials for the plastics could be a way.
- The entire flow chain from manufacturer to the user to the waste collector and the recycling authority should be made aware of the risks.

13.4 Threat to Wetlands - Ennore Case Study

What is the issue?

- Recently the TN government conceded the Government of India-owned Kamarajar Port Ltd's (KPL) request to divert 1,000 acres of the hydrologically sensitive Ennore wetlands for industrial installations that are best built on dry land.
- The proposal is pending Central government clearance.

How significant is Ennore creek to Chennai?

- Ennore creek is a backwater located in Ennore, Chennai along the Coromandel Coast.
- It buffers the rich aquifers of the Araniyar-Kosasthalaiyar Basin from the sea.

- Located squarely in the intervening floodplains of three rivers on a high-energy coastline, Chennai is a disaster-prone location.
- Wetlands like the Ennore creek function more as shock absorbers in times of such disasters.
- This wetland's importance may not be apparent as much of the creek looks dry all the year-round.
- However, when cyclonic weather pushes the sea water landwards, or when rain waters from the two rivers drain into the sea, the creek swells to its full capacity.
- The presence of the creek prevents many parts of the city from flooding.
- It keeps salt water from invading the groundwater resources that supply huge volumes of drinking water to the Chennai city.

What are recent threats to the creek?

- In 1996, the Tamil Nadu government protected a 6,500-acre stretch of the tidal water body under the Coastal Regulation Zone (CRZ) Notification.
- However more than 1,000 acres of the creek were lost to **illegal encroachments**.
- These installations block the path of rain waters. e.g Areas that never got flooded saw waters enter homes during the 2015 Chennai floods
- If plans to fill the creek persist, the precious freshwater aquifer that Chennai draws from will be lost to salt.
- The governments are only targeting encroachments by the vulnerable poor people as a remedy rather than controlling the illegal constructions of the elite.
- It is the need of the hour to balance environmental concerns and development issues, and take appropriate policy decisions.

13.5 Future of Electric Cars

Why in news?

- Britain recently decided to outlaw the sale of new diesel and petrol cars and vans from 2040 in a bid to cut air pollution.
- French government also made a similar proposal to ban petrol and diesel cars, including hybrid vehicles that have an electric motor and a petrol or diesel engine.

What are the challenges?

- In the UK, demand for diesel cars dropped 10% in the second quarter of this year.
- People like the idea of reducing their carbon footprint, as well as electric cars' fast acceleration and noiselessness.
- But there are several challenges.
- No more than 10% of those who consider an electric vehicle actually buy one.
- There are the longer-term questions of whether the charging infrastructure will keep up with the number of vehicles, and availability of electrical grids.

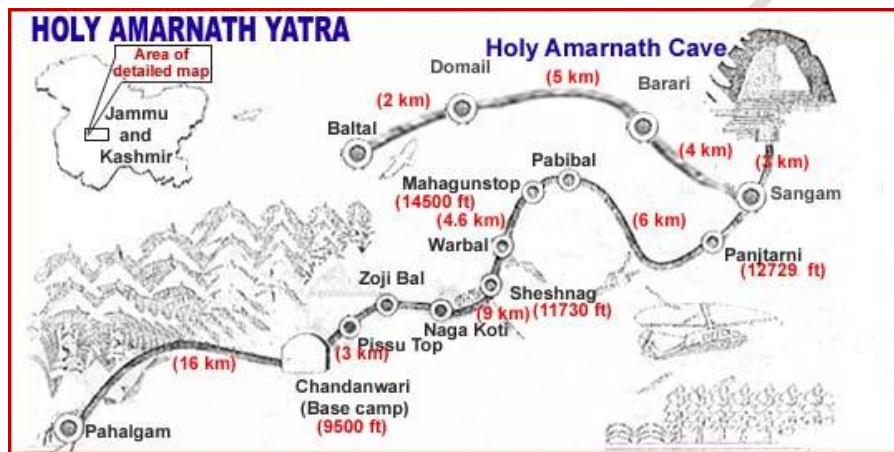
- Financial incentives can help by bringing electric-car prices close to those of traditional vehicles but they're not enough for a breakthrough.
- Only countries such as Norway, where the incentives make electric vehicles appreciably cheaper to buy and own, have seen significant uptake.
- Governments are rightly hesitant to force something on consumers that doesn't really work for them.

14. INTERNAL SECURITY

14.1 Amarnath Yatra Attack

Why in news?

Terrorist recently attacked pilgrims on Amarnath Yatra.

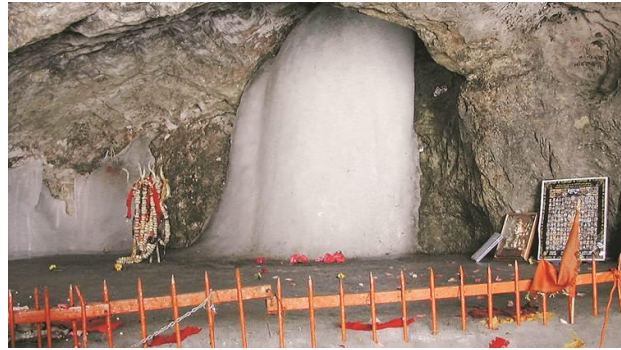


What are the lacunae that led to the attack?

- Pilgrims and the vehicles they use have to be registered with the shrine board.
- But this bus was of Gujarat registration.
- The bus moved on the heavily guarded national highway yet apparently has not been stopped for questioning regarding the registration.
- The security protocol for the annual pilgrimage bars vehicles from moving after sunset. Yet it travelled after sunset.
- Specific warning from Kashmir inspector general of police regarding such an attack has been ignored. This questions the ability of the intelligence gathering.

How the deity in the shrine is formed?

- The Amaranth cave deep is in the Himalayas in south Kashmir.
- The cave is 3,888 m above sea level, can be reached only on foot or by pony.
- Each year, hundreds of thousands of pilgrims make the trek up to the shrine.



- The ice lingam is formed by a trickle of water from the cave's roof.
- It gets its full shape in May, after which it begins to melt by August.
- The water freezes as it drips, forming, over time, a tall, smooth ice stalagmite.
- A stalactite is an icicle-shaped formation that hangs from the ceiling of a cave, and is produced by precipitation of minerals from water dripping through the cave ceiling.
- Most stalactites have pointed tips.
- A stalagmite is an upward-growing that have precipitated from water dripping onto the floor of a cave.
- Most stalagmites have rounded or flattened tips.

14.2 Border Infrastructure along China

What is the issue?

Though India's infrastructure development along the border with China has picked up, there have been some serious roll backs.

What is the status of Mountain Strike Corps?

- The Mountain Strike corps is **India's first dedicated strike corps** for mountain operations.
- It focuses on the eastern end of the contested border to bolster India's defence of Arunachal Pradesh.
- They can also be used in any mountainous region, which means all the northern borders.
- It was originally supposed to have three full divisions.
- It has been scaled down to two, of which just one division has been raised until now.
- With two divisions, the 17 Corps would have about 60,000 men, against the original plan of over 90,000.

What is the present status of other infrastructures?

- All 61 India-China Border Roads (ICBR) included in the Border Roads Development Board (BRDB) programme were planned to be completed by 2012.
- However, only 15 roads had been completed by 2012.
- Out of the balance, 46 roads, only 7 roads were completed by March 2016, extending the Planned Date of Completion (PDC) of balance roads to 2021.
- However a 9.2-km **Dhola-Sadiya bridge** was recently constructed.

- It will cut down the distance between Assam and Arunachal Pradesh by 165 km.
- India is also constructing some critical bridges in the northeast which will cut down time for troop movement.

14.3 Eleven Point Action Agenda for Counter-Terrorism

Why in news?

PM Narendra Modi presented an 11-point action agenda for counter-terrorism in the G20 Summit.

What are the 11 points?

- Adoption of Comprehensive Convention on International Terrorism.
- Effective implementation of United Nations Security Council resolutions and other international resolutions.
- Exchange of best practices and **process of de-radicalisation** of terrorism through G-20 countries.
- Closure of terror funding with the help of Financial Action Task Force.
- **Weapons and Explosive Action Task Force** must be formed to stop arms trading to a terror organisation.
- Firm and deterrent action must be taken against those countries who support terrorism and these countries must be barred from G20 summit.
- Countries attending G20 summit must exchange lists of designated terrorists and must take action against them and their supporters.
- For those arrested for terror activities, **the process of extradition** must be simplified.
- Concrete support among G-20 countries for **Cyber Security** to stop terror activities.
- G-20 countries must form National Security Advisors on Counter Terrorism.

G 20

- The Group of Twenty is an international forum for the governments and central bank governors from **20 major economies**.
- Membership: 19 individual countries plus the European Union (EU).
- Collectively, the G20 economies account for around 85% of the gross world product (GWP), 80% of world trade.
- Founded in 1999, the G20 aims to discuss policy issues pertaining to the **promotion of international financial stability**.
- The G20 heads of government have periodically conferred at summits since their initial meeting in 2008.
- It also hosts separate meetings of finance ministers and foreign ministers due to the expansion of its agenda in recent years.

14.4 Cyber Attack on Indian Agencies

Why in news?

There was a major technical snag in NSE that forced suspension of equity trading for nearly three hours.

What happened?

- NSE's cash segment could not open normally in the morning due to "technical reasons".
- The derivative segment was also shut down immediately after as it is not possible to continue trading in derivatives while the cash segment is shut.
- After two false starts, trading resumed mid-day.
- The halt has an estimated trade loss of about 7000 crores.
- This is currently being investigated on the lines of a "possible cyberattack."

Cyber-attacks

- It is any type of offensive plan that targets computer information systems by malicious acts from an anonymous source.
- It is to either steal, alter, or destroy a specified target by hacking into a susceptible system.
- Cyber-attacks can range from installing spyware on a PC to attempts to destroy the infrastructure of entire nations

What are cyber-attack events in India?

- 72% of Indian companies faced cyber-attacks in 2015.
- There has been an exponential rise in Ransomware cases in the last one year.
- In 2016, security codes of around 32 lakh debit cards were breached.
- Several users reported unauthorised transactions from locations in China.
- There are increasing number of data thefts among the civilians.

What are the recent attacks?

- The recent attack created cyber security threats to major Indian companies RJio, Airtel and NSE
- **RJio** - Personal data such as Aadhaar details of the telecom users has been published in a website.
- **Airtel** - The Radio Access Network went down for more than an hour in and around Delhi.
- There was a network outage in Delhi/NCR and one of the network nodes had been corrupted.

What is the reason for the vulnerable cyber systems?

- Various telecom giants are using the telecom products which are manufactured from china.
- Lack of importance given by government and private sectors in appointing cyber security professionals.
- No proper understanding about the cyber space.
- No ridged bilateral policies on cyber-attacks.
- No Stronger framework to trace or punish the offenders.

How can they be addressed?

- The Home Ministry is preparing an internal cyber security policy as it is required under the national plan.
- The government already started working on a customised cyber security policy for each ministry and department.
- Strong MO U's on Cyber security should be made between various agencies and neighbouring nations.
- The exchange needs to have plans to handle minor malfunctions that affect one segment of trading.
- The Securities and Exchange Board of India, needs to include trading back-up, channels of communication and investor redress mechanisms.

Indian Computer Emergency Response Team

- (CERT-In) is an office within the Ministry of Electronics and Information Technology.
- It is the nodal agency to deal with cyber security threats like hacking and phishing.
- It strengthens security-related defence of the Indian Internet domain.
- They exchange information on prevalent cyber security policies and best practices.
- There are MoUs signed between nations by this agency.

Ransomware

Ransomware is a type of malicious software that threatens to publish the victim's data or eternally block access to it unless a ransom is paid.

14.5 Need for a data protection law

Why in news?

Former chairman of the UIDAI has called for a new data protection and empowerment law.

What is the need for a data protection law?

- The present time period is said to be the '**age of data**' as private companies store huge volumes of information, a lot of it outside India's borders.
- **Data-colonising** companies like Facebook, WhatsApp use the collected information in numerous ways about which individuals have limited control.
- **Digital India** roll-out, push on digital payments and rising **e-commerce** penetration mandates a stronger data protection regime to foster trust in the data ecosystem.
- **Cybercrime** and data breaches are also on the rise.
- Cross-border data flows are increasingly becoming a key determinant for claiming a country's share in the **global digital trade**.
- A stronger data protection regime would act as an enabler for business growth and **employment** opportunities especially for the Indian IT industry.

- Collection of data by governments and agencies could be used by criminals for illegal trade, trafficking and money laundering apart from recruitment to various terror outfits.
- Lack of a stringent legal framework for data protection has led to privacy violations going unpunished, limitations on consumers' rights to claim compensation and constrains in government's ability to impose fine and penalties.

What should be done?

- The present Information Technology (IT) Act 2008 is not a substitute for a data protection regime.
- Most government departments and agencies do not come under the regulation of the act.
- India should develop a data-protection regime that suits the Indian context and safeguards against privacy violations, but does not stifle technology innovation.
- India should address the issue of privacy, data colonisation and competition.
- It is important to look at the issue from both privacy as well as national security perspectives.

14.6 Anti-piracy measures

What is the issue?

- There is an increase in incidence of attacks on shipping passing through the Gulf of Aden and this signifies a possibility of return to large scale Somali piracy and robbery at sea in the Indian Ocean.
- Government of India has recently taken serious steps to deal with piracy at sea.

What are the recent measures?

- An **Inter-Ministerial Group (IMGO)** has been set up by the Government under the Ministry of Shipping to deal with the hostage situation arising out of hijacking at sea.
- Government had also approved the **Contingency Plan** for dealing with piracy and hijacking of merchant ships.
- Committee of Secretaries on Anti-Piracy and Hijacking at sea (**COSAPH**) under the Chairmanship of Cabinet Secretary.
- Various **guidelines** that provide for elaborate anti-piracy measures (Best Management Practices) to be implemented on Indian Ships are issued.
- Enhanced vigil by the Indian Navy in the Indian Exclusive Economic Zone (EEZ) is instructed.
- Active participation of India in the **security meetings** of the International Maritime Organization, Contact Group on Piracy off the Coast of Somalia (CGPCS) and other international fora.
- Certain specific locations (including the Gulf of Aden and a region between Oman and Maldives) are mentioned for restricted movement of Indian vessels for security concerns.

PRELIM BITS CONSOLIDATION

History

Ancient bawadi in Vijayapura

- The historic Tajbawadi is a huge open well, built during the AdilShahi era in Vijayapura in Karnataka.
- It was built in 1620 in the name of Taj Sultana, the queen of Ibrahim Adil Shah – II.
- The ancient city of Bijapur, now Vijayapura has been known for its dry & arid land and frequent droughts. Thus, the AdilShahi kingdom had developed a series of bawadis to supply water to the city.
- The Tajbawadi is one of 21 such open wells being revived by district administration.
- Bahmanikingdom, is an Islamic state was founded by AlauddinBahman Shah in 1347.
- It came into existence when Muhammad-bin-Tughluq was the ruler of Delhi.
- Its capital was Gulbarga between 1347 and 1425 after which it was moved to Bidar.

Neolithic Axe

- The largest Neolithic granite axe has recently been shifted to a museum in Kerala.
- Neolithic Period, also called New Stone Age, is the final stage of cultural evolution or technological development among prehistoric humans.
- It was characterized by stone tools shaped by polishing or grinding, dependence on domesticated plants and animals, settlement in permanent villages, and the appearance of such crafts as pottery and weaving.
- The Neolithic Period was succeeded by the Bronze Age when human societies learned to combine copper and tin to make bronze, which replaced stone for use as tools and weapons.
- Important Neolithic Age sites are Mehrgarh (in present day Pakistan), Gufzral, Burzahoam (Kashmir), Chirand (Bihar), Utnur (A.P), Paiyampalli (T.N), etc.

Paika Rebellion

- President of India recently inaugurated the Bicentenary celebration of Paika rebellion of Odisha.
- It is organised by the Ministry of Culture.
- Rulers of Khurda were traditionally the custodians of Jagannath Temple and ruled as the deputy of Lord Jagannath on earth.
- The British, having established their sway over Bengal Province, occupied the Khurda's land in 1803 and took over the hereditary rent-free lands granted to Paikas.
- The Paikas, landed militia of Khurda, rose in armed rebellion in 1817 under the leadership of BaxiJagabandhu.
- The tribals of Ghumusar and other sections of the population actively took part in it.
- Many scholars, researchers and historians have opined that the Paika Rebellion of 1817 was India's first organized armed rebellion against British Raj.

Lingayats

- Lingayats, popularly known as “Veerashaivas” in the State of Karnataka, are demanding a separate religious status.
- Lingayatism is a distinct shaivite religious tradition, founded by Basavanna, a 12th-century social reformer.
- It emphasizes on monism and bhakti (loving devotion) to Shiva.
- It is spread by the followers of Basavanna, known as “Sharanas”.

Art and Culture

Gomira Dance

- Gomira dance is a rural dance form mainly practiced in the rural districts of West Bengal.
- It is a masked dance form and is performed during the harvest season of mangoes.
- The dance has its roots in Shakitism and the dancers wear the masks of deities to invoke their powers.
- It is to be noted that in 2013, an MoU was signed between the West Bengal government and UNESCO to promote culture-based livelihoods.

Akbarabadi Mosque

- Akbarabadi mosque was built by Aizaz-un-Nisa Begum in 1650 A.D.
- Aizaz-un-Nisa was the wife of Shah Jahan, a Mughal Ruler, and she had been given the title of ‘Akbarabadi Mahal’ after the place of her birth.
- Shah Jahan built the Shalimar Garden in Delhi for Aizaz-un-Nisa.
- Fatehpuri Mahal Begum was also a legally married wife of the emperor, who built the famous Fatehpuri Masjid in Delhi and also a mosque outside the Taj complex.

Theatre Olympics

- The Biggest Theatre Celebration of the World Theatre Olympics' 8th edition is to be hosted by India in 2018.
- It will be held in India for the first time and will be organised by National School of Drama, under the aegis of Ministry of Culture.
- “Theatre Olympics” was established in 1993 in Greece and is the foremost international theatre festival, presenting the well-known theatre practitioners from around the world.

Zonal Cultural Centres

- The Government of India has set up seven Zonal Cultural Centres (ZCCs) to protect, preserve & promote various forms of traditional art and folk art throughout the country.
- Each zone has a zonal headquarters where a zonal cultural center has been established and several states have membership in multiple zones.
- The headquarters of the 7 ZCC are Patiala, Nagpur, Udaipur, Allahabad, Kolkata, Dimapur and Thanjavur.
- No State/UT-wise funds are provided for the promotion of traditional art and folk art.

- However, annual grant-in-aid is provided to these 7 ZCCs for carrying out various cultural activities throughout the country.

HEBRON

- Recently, UNESCO decided to recognise “HEBRON”, a West Bank City sacred to both Jews and Muslims, as “Endangered Palestinian heritage site” i.e. World Heritage Site in danger.
- UNESCO, the UN cultural agency, is responsible for promoting peace, social justice, human rights and international security through International cooperation on educational, scientific and cultural programs.
- It has 195 member states and is based in Paris, France.
- UNESCO’s World Heritage Mission encourages world countries to protect Natural and Cultural **Heritage sites**.
- It publishes Global **Education** Monitoring report and **Gender** Parity Index.
- It also leads the **Man and Biosphere Programme** for protecting Biosphere Reserves across the world.

Okinoshima

- Okinoshima, a tiny landmass in Japan, has been declared a UNESCO World heritage site.
- Women are banned here and the island is permanently manned by Shinto priests who pray to the island’s goddess as part of their tradition.
- Along with this, the UNESCO’s heritage committee had considered 33 sites for its world heritage tag at its annual gathering in Poland.

World Heritage City

- Ahmedabad has been declared India’s first World Heritage City by the World Heritage Committee (WHC) of UNESCO.
- It is a more than 600 year old city founded by Ahmed Shah.
- It is walled with 5.5 km city area.
- The 5.5 km city area, where an approximate population of four lakh lives in century old wooden residences in around 600 neighbourhoods, is regarded as a living heritage.
- It is also lauded for the peaceful co-existence of dominant Hindu, Islamic and Jain communities in the Walled City area.
- The city was the epicentre of non-violent freedom struggle that led to the country’s independence.

Geography

Hywind

- It is the first full-scale floating wind farm being built in Scotland.
- It has turbines taller than Britain’s wind farm “Big Ben”.
- The technology will allow wind power to be harvested even in waters that are too deep for the existing bottom-standing turbines.

India China Mountain Passes

- **Shipki La pass** – It is located in the State of Himachal Pradesh, through which river Sutlej enters India.
- **Lipulek pass** – It is located in the State of Uttarakhand, and it is the older route for KailashMansarovarYatra.
- **Nathula pass** – It is located in the State of Sikkim, connecting Tibet and India. It is a new and shorter route for the KailashYatra.
- All the three passes are open trading borders between India and China.

Cloudbursts in Chenab Valley

- A cloudburst is an extreme amount of rainfall that takes place in a very short span of time.
- It is accompanied by hail storms and thunder and is capable of creating floods.
- Cloudbursts are infrequent, as they occur only via orographic lift or occasionally when a warm air parcel mixes with cooler air, resulting in sudden condensation.
- Chenab Valley lies between the middle and outer Himalayan range in the Jammu region of Jammu and Kashmir, India.

High Altitude Cloud Observatory

- A high altitude cloud physics observatory has been established at Munnar, in Western Ghats.
- It is used to observe cloud and rain processes over that region, with state of the art observations.
- The observatory will enable better understanding of rainfall distribution and characterization of rainfall processes in the numerical models used for prediction of monsoon rainfall.
- Another high altitude cloud physics observatory is functional at Mahabaleshwar in Maharashtra.

Typhoon “Noru”

- The typhoon ‘Noru’, originated in south-east of Japan, had marked the beginning of the Monsoon season in the North-West Pacific.
- This is only the second time since 1950 that the first typhoon of the season materialised in the North-West Pacific.
- It is predicted that the typhoon may usurp the Indian monsoon during this period.
- The Indian monsoon flows will be pulled across the peninsular tip into the Bay of Bengal to feed the Pacific storms.

Zealandia

- Scientists have recently attempted to solve the mysteries of Zealandia by setting sail on an expedition to South Pacific.
- Zealandia, an underwater landmass, was once part of the Gondwana super-continent but broke away some 75 million years ago.
- It is submerged beneath South Pacific, extending from south of New Zealand to north of New Caledonia, covering 5 million square kilometres.

- A piece of seafloor called the Cato Trough still separates Zealandia and Australia.
- It meets all the criteria that are satisfied by the existing seven continents. These are as follows:
 1. it is elevated above the area that surrounds it.
 2. it has its own distinctive geology.
 3. the area that it takes up is well defined.
 4. it has a crust thicker & lighter continental crust than the regular ocean floor with dark volcanic rocks.

Ragi

- Recently, Genome sequencing of Millet Ragi is done for the first time in the world.
- Scientists have identified genes which are responsible for drought-tolerance and high nutrient quality of Ragi.
- This information serves as a base for further increasing the drought tolerance of Ragi, rice and wheat through transfer of genes from Ragi.
- Ragi was first domesticated from a wild species in Western Uganda and the Ethiopian Highlands before being introduced in India in around 3,000 BC.
- Ragi occupies 12% of global millet cultivation area.
- In India, Karnataka leads the cultivation of Ragi, followed by Rajasthan.

Tiwa Tribe

- Tiwa tribes are indigenous ethnic groups inhabiting the states of Assam and Meghalaya.
- They are recognized as a Scheduled tribe within the State of Assam.
- A striking peculiarity of the Tiwa is their division into two sub-groups, Hill Tiwa and Plains Tiwas, displaying much contrasted cultural features.
- The **Hill Tiwas** live in Karbi-Anglong (Assam) and Northeastern corner of Meghalaya and practice “Slash and Burn” method of farming.
- **Plains Tiwas** live on the flat lands of the Southern bank of the Brahmaputra valley and influence wet rice cultivation methods, and rice has become their major crop.
- **Tiwa, or Lalung**, is a Tibeto-Burman language of Assam in North East India.
- **PanthaiLanga** is one of the rituals practised by them, which is meant to worship the deities of nature.
- Tiwa people, who live in the hills, are not permitted to prepare their paddy field for the next harvest before performing PanthaiLanga ritual.

SONA

- It is a microbial consortium developed by the Central Research Institute for Research in Jute and Allied Fibres (CRIJAF).
- A microbial consortium is two or more microbial groups living symbiotically.
- The aim is to enhance the quantity of fibre yield of jute as well as its quality in terms of grade.

Dedicated Freight Corridors (DFC)

- Recently, Ministry of Railways have sanctioned the implementation of Western and Eastern Dedicated freight corridors.
- The commissioning of Western and Eastern DFCs is targeted in phases by 2019/2020.
- Western DFC covers the States of Haryana, Uttar Pradesh, Rajasthan, Gujarat and Maharashtra and is funded by the World Bank.
- Eastern DFC covers the States of Punjab, Haryana, Uttar Pradesh and Bihar and is funded by Japan International Cooperation Agency (JICA).

Polity

Chief Election Commissioner

- Election Commissioner Achal Kumar Joti is recently appointed as the next Chief Election Commissioner (CEC), succeeding Nasim Zaidi.
- Election Commission of India, a constitutional body, empowered to conduct free and fair election is headed by Chief Election Commissioner and two Election Commissioners.
- Chief Election Commissioner (CEC) and two Election Commissioners are appointed by the President of India on the recommendation of the PM and the Council of Ministers.
- Conventionally, senior-most Election Commissioner is appointed as the CEC.
- CEC and other ECs have a tenure of six years or hold office till the age of 65 years, whichever is earlier.
- CEC and other ECs receive salary and other allowances similar to a Judge of the Supreme Court of India.
- The Chief Election Commissioner can be removed from office only through an impeachment by the Parliament in a manner similar to that of a judge of the Supreme Court.
- On the other hand, other Election Commissioners can be removed by the President on recommendation of the Chief Election Commissioner.

Cooperative Societies' polls

- Rajasthan has become the first state in the country to lay down the minimum educational qualifications for contesting elections to village cooperative societies and various other cooperative bodies.
- The educational qualifications will range from Class V to Class VIII for members of governing boards of dairy societies and various other cooperative societies.
- A co-operative society shall be formed under the Co-operative Societies Act, 1912 or under the relevant state co-operative society's law.
- The elections to various posts in the societies after a certain level would be conducted through the state cooperative election authority.

Social issues

ODF cities

- All cities of MP, Maharashtra, Chhattisgarh, Jharkhand, Kerala, Telangana are set to become ODF (Open Defecation Free) by October 2 this year, marking the completion of three years of Swachh Bharat Mission (Urban).

- Gujarat and Andhra Pradesh had already declared all cities and towns ODF.
- Chandigarh is the only UT to have become ODF.

Database on Lynching

- National Crime Records Bureau (NCRB) tabulates and analyses crime data from across the country every year.
- It is planning to now collect country-wide data on lynching incidents annually, record causes and analyse reasons for the same.
- At present no centralised data is available on lynching cases, which are being reported in cases of theft, witchcraft, and recently over child theft and cow-protection.

Operation Muskaan

- It was launched by the Union Ministry of Home Affairs.
- The main aim of the programme is to prevent child trafficking and rescue children from persons who try to engage them in begging, sexual trade and other antisocial activities.
- Under this programme, specially trained police teams would screen all children residing in shelter homes, railway platforms, bus stands, roads and religious places.

Bengaluru Declaration

- The declaration has been adopted by the recently held Dr.B.R.Ambedkar International Conference 2017.
- The conference was sponsored by the Karnataka government.
- It calls for affirmative measures in the private sector, judiciary, educational institutions, government contracts and in effort for promotion of Dalits.
- The declaration focuses on SC/STs, Minorities and Backward Classes.
- The declaration called for,
 1. Reservation for SC/ST in appointment of judges, promotions, government contracts, private higher educational institutions and in the private sector.
 2. Reservation of seats in the legislature for OBCs.
 3. Setting up of an income commission for farmers.
 4. Upholding rule of law through police reforms.
 5. State actions to prevent lynching.
 6. Law against gender and caste discrimination in educational institutions.

SHe-box Portal

- It is an online platform launched by the Ministry of Women and Child Development.
- The platform is to enable women employees of the central government to file complaints related to sexual harassment at workplace.

Senior Citizens' Welfare Fund

- Recently, the government has notified that Insurance Companies should no longer retain the unclaimed amounts of policyholders if those accruals are more than 10 years old.
- Such amount would be transferred to the Senior Citizens' Welfare Fund.
- It will have funds from unclaimed deposits in small savings schemes including Post Office Savings Accounts, Public Provident Fund and Employees' Provident Fund within one year.
- The fund will be utilised for the schemes meant for the promotion of welfare of senior citizens in line with the National Policy on Older Persons and the National Policy on Senior Citizens.
- The nodal Ministry for the Fund shall be the Ministry of Social Justice.

Government initiatives

INAM-Pro +

- INAM-Pro+ is an upgraded version of INAM-Pro, a web portal launched by the Ministry of Road Transport and Highways.
- INAM Pro is a common **platform to bring cement buyers and sellers together** and make it very convenient for the buyers to procure cement at reasonable rates in a transparent manner.

Slum YuvaDaud

- The Ministry of Youth Affairs and Sports and the Ministry of Information and Broadcasting flagged off the 5 th Mega Slum YuvaDaud.
- It is a part of the Adopt Slum Campaign initiated by the Ministry of Youth Affairs & Sports.
- It aims to involve youngsters in constructive activities to keep them away from anti-social evils such as drug abuse and violence and to utilize their energy for development.
- The initiative also encourages the youngsters to participate in sporting events and competitions to utilize their time and skills to achieve big in life.

Food irradiation Centres

- Under the integrated cold chain scheme, to tide over shortages, post-harvest losses, price rise and to preserve fruits and vegetables, four irradiation projects have been approved in U.P, Haryana, Karnataka and Rajasthan recently.
- In irradiation centres, food products are subjected to a low dosage of radiation to treat them for germs and insects, increasing their longevity and shelf life.
- Food can be irradiated only in a food irradiation plant authorised by the Atomic Energy Regulatory Board and licensed by the competent Government Authority.
- The irradiation doses are recommended by the International Atomic Energy Agency (IAEA).

Nivaran

- It is the grievance redressal portal launched by the Ministry of Railways.
- It is the first IT application to be launched on the Rail Cloud.
- It is a platform for resolution of service related grievances of serving and former railway employees.

- The existing grievance redressal has been made cloud-ready and migrated as the first cloud application of Indian Railways.

Four digital initiatives to push e-education

- **Swayam** - It is an indigenously designed massive open online course (MOOC) which would target those students who could not complete their studies and professionals who wish to upgrade their knowledge.
- However, it would not run courses such as engineering, medicine, dental, pharmacy, nursing, architecture, and physiotherapy.
- **SwayamPrabha** – It is a project to operationalise 32 Direct-to-Home(DTH) Television Channels for providing high-quality educational content.
- Through SwayamPrabha, the government would air new content of four hours every day, which would be mainly for students from Class IX to XII and those who are preparing for admissions into IITs.
- **National Digital Library** – It is an e-library containing 6.5 million books.
- **National Academic Depository** – It is for authenticating all certificates issued by academic institutions.
- These initiatives are expected to increase the Gross Enrolment Ratio in the higher education from 24.5 (2015-16) to 30 by 2020.

Traditional Knowledge Digital Library (TKDL)

- TKDL is an Indian initiative to prevent exploitation and to protect Indian traditional knowledge from wrongful patents mainly at International Patent Offices.
- TKDL contains **Indian traditional medicine knowledge** in a digitized format and is available in five international languages (English, French, German, Spanish and Japanese).
- Indian traditional medicine knowledge in TKDL pertains to traditional books related to Ayurveda, Unani and Siddha.
- **CSIR** is the implementing agency for TKDL. Funds under the scheme are provided only to CSIR and no funds have been allocated to any state.

Indian Institutes of Information Technology

- Recently, Lok Sabha has passed a bill to declare Indian Institutes of Information Technology (IIIT) as Institutes of National Importance (INI).
- IIIT was established under the Public Private Partnership Model.
- INI status will enable IIITs to award degrees and entitle them to use the nomenclature of B.Tech, M.Tech or Ph.D degrees as issued by a University or Institute of National Importance.

Institute of National Importance (INI)

- INI is a status conferred to a premier public higher education institution in India by an act of parliament.
- It is conferred on an institution which "serves as a pivotal player in developing highly skilled personnel within the specified region of the country/state".
- INIs receive special recognition and funding.

- All IITs, NITs, AIIMS, School of Planning and Architecture and Indian Institutes of Science Education and Research are considered Institutes of National Importance.

Aarambh

- Recently, the Union Ministry of Rural Development has launched **Aarambh, a mobile App for road maintenance in rural areas.**
- The app aims at use of GIS based mapping for making road inventories, condition surveys, producing cost estimates and other relevant data for preparation and monitoring of annual road maintenance plans.
- There is also **another initiative in the name of “Aarambh”** launched by the network of organizations in India and Internet Watch Foundation (IWF) in Britain.
- It is the country's first-ever hotline to curb sexual abuse of children through the Internet and to remove child pornographic content online.

Jute – ICARE

- It is an initiative of the Ministry of Textiles **to double the income of jute farmers.**
- Improved Cultivation and Advanced Retting Exercise for Jute (Jute – ICARE) introduced some of the better agronomic practices and microbial-assisted retting among farmers.
- **Retting** is a process in which jute is placed in liquid so as to promote loosening of the fibres from the woody tissue.
- It was promoted intensively in few blocks in West Bengal and Assam on pilot basis.
- Under the project, SMSs are sent in regional languages on improved practices in jute cultivation, to registered farmers.

Islands Development Agency

- It is a newly constituted agency for preparation of plans for holistic development of identified islands.
- Recently, the agency's first meeting was convened and headed by Union Home Minister.
- Ten islands from Andaman and Nicobar and Lakshadweep have been identified by the government for improving maritime economy, preserving the eco-system and addressing security concerns.
- The islands include Smith, Ross, Aves, Long and Little Andaman in Andaman & Nicobar Islands and Minicoy, Bangaram, Suheli, Cherium and Tinnakara in Lakshadweep.

SagarVani

- SagarVani is an app developed by the Ministry of Science & Technology, Ministry of Earth Sciences and Ministry of Environment, Forests & Climate Change on the occasion of Foundation Day of Ministry of Earth Sciences.
- It is an integrated information dissemination system **servicing fishermen community** with advisories and alerts towards their livelihood as well as their safety at Sea.
- The information to be disseminated is given by INCOIS under Ministry of Earth Sciences (MoES).
- The system also has the facility to provide access to various stakeholders, NGOs, State Fishery Departments, Disaster Management Authorities; they will further disseminate these ocean information and alerts to the user community.

Government Schemes

Sunset clause for all Centrally Sponsored Schemes

- Every scheme has a sunset date and an outcome review.
- In the past, every scheme used to be revisited at the end of each plan period for their continuation to the next Five Year Plan.
- However, after the discontinuation of Five Year Plan, it has been decided that sunset date will be coterminous with Finance Commission Cycles.
- All the 28 centrally sponsored schemes have Sunset clauses except MGNREGA under Ministry of Rural Development.

Prime Minister's Employment Generation Programme (PMEGP)

- Ministry of MSME is implementing PMEGP, which is a major **credit-linked subsidy programme** aimed at generating self-employment opportunities through establishment of micro-enterprises in the **non-farm sector**.
- Khadi and Village Industries Commission (**KVIC**) is the **nodal implementing agency** at the national level.
- KVIC, Khadi & Village Industry Boards (KVIB) and District Industry Centres (DIC) are the implementing agencies in the states.
- The maximum cost of projects is Rs. 25 lakh in the manufacturing sector and Rs. 10 lakh in the service sector.

PradhanMantriVayaVandanaYojana (PMVVY)

- It is a **Pension Scheme** announced exclusively for the **senior citizens aged 60 years and above**.
- It is launched by the **Ministry of Finance**.
- **Life Insurance Corporation of India** is the implementing agency.
- It provides an assured return of 8% p.a. payable monthly for 10 years.
- It is exempted from Service Tax/ GST.
- The ceiling of maximum pension is for a family as a whole; the family will comprise of pensioner, his/her spouse and dependants.
- Premature withdrawal from the scheme is possible in case the money is required for the treatment of terminal or critical illness of the person or spouse.
- The shortfall owing to the difference between the interest guaranteed and the actual interest earned shall be subsidized by the Government of India and reimbursed to the Corporation.

Mission ParivarVikas

- **Ministry of Health and Family Welfare** launched this mission on the occasion of World Population Day.
- The mission focuses on **family planning initiatives** and targeted approaches for **population stabilisation** through better services delivery approach.
- It will focus on 146 high fertility districts in 7 states with high TFR (Total Fertility Rate).

- A new program named “**Antara**” was launched under this mission. Under this programme, a new **injection** will be used which will act as an alternative to the current birth control methods.

Gharib Nawaz Skill Development Centre

- **Ministry of Minority Affairs** has inaugurated India’s first Gharib Nawaz skill development centre in Hyderabad.
- It is launched for **providing short term job oriented skill development course** for youths belonging to minority communities.
- It offers certificate course in Goods and Services Tax accounting/programming and other related subjects.

Bharat Net

- The Cabinet recently revised the implementation strategy for Bharat Net programme.
- The programme aims to provide minimum 100 Mbps broadband **connectivity to all gram panchayats** by March 2019.
- The first phase has connected 1,00,000 gram panchayats.
- It is funded from **Universal Service Obligation Fund**.
- **Bharat Broadband Network** is the nodal agency to oversee the work.
- As part of the modified strategy, implementation will be done by the states, state agencies, private sector companies and central public sector undertakings.

Aajeevika Grameen Express Yojana

- It is a new sub-scheme under Deendayal Antyodaya Yojana – National Rural Livelihoods Mission (DAY-NRLM).
- Its main objective is to provide an **alternative source of livelihood to members of Self Help Groups (SHGs)** and facilitate them to operate **public transport services in backward rural areas**.
- Thus it will provide safe, affordable and community monitored rural transport to connect remote villages with key services and amenities.
- It will be implemented in 250 blocks in the country on a pilot basis for a period of 3 years from 2017-18 to 2019-20.
- Under this scheme, Community Based Organisation (CBO) will provide interest free loan from its own corpus to the Self Help Group members for purchase of vehicles.

Hamari Dharohar Scheme

- It was launched by the **Ministry of Minority affairs** for preservation of rich heritage and culture of minority communities of India.
- Funding under the scheme is project based and not State/District-wise.
- It aims to support curation of iconic exhibitions, calligraphy, research and development, etc.
- A project has been initiated to translate documents belonging to medieval period on the subjects of Medicines, Mathematics, and Literature from Arabic language to English.

Scheme for IPR awareness

- A '**Scheme for IPR awareness – Creative India; Innovative India**' has been launched by Cell for IPR Promotion and Management (CIPAM).
- It aims at raising IPR awareness amongst students, youth, authors, artists, budding inventors and professionals to inspire them to create, innovate and protect their creations and inventions across the country.
- Area of Coverage of the scheme - Pan India, including Tier 1, Tier 2, Tier 3 cities as well as rural areas.
- Total project Duration - 3 years (2017 – 2020).
- The scheme targets to conduct IPR awareness workshops/seminars tailored in 4 categories – Primary School, Secondary school, University/ College and Industry, including MSMEs and Start ups.
- **CIPAM** - It is a professional body under the aegis of Department of Industrial Policy and Promotion.
- It works to take forward the implementation of the **National IPR policy** and creates public awareness about IPR in the country.

Learn and Earn Scheme

- SeekhoaurKamao (Learn and Earn) is a central sector scheme implemented by the **Ministry of Minority Affairs**.
- It aims to provide **placement linked skill training** to youths from minority communities.
- It is implemented across the country through selected Project Implementing Agencies (PIAs).

SwadharGreh Scheme

- The Scheme is implemented by the **Ministry of Women and Child Development** targeting women victims.
- **Women victims** of difficult circumstances who are in need of institutional support for rehabilitation are being given help so that they could lead their life with dignity.
- The Scheme envisages providing shelter, food, clothing and health as well as economic and social security for women victims.
- The scheme focuses on establishing one SwadharGreh in each district.

Integrated Health Information Platform (IHIP)

- Recently, a scheme to set up an Integrated Health Information Platform (IHIP) to create Electronic Health Records (EHRs) with the help of Health Information Exchanges has been approved.
- Electronic Health Records contain medical history of citizens.
- EHR intends to bring standardisation and homogeneity of healthcare information across various systems.
- States/UTs are already working on computerisation and implementation of hospital information system (for creation of electronic records) in their hospitals/health facilities with support under National Health Mission.

Accidental Insurance for RuPay ATM Card Holders

- All RuPay ATM-cum-debit cardholders are presently eligible for accidental death and permanent disability insurance cover.

- RuPay Classic cardholders are eligible for cover of Rs.1 lakh, whereas RuPay Premium cardholders are eligible for cover of Rs.2 lakh.
- Insurance premium is paid by the **National Payments Corporation of India**.

JiyoParsi

- Recently, JiyoParsi Publicity Phase-2 was launched by Union **Ministry of Minority affairs** in Mumbai.
- The main objective of the “JiyoParsi” scheme is **to reverse the declining trend of Parsi population**, stabilize their population and increase the population of Parsis in India.
- The scheme has two components such as Medical Assistance and Advocacy (Counselling).

Bilateral issues

Saint Petersburg Declaration

The declaration marks the 70th anniversary of the establishment of diplomatic relations between Russia and India.

Pant-Mirza Agreement

- It is an agreement between **India and Pakistan** under the ‘**Bilateral Protocol on Visits to Religious Shrines**’, signed in 1974.
- It facilitates visits by nationals of India and Pakistan to mutually agreed list of religious shrines in each other’s country.
- Under the Protocol, it is the obligation of the concerned country to make every effort to ensure that the places of worship in the agreed list of shrines are properly maintained and their sanctity preserved.
- Shrines of HazratMoinuddinChishti (Ajmer), HazratNizamuddinAuliya (Delhi), Hazrat Amir Khusro (Delhi), HazratMujaddid Alf Sani (Sirhind Sharif) and HazratKhawajaAlauddin Ali Ahmed Sabir (Kalyar Sharif) **in India** are included under the protocol.
- ShadaniDarbar (HyatPitafi), ShriKatasrajDham (Lahore), Gurudwaras of ShriNankana Sahib (Rawalpindi), ShriPanja Sahib (Rawalpindi) and ShriDera Sahib (Lahore) **in Pakistan** are included.

Indo-Japan Nuclear Deal

- A landmark civil nuclear cooperation deal between India and Japan came into force recently.
- It provides for collaboration between the countries' industries in the nuclear field.
- The deal allows the US and French nuclear firms, which have alliances with Japanese companies, to have nuclear commerce with India.

Air Freight Corridor

- Recently, Air freight corridor was established between **India and Afghanistan**.
- The connectivity established through the Air Freight Corridor will promote bilateral trade and provide Afghanistan, a landlocked country, direct access to India.
- The cargo flight enables Afghan farmers, quick and direct access to the Indian markets for their perishable produce.

SASEC Road Connectivity Program

- **South Asian Sub-Regional Economic Cooperation (SASEC)** Road Connectivity Investment Program aims at upgradation of road infrastructure in **Bangladesh, Bhutan, Nepal and India (BBIN)**.
- The project corridor is also a part of the Asian Highway No. 01 (AH01) and acts as India's Gateway to the East.
- The project is being developed with **Asian Development Bank's** loan assistance.
- As part of this program, union cabinet recently approved the widening and upgrading of Imphal- Moreh section of NH 39 in Manipur.

South Asia Subregional Economic Cooperation (SASEC)

- It was set up in 2001 including Bangladesh, Bhutan, India, Maldives, Myanmar, Nepal and Sri Lanka.
- Asian Development Bank (ADB) serves as the Secretariat for the SASEC member countries.
- It aims to promote regional prosperity by improving cross-border connectivity, boosting trade among member countries, and strengthening regional economic cooperation.

International institutions and issues

Beijing Declaration on Education

- Recently, 5th Meeting of BRICS Ministers of Education was held in Beijing, China.
- It adopted Beijing declaration on Education which calls for achieving Sustainable Development Goal 4 **(SDG4)-Education 2030**.
- SDG4 - "Ensure inclusive and equitable, quality education and promote life-long learning opportunities for all".
- BRICS Ministers of Education meeting had adopted Brasilia declaration in 2015, Moscow declaration in 2015 and New Delhi Declaration in 2016.

Brasilia Declaration

- The Brasilia declaration is also known for the creation of **IBSA** (India, Brazil, and South Africa) forum in 2003.
- Global High-Level Conference on **Road Safety** hosted by Brazil and WHO adopted Brasilia Declaration on Road Safety.
- The member countries have agreed to reduce the number of accidents and deaths to half by the year 2020.
- **India is a signatory** to this declaration.

Codex Alimentarius Commission (CAC)

- CAC is an international food standards setting body.
- It facilitates evolving a common standardization process for global trade and availability.
- Codex Alimentarius (Food code) is a collection of internationally recognized standards, codes of practice, guidelines, and other recommendations relating to foods, food production, and food safety.
- CAC has recently adopted three Codex standards for black, white and green pepper, cumin and thyme owing to India's efforts to benchmark global spices trade.

- With the adoption of codex standards, spices have been included for the first time as commodities that will have such universal standards.
- It will benefit the trade from universal agreement to identify good quality spices.

World Petroleum Congress

- World Petroleum Congress is widely recognized as the **`Olympics` of the oil and gas industry.**
- It is conducted tri-annually and various countries in World Petroleum Council bid to host the session in their country.
- Turkey has won the bid to host 22nd World Petroleum Congress – 2017.
- It attracts Ministers, CEOs of Oil and Gas MNCs, experts and academics from the hydrocarbon sectors, and provides an ideal forum to showcase the potential of hydrocarbon sector in various countries.
- **World Petroleum council** – It is a non-advocacy, non-political organisation with charitable status in the U.K. and has accreditation as a Non-Governmental Organization from the United Nations.
- The WPC is dedicated to the promotion of sustainable management and use of world's petroleum resources for the benefit of all.

Economy

Anti-Profiteering authority

- Under GST, a five member panel will choose the members of the Anti-profiteering authority.
- The authority will have powers to take action against the companies that are not passing on the benefits of lower tax incidence to end users and to order the cancellation of companies' registration under GST.
- The authority will have the powers to debar an errant assessee from conducting business, if found to be involved in profiteering.
- The authority will cease to exist two years after its constitution.
- The authority will have a **chairman**, of the rank of a Secretary, and **four nominated members**, who have been commissioners of central or state tax departments.
- The additional director general of safeguards will be the secretary to the authority.

Bharat Bill Payment System (BBPS)

- Recently, RBI has given approval to National Payments Corporation of India (NPCI) to function as the Bharat Bill Payment Central Unit (BBPCU) and operate Bharat Bill Payment System (BBPS).
- This initiative will provide a major push to digital payments as it is a big step forward in formalising the bill payment system in the country.
- BBPS is an integrated bill payment system in India offering interoperable bill payment service to customers through a network of agents, enabling multiple payment modes and providing instant confirmation of payment.
- NPCI will be responsible for setting business standards, rules and procedures for technical and business requirements for all the participants.

- NPCI, as the BBPCU, will also undertake clearing and settlement activities related to transactions routed through BBPS.
- Payments through BBPS may be made using cash, transfer cheques and electronic modes.
- Bill aggregators and banks which will function as operating units, will carry out the transactions for the customers.

Comex Union

- The National Multi-Commodity Exchange (NMCE) has decided to merge with the Reliance Group promoted Indian Commodity Exchange (ICEX).
- The merged entity will create the third-largest commodity exchange in the country.
- The country's largest exchange by volume is the Multi Commodity Exchange, or MCX, followed by the National Commodity and Derivatives Exchange (NCDEX).
- The merger will offer world's first diamond futures contract, which has already received in-principle approval from SEBI.
- It will also offer a wide range of contracts, including bullion, oil and rubber.

Most Competitive State

- According to recent study conducted by National Council for Applied Economic Research (NCAER), **Gujarat** has topped in business investment potential and has become the most competitive state.
- The Study ranks the states' competitiveness on six pillars namely land, labour, infrastructure, economic climate, political stability and governance, and business perception.
- Gujarat is followed by Delhi, Andhra Pradesh, Haryana, Telangana and Tamil Nadu.
- West Bengal ranks last on the index, followed by Uttar Pradesh and Bihar.
- While corruption continues to be a sore area for businesses, the report notes that perceptions of corruption seem to be improving, indicating change.
- The percentage of respondents citing corruption as a constraint for conducting business has fallen from 79 per cent in 2016 to 57 per cent in 2017.

Committee on Corporate Governance

- SEBI has recently appointed a committee headed by UdayKotak to help improve the standards of corporate governance of listed companies in India.
- It will look into corporate governance challenges faced by listed Public Sector Enterprises (PSE).
- Issues such as succession policy, role and appointment of independent directors, accountability and autonomy of boards will be taken up by the Committee.
- The Committee would also consider about creating a level playing field between the public sector and the private sector for applicability of RTI.

National Company Law Tribunal (NCLT)

- Recently, Supreme Court used its extraordinary power under Article 142 of the constitution, to allow two companies to withdraw from insolvency proceedings despite being admitted to the NCLT.

- According to Insolvency and Bankruptcy Code, 2016 if NCLT admits a case for initiating corporate insolvency resolution process, it cannot be withdrawn even if the parties decide to settle the dispute.
- The National Company Law Tribunal (NCLT) is a quasi-judicial body in India that adjudicates issues relating to companies in India.
- It was established under the Companies Act, 2013 and was constituted on 1 June 2016.
- The appeal against NCLT order goes to National Company Law Appellate Tribunal (NCLAT).

Abolition of Cesses along with GST rollout

The cesses that have been abolished from July 1 by the Taxation Laws (Amendment) Act include,

- KrishiKalyan Cess
- Swachh Bharat Cess that was levied along with the service tax.
- Education cess on excisable goods.
- The Clean Energy Cess, which was levied on coal.
- Cesses such as those on tea, sugar and jute.

The cesses that will be continued include,

- Education cess, secondary and higher education cess on imported goods.
- Cesses on petroleum products.
- Cesses on tobacco and tobacco products.

Purchasing Managers' Index (PMI)

- In the recent survey, PMI reveals that manufacturing activity slowed to a 4 month low in June due to challenges imposed by GST.
- PMI is an indicator of the economic health and investor sentiments about the manufacturing sector (there is services PMI as well).
- The PMI is based on five major indicators: new orders, inventory levels, production, supplier deliveries, and the employment environment.
- Its purpose is to provide information about current business conditions to company decision makers, analysts and purchasing managers.
- For India, the PMI Data is published by Japanese firm Nikkei but compiled and constructed by Markit Economics.
- PMI and IIP - IIP (Index of Industrial Production) shows the change in production volume in major industrial subsectors like manufacturing, mining and electricity. It covers broader industrial sector compared to PMI.
- PMI shows the growth oriented positive trends and not just the volume of past production that can be traced in an ordinary Index of Industrial Production.

Veblen good

- It is a good for which demand increases as the price increases, because of its exclusive nature and appeal as a status symbol.

- It violates the law of demand, which states that when price of a good increases, the demand decreases.
- Luxury good like diamonds, whose appeal depends on their exorbitant price is an example of a Veblen good.
- Veblen goods are similar to Giffen good which also violates the law of demand.
- The Giffen good is typically an inferior product unlike Veblen good which is mostly an expensive product and status symbol.
- For e.g. when the price of a necessary good rises (eg. a food staple), consumers are forced to substitute it with even more expensive alternatives to purchase more of the staple.

AT-1 bonds

- Recently, three government-owned banks have decided to raise capital through AT-1 bonds to meet their Capital Adequacy Ratio (CAR).
- AT-1 bonds are Additional Tier 1 bonds.
- Under BASEL –III norms, a bank's capital comprises two tiers.
- Tier 1 or core capital has two components such as common equity (CET-1) and hybrid capital, combining features of equity and debt, termed as Additional Tier 1 capital.
- A bank's strength to withstand or absorb stress is measured by the level of Tier 1 capital.
- Tier II is a supplementary capital.

Alternative Investment Fund

- SEBI has recently allowed Category III Alternative Investment Funds to participate in the commodity derivatives market.
- Harmony Hedge Fund became the first category III Alternative Investment Fund and first institutional investor to register on Multi Commodity Exchange.
- Anything alternate to traditional form of investments gets categorized as alternative investments.
- AIF is a privately pooled investment fund, in the form of a trust or a company or a body corporate or a Limited Liability Partnership (LLP) which are not presently covered under the jurisdictions of any regulatory agency in India.

Bilateral Investment Treaty

- A bilateral investment treaty (BIT) is an agreement establishing the terms and conditions for private investment by nationals and companies of one state in another state.
- The existing BITs are negotiated based on the Model BIT text adopted in 1993 and amended in 2003.
- The process of reviewing and revising the existing BITs was started in 2015 and the negotiations on revised Model BITs are being carried out with USA, Russia and EU.
- BIT includes fair and equitable treatment, protection from expropriation, free transfer of means, and full protection and security.
- BITs are established through trade pacts and they allow for an alternative dispute resolution mechanism, through an Investor-State Dispute Settlement (ISDS).

- BITs help project India as an attractive Foreign Direct Investment (FDI) destination, as well as protect outbound Indian FDI.
- It boosts the confidence of investors by assuring a minimum standard of treatment and non-discrimination.

Environment

Greenland Sharks

- Greenland Shark is the longest living vertebrate on Earth, which live for up to 400 years.
- It is found in the deep waters of the Atlantic Ocean from Canada to Norway, including the deep oceans around the north of Britain.
- Scientists have sequenced the full mitochondrial DNA information of Greenland sharks in an attempt to find the secret of its longevity.
- The sharks are believed to have unique genes that could help explain their long lifespan and also for other vertebrates including humans.

White Tiger

- A rare white tiger has been spotted for the first time in the Nilgiris in Western Ghats.
- The White Tiger (also known as the White Bengal Tiger) is a subspecies of Tiger, found throughout the Indian subcontinent.
- Although the range of the White Tiger is historically very large, these animals are incredibly rare as their colouration is dependent on a defective, recessive gene that is passed on from their parents.
- Scientific literature describes the cause for white coloration of Bengal tiger as a genetic mutation among tigers that changes an amino acid responsible for the normal colour.
- White tigers lack Pheomelanin, which is responsible for the red-yellow hue in the skin coat.
- Along with the Bengal Tiger, the White Tiger is considered to be the second largest species of Tiger in the world, after the Siberian Tiger.
- White Tigers have been reported predominantly from Rewa, Madhya Pradesh.
- World's first "white tiger safari" was opened for public in Mukundpur Zoo, Madhya Pradesh last year.
- The White Tiger is listed by the IUCN in the "Endangered" Category.

Sperm Whale

- The sperm whale (*Physeter macrocephalus*), or cachalot, is the largest of the toothed whales and the largest toothed predator.
- The spermaceti oil extracted from it is used in oil lamps, lubricants, and candles.
- Ambergris is a solid waxy waste product from its digestive system, used as a fixative in perfumes and for other purposes.
- The species is now protected by a whaling moratorium.
- It is currently listed as vulnerable by the International Union for the Conservation of Nature and Natural Resources (IUCN).

Northern River Terrapin

- A terrapin is one of the several small species of turtle living in fresh or brackish water.
- The northern river terrapin (*Batagurbaska*) is a species of riverine turtle native to Southeast Asia.
- It is classified as “Critically Endangered” by the IUCN.
- The species is currently found in Bangladesh (in the Sundarbans), India (parts of West Bengal & Odisha), Indonesia, Cambodia, and Malaysia.
- The northern river terrapin is omnivorous, and it prefers freshwater habitats.
- It moves to brackish river mouths or estuaries in the breeding season (December–March) and returns after laying eggs.
- A captive conservation breeding programme has been implemented in Sunderbans Tiger Reserve to protect the species against natural risks and also facilitate genetic management.

Land diversion to DRDO

- The Ministry of Environment, Forest and Climate Change has issued forest clearance to DRDO, approving diversion of 150 hectares of forest land which includes **Krishna wildlife sanctuary** in A.P.
- The notification says that DRDO should transfer the funds for the net present value of the forest to be diverted to CAMPA and design a comprehensive wildlife management plan.
- The area diverted for DRDO, an equivalent mangrove and mudflat area contiguous to the sanctuary, should be notified and the work should be halted during the nesting season of Olive Ridley turtles.

Krishna Wildlife Sanctuary

- The sanctuary is part of the mangrove wetland which spreads across Krishna and Guntur districts of A.P.
- The sanctuary is also an estuary, located in the coastal plain of Krishna Delta.
- The region potentially holds one of the most significant populations of fishing cats in the world and it has the potential to become world's first reserve for IUCN identified endangered species including the fishing cat.
- Recently, Smooth-coated otter was sighted for the first time in the mangrove forest adjacent to the Krishna Wildlife Sanctuary.



Tadoba-Andhari Tiger Reserve

- Tadoba-Andhari Tiger Reserve is a tiger reserve in Chandrapur district of Maharashtra.
- It is the Maharashtra's oldest and largest national park.
- It is one of the India's 50 "Project Tiger" tiger reserves.
- Andhari, a minor river in Wainganga basin, flows through the tiger reserve.

Eco-bridges

- Telangana is the first state to have **eco-friendly bridges for the movement of tigers** over a canal, cutting across the tiger corridor.
- The bridge links Tadoba-Andhari Tiger Reserve (TATR) in Maharashtra with the forests in Telangana.
- It requires laying of fertile soil to raise grass and plants over the structure, so that fragmentation of the reserve forest is camouflaged.

National Centre for Sustainable Coastal Management (NCSCM)

- Ministry of Environment, Forest and Climate Change has formed a new institution, the “National Centre for Sustainable Coastal Management”.
- The centre is located in Chennai and established with the objective of creating a new National Coastal Mission.
- NCSCM’s core strength is the coastal system research for the well-being of coastal communities and promoting sustainable development.
- NCSCM’s researches will be useful for arriving at policy decisions and for capacity building of coastal communities.
- Along with other Ministries and State/UT governments, it will scientifically map the cumulative vulnerability of coastal environment to climate change and consequent threats to ecology, lives and livelihoods.

Neem Coated Urea

- Urea, the nitrogenous fertilizer when applied to soil, is hydrolysed into ammonia and then to nitrite and nitrate.
- This process is called **Nitrification**.
- Thus most plants take nitrogen in the form of Nitrates. When the process of nitrification is too rapid, nitrogen will escape to the atmosphere and plants will not be able to recover it from Urea efficiently.
- Coating Urea with Neem oil or Neem cake has been proved to be an effective natural inhibitor to the loss of nitrogen to the atmosphere.
- It slows down the process of nitrate formation and hence excess nitrate is not available for de-nitrification.
- Neem coating leads to more gradual release of urea, helping plants gain more nutrients and resulting in higher yields.
- There is also a lower underground water contamination due to leaching of urea and neem serves as a natural insecticide as well.
- Neem-coating will help check heavily subsidized urea’s pilferage to chemical industry and other uses such as making of adulterated milk.
- Government has mandated all indigenous producers of Urea to produce 100% of urea as Neem coated urea only.

Removal of Oil Spill

- Scientists have developed a simple, cheap and environment-friendly system that can effectively remove crude oil from sea which can pollute and even destroy marine ecosystems.

- The method is based on absorption by cellulose with porous carrier and impregnated with **oleogelator**, a cheap organic compound.
- Oleogelator congeal oils selectively from a biphasic mixture of oil and water and form a 3D fibre network through hydrogen bonding.
- Thus the oil trapped in the gelator form a rigid gel, turns the liquid oil into a solid one, which can be simply scooped out.
- The gelator renders the cellulose matrix hydrophobic. It does not suck in water as naked cellulose does.

Sixth Mass Extinction

- Scientists have warned that the Earth is undergoing its sixth mass extinction.
- The last extinction happened about 66 million years ago which wiped out non-avian dinosaurs.
- The current extinction is considered as the worst since 3 quarters of life on earth.
- More than 30% of vertebrate animals are declining in range and population.
- Tropical regions have seen the highest number of declining species and while fewer species are disappearing in temperate zones, the percentage is more or less the same as tropical regions.

Science and Technology

Space

Outer Space Treaty

- The Outer Space Treaty came into force in October 1967 and celebrates its 50th anniversary this year.
- It laid the foundation for an international space law.
- 107 countries are parties to this treaty, including India.
- It was formulated to bar its signatory countries from placing weapons of mass destruction in orbit of the Earth, on the Moon or any other celestial body or the outer space.
- The treaty aimed at making the countries use space exploration for peaceful purposes.
- However, the Treaty does not prohibit the placement of conventional weapons in orbit and thus some highly destructive attack strategies such as kinetic bombardment are still potentially allowable.

Juno Spacecraft

- Recently, NASA's Juno mission completed a close flyby of Jupiter and its Great Red Spot.
- The spacecraft was launched as part of the New Frontiers Program, in 2011.
- Its mission is to measure Jupiter's composition, gravity field, magnetic field, and polar magnetosphere.
- Jupiter's Great Spot is a 16,000-km wide storm monitored since 1830 and possibly existing for more than 350 years.
- Recently, the spacecraft reached "**Perijove**", the point at which an orbit comes closest to Jupiter's centre.

Saraswati – Supercluster of Galaxies

- A team of Indian scientists has reported the discovery of a ‘supercluster’ of galaxies and named it Saraswati.
- It is located four billion light years away from the earth.
- Galaxies are themselves made of billions of stars and planets, and a cluster typically contains several hundreds of these galaxies.
- Superclusters, a group of clusters of galaxies, are the largest structures of stars, planets and other heavenly bodies in the Universe.
- The Milky Way galaxy, of which the Earth is a very small member, is part of the Laniakea supercluster, which was identified only in 2014.

Phobos

- Phobos is one of the smallest moons in the solar system orbiting around the Mars.
- It is the only natural satellite in the solar system that encircles its planet in a time shorter than the parent planet’s day.
- Red planet Mars has another natural satellite Deimos.
- Phobos is the innermost and largest of the two.
- Recently, NASA’s Hubble Space Telescope has beamed back images of the moon Phobos in its orbital trek around the red planet.

NASA Balloons

- NASA is sending high-altitude balloons that will live-stream footage of the upcoming **total solar eclipse** on August 21.
- Total solar eclipses are rare and nobody has ever live-streamed aerial video footage of a total solar eclipse before.
- During the eclipse, Earth’s atmosphere will have the similarities to Mars atmosphere.
- During the total solar eclipse, the Moon will buffer the full blast of radiation and heat from the Sun blocking certain ultraviolet rays reaching the Earth.

Defence

Spike and Nag Missile

- **Spike** missile is an **Israeli** fourth generation anti-tank guided missile.
- It is developed and designed by Israeli company Rafael Advanced Defence Systems.
- India is looking to purchase it, which will compete with the **Nag** missile, developed by the Defence Research and Development Organisation (**DRDO**).
- Nag is the third generation anti-tank missile, also known as Prospina.
- According to Stockholm International Peace Research Institute, an independent global arms research institute, India is Israel's biggest arms market, buying 41 per cent of its export between 2012 and 2016.

Quick Reaction Surface to Air Missile (QRSAM)

- It is an indigenously developed short range surface to air missile.
- The missile has a strike range of 25 to 30 kms.
- It has an all- weather weapon system capable of tracking and firing, and it is the second developmental trial of the state-of-the-art missile with an aerial target.
- Recently, it was successfully test-fired from a test range from the launch pad Chandipur, along the Odisha coast.

Muntra

- Muntra is the country's first **unmanned tank** developed by Defence Research and Development Organisation (DRDO).
- Muntra is unmanned, remotely operated tank which has three variants such as Muntra-S, Muntra-M and Muntra-N.
- Muntra-S is the country's first tracked unmanned ground vehicle developed for unmanned surveillance missions.
- Muntra-M is for detecting mines, and Muntra-N is for operation in areas where there is a nuclear radiation or bio weapon risk.

INS Vagli

- It is a **Submarine** designed by **Russia** and commissioned into the Indian Navy in 1974 and decommissioned in 2010.
- After its decommissioning, Tamil Nadu government has decided to set it up as a maritime museum near the shore temple of Mamallapuram, a UNESCO World Heritage Site.
- In its recent report, the CAG has questioned the wasteful resource incurred in setting up the museum due to lack of proper planning.

Nuclear technology

Kovvada

- Kovvada is a new nuclear plant to be set up in the State of **Andhra Pradesh**.
- It is a proposed light water nuclear reactor in Srikakulam District.
- Recently, the land acquired for the construction of the nuclear power plant was handed over to Nuclear Power Corporation of India Limited (NPCIL).

Pressurized Heavy Water Reactor

- Government of India has accorded approval for the construction of 10 indigenous Pressurized Heavy Water Reactors (PHWRs).
- The reactors are planned at Kaiga in Karnataka, Gorakhpur in Haryana, Chutka in M.P, and MahiBanswara in Rajasthan.
- A PHWR is a nuclear power reactor commonly using un-enriched natural Uranium as its fuel, and heavy water (deuterium oxide, D₂O) as its coolant and moderator.

- Indian PHWRs: Tarapur (Maharashtra), Rawatbhata (Rajasthan), Kalpakkam (T.N), Narora (U.P), Kakrapar (Gujarat) and Kaiga (Karnataka).

Others

Hepatitis C

- Union Health Ministry has recently announced that National Action Plan on Hepatitis C will be ready by the end of this year.
- Hepatitis is an inflammation of the liver caused by blood borne Hepatitis Virus.
- There are 5 main hepatitis viruses, referred to as types A, B, C, D and E.
- The most common modes of infection are through exposure to contaminated blood or blood products and invasive medical procedures using contaminated equipments.
- It can also be transmitted sexually and be passed from an infected mother to her baby.
- Hepatitis C virus (HCV) is mostly transmitted through exposure to infective blood.
- The incubation period for Hepatitis C is 2 weeks to 6 months.
- Currently, there is no vaccine for hepatitis C; except Hepatitis C, all other hepatitis viruses have safe and effective vaccination to prevent them.
- Note: Hepatitis B is included in India's Universal Immunisation Programme (UIP).

Haemoglobinopathies

- Hemoglobinopathy is a kind of genetic defect that results in abnormal structure of one of the globin chains of the hemoglobin molecule.
- Common hemoglobinopathies include sickle-cell disease and Thalassemia, and other variant anaemia.
- Thalassemia usually results in underproduction of normal globin proteins, often through mutations in regulatory genes.
- Despite Public Health being a State subject, union Ministry of Health and Family Welfare has recently issued comprehensive guidelines for Haemoglobinopathies.
- The guidelines provide for screening of every pregnant woman during ANC, pre-marital counselling at the college level and onetime screening for variant anaemia for all children in class VIII.

Fluorosis

- Fluorosis is a slow, progressive, crippling disease which affects every organ, tissue and cell in the body.
- According to WHO, the fluoride concentration in drinking water should not exceed 1.5mg/l.
- Thus, fluorosis is caused by excessive exposure to fluoride, beyond a concentration of 1.5 mg/l.
- It adversely affects the foetal cerebral function and neurotransmitters. Reduced intelligence in children is associated with exposure to high fluoride levels.
- Dental fluorosis is a defect in the tooth enamel caused by excessive fluoride consumption, is not treatable and the strains are permanent.

- Skeletal fluorosis is developed by the disturbance of calcium metabolism in the formation of bones in the body. It results in the softening and weakening of bones, resulting in deformities.
- The main sources of fluoride in groundwater are the rocks such as charnockite, quartzite, pegmatite, laterite, etc.

Avian Influenza

- India has declared itself free from Highly Pathogenic Avian Influenza (H5N1 and H5N8) and has notified it to the OIE (World Organisation for Animal Health).
- Influenza is an acute viral infection of the respiratory tract and is caused by three types of **RNA viruses** called influenza types A, B and C.
- Influenza type A viruses are known to infect people, birds, pigs, horses, whales, seals and other animals, but wild birds represent the natural hosts for these viruses. Thus it is called as **bird flu virus**.
- H5N8 and H5N1 are subtypes of the Influenza A virus and are considered as highly pathogenic.
- H5N1 virus is transmitted from infected birds to animal species including mammals through their saliva, blood, feces. etc.

Sohum

- Sohum is the **indigenously developed newborn hearing screening device**.
- The aim is to screen two percent of hospital-born babies to check for hearing response in the first year.
- This innovative medical device has been developed under the School of International Biodesign (SIB) programme of Department of Biotechnology (DBT).
- SIB is a flagship Programme aimed to develop innovative and affordable medical devices as per clinical needs of India and to train the next generation of medical technology innovators in India.
- This Programme is implemented jointly by AIIMS and IIT Delhi in collaboration with International partners.

M sand

- The excessive mining of river bed to meet the increasing demand for sand in construction industry has led to ecological imbalance.
- Manufactured sand (M sand) is a substitute of river bed sand for construction purposes.
- M sand is produced from hard granite stone by crushing.
- The crushed sand is of cubical shape with rounded edges, washed and graded to as a construction material.
- It can be dust free and the sizes of m-sand can be controlled easily so that it meets the required grading for the given construction.
- The cost of construction can also be controlled by the use of manufactured sand as an alternative material for construction and it can be made readily available.

Index and Reports

Global Witness

- Global Witness is a London and Washington, D.C based advocacy group that works on the intersection of natural resource extraction and human rights.

- In its recent “Global Witness Report”, it ascertains that 2016 has the highest annual number of environmental activists being killed.
- Brazil is the world’s deadliest country in terms of sheer numbers killed for the protection of Amazon’s natural wealth, and Honduras remains the most dangerous country per capita over the past decade.
- India saw a threefold increase in killings but Latin America remained the deadliest region with 60% of the world’s deaths of environmental activists.

Global Retirement Security Ranking 2017

- Recently, the fifth annual Global Retirement Index ranking from Natixis Global Asset Management was released.
- The ranking creates an overall retirement security score for each country from 18 performance indicators that address finances, health care, material well-being, and quality of life.
- Norway has topped the ranking, followed by Switzerland and Iceland.
- India ranked 43rd place with no change from the previous year rank.
- USA and Austria saw the biggest annual declines in the year.

Digital Evolution Index

- The Index is a comprehensive research that tracks the progress that countries have made in developing their digital economies and integrating connectivity into the lives of billions.
- The Index measures four key drivers - supply, consumer demand, institutional environment, and innovation.
- According to the Digital Evolution Index, 2017 India has been categorised under the "break out" segment among 60 countries.
- The 'break out' segment refers to countries that have relatively lower absolute levels of digital advancement, yet remain poised for growth and are attractive to investors by virtue of their potential.

Sustainable Development Goals Index

- India is ranked 116 out of 157 nations on a global index that assesses the performance of countries towards achieving the 17 ambitious SDGs (Sustainable Development Goals).
- It is produced by Sustainable Development Solutions Network (SDSN).
- Sweden leads the list, followed by Denmark and Finland.
- India is ranked behind countries such as Nepal, Iran, Sri Lanka, Bhutan and China.

Customer Satisfaction Index Survey

- Raipur’s Swami Vivekananda Airport is ranked first in Customer Satisfaction among 49 airports in the country.
- The latest Customer Satisfaction Index Survey was conducted by an independent agency commissioned by AAI for the period of Jan-June, 2017.
- Raipur is followed by Udaipur, Amritsar and Dehradun airports. Raipur also tops in the previous period (Jul-Dec, 2016).

- The survey covers a wide range of parameters like transportation, parking, passenger facilities, cleanliness, etc.

India Innovation Index

- It is launched by Confederation of Indian Industry (CII), NITI Aayog, and Department of Industrial Policy & Promotion (DIPP).
- The index will rank states on innovations through country's first online innovation index portal.
- The India Innovation Index Framework will be structured based on the best practices followed in Global Innovation Index (GII) indicators.
- The Global Innovation Index (GII) is co-published by World-Intellectual Property Organization (WIPO), Cornell University and INSEAD with CII as a Knowledge Partner.
- It has been ranking world economies including India since 2007 according to their innovation capabilities.
- India currently ranks 66th out of 128 countries in the Global innovation Index (GII), 2016.

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