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G.S PAPER II

1. POLITY

1.1 Conflicts between Delhi Government and LG

What is the issue?

SC is looking into the problem of jurisdictional conflicts between Delhi's elected government and the lieutenant governor (LG).

What is Article 239AA?

- Delhi, although a union territory, is not administered by the president acting through the LG under Article 239.
- It is administered under Article 239 AA.
- Article 239 AA was incorporated in the Constitution in 1992.
- It creates a "special" constitutional set up for Delhi.
- It has provisions for popularly elected assembly, a council of ministers responsible to the assembly and a certain demarcation of responsibilities between the LG and the council of ministers.
- As per Article 239 AA (3) (a), the Delhi assembly can legislate on all those matters listed in the State List and Concurrent List as are applicable to union territories.
- The public order, police and land are reserved for the LG.

What is the problem?

- This special set up worked well mainly because the same party held office at the Centre as well as in Delhi for much of the time.
- Things changed when different government ruled the city and the centre.
- This was complicated when the Delhi High Court judgment declared that the LG is the only decision-making authority in the NCT.
- Presently, SC is looking into two main issues:
    1. Whether the elected government is the final authority in respect of matters assigned to it by the constitution &
    2. Whether the LG has primacy when a difference of opinion arises between him and his council of ministers on matters of governance.

Why should Council of Ministers be given more power?

- **Final Authority -** Under Article 239 AA (4), the council of ministers has the executive power to execute all matters in respect of which the assembly has the power to make laws.
- Article 239 AB (a) says "if the administration of the NCT cannot be carried on in accordance with the provisions of Article 239 AA," the president can dismiss the council of ministers.
- Further, Article 239 AA (b) says that the council of ministers shall be collectively responsible to the assembly.
- So, the council of ministers is responsible for Delhi's administration and if it fails in its functions, it will be removed by the president.
- But the council of ministers cannot be removed for the breakdown of the constitutional machinery unless they are vested with the power to take final decisions on matters of administration.
- It is also absurd to think that the council of ministers will be removed for the failure of the LG.
- So vesting of all powers in the LG in respect of matters which come within the jurisdiction of the assembly is not in conformity with the scheme of Article 239 AA.
- **Primacy -** A LG, motivated by political considerations, could disagree with many decisions of elected government and refer them to the president.
- So such a provision in the proviso to Clause (4) of Article 239 AA virtually nullifies the executive power vested in the council of ministers.
- After all, the purpose of the constitutional amendment was to provide a democratic government for Delhi and not to enhance the powers of the LG.

- So in regard to matters of governance other than that in the discretionary list, the council of ministers should be left free to exercise the executive power.

1.2 Courts Gagging the Media

Why in news?

- A special CBI Court recently issued a gag order prohibiting the press from reporting on the court proceedings of a fake encounter case.
- In another case, Allahabad High Court gagged the media from reporting on an ongoing case concerning hate speech by the CM of Uttar Pradesh.

What is the justification?

- The orders were enabled by the Supreme Court itself.
- In 2012, the Supreme Court held that in certain circumstances, courts could pass "postponement orders" barring coverage of specific judicial proceedings.
- The court framed the issue as requiring a balancing of two competing rights: the right to free speech, and the right to a fair trial.
- Observing that sometimes excessive publicity could jeopardise a fair trial, the court held that to the extent it was reasonable and proportionate, "prior restraints" on court reporting could be imposed.
- Allahabad High Court cited that the media reports court proceedings inaccurately to justify the gag order.

Is the justification fair?

- In a Jury system, guilt or innocence is decided by a jury of twelve who do not possess specialised legal training
- The idea that "media trials" might distort the outcomes of cases makes sense only in such a system.
- In India we abolished jury trials more than 40 years ago, and it is judges now who decide cases.
- Judges, by definition, are not only supposed to apply the law but also have to have the relevant training and temperament to be regardless of the public.
- The 2012 SC order also failed to adequately limit the kinds of cases in which these exceptional "postponement orders" could be passed.
- It also failed to limit the duration for which they could be passed.
- This has given ample space for abuse as happened in the recent orders.

What should be done?

- Media misreporting of court proceeding can be rectified by making the written transcripts and recordings of court proceedings available to the public.
- In some situations, a temporary halt on reporting could be justifiable.
- But the bar should be limited to a single hearing, and only in the most exceptional of situations.

1.3 Disqualification of Rajya Sabha Members

Why in news?

Two members of the Rajya Sabha belonging to JD(U) party were recently disqualified.

What are the grounds for disqualification?

According to Tenth Schedule introduced by 52nd Constitutional Amendment 1985, the grounds are-

- If a **Members of a Political Party** voluntarily resigned from his party or disobeyed the directives of the party leadership on a vote or when does not vote / abstains as per party's whip.
- If a Independent Member joined a political party.
- If a Nominated members join a party after six months.

What was the reason for the current decision?

- The party accused the two members of indulging in anti-party activities, including attending rallies of other parties.
- On the grounds, the party filed a petition seeking the members' expulsion from Rajya Sabha.

- The decision was taken by The Chairman of the Rajya Sabha under the Tenth Schedule of the Constitution.
- It was justified on the basis of the argument that the members voluntarily gave up the membership of their party when they attended political rallies organised by rival parties.

Why are the shortcomings in the decision?

- The disqualification of dissident was done in needless haste.
- The Chairman justified that all such cases should be disposed of within 3 months as any delay would be equivalent to violating the anti-defection law.
- But neither Mr. Yadav nor Mr. Anwar had disobeyed a whip or posed a danger to the stability of any government.
- So there was no need for fast-tracking of the disqualification process.
- The fact that the Chairman did not exhaust all the procedural avenues questions the ruling of political shade.

What should be done?

- The Chairman could have taken the assistance of the privileges committee before deciding the case.
- The Tenth Schedule is meant to curb opportunistic party-hopping.
- The law works best as an insurance against violation of the people's mandate for a party.
- It should not be used to suppress dissent, whether inside or outside the House.

1.4 Lack of Economic Oversight in the Parliament

What is the issue?

- Indian Parliament has only limited options to oversee Macroeconomic issues.

- So the Parliament requires a specialised committee concentrating on the broader economic issues.

How parliament controls finance?

- **Union Budget -** Annual financial statement, presented by means of the Finance bill and the Appropriation bill has to be passed by both the Houses before it can come into effect from the financial year (Article 112).
- **Imposition of tax -** Any imposition of tax or collection of revenue should be done only by the authority of law (Article 265).
- Revenue collected without the authority of law will be seen as forcible exaction.
- **Consolidated Fund of India (CFI) -** All revenues received or loans raised by the government are deposited in the CFI.
- Parliamentary sanction is necessary for any expenditure made from the CFI (Article 66).
- **Financial Emergency** - President can declare financial emergency only under the approval by the Parliament (Article 360).

What are the issues with parliamentary mechanisms?

- Parliament uses two mechanisms for monitoring the national economy.
- **Debate in the House -** This is the most common way of highlighting issues.
- But there is hardly ever a focussed debate on macroeconomic and monetary policy issues.
- The last time a discussion reviewed the economic situation was in 2008.
- Over the years the duration of budget discussions has been steadily decreasing.
- During Parliament's first decade, the debate on the budget lasted for an average of 123 hours.
- Now this number has come down to 40 hours.
- The other occasion when economic issues come up for discussion is when MPs debating rising prices in the country.
- Usually such debates remain inconclusive and follow a pattern of blame games and political rhetoric.
- **Parliamentary committees -**Parliament has three finance committees namely Public Accounts, Estimates, and Public Undertakings committee.
- These committees focus on holding specific government ministries accountable.
- They scrutinise the finances, legislation, and working of ministries.
- But their mandate does not extend to scrutinising cross-cutting macroeconomic issues.
- The committee mostly examines policy issues and legislation being dealt with by the finance ministry.
- So India needs a Nodal Standing Committee on National Economy.

What will be its role?

- The committee would help both government and parliament in orchestrating opinion on important policy issues for building a national consensus.
- It could invite the RBI Governor and other government functionaries like the chief economic adviser to testify and enrich its proceedings.

1.5 RTI and Judiciary

Why in news?

Delhi High Court recently held that RTI Act could not be resorted to in case the information sought for is related to judicial function of the Supreme Court.

What is the case?

- The court's order came on a plea by the Supreme Court of India, through its Registrar.
- It had challenged an earlier order of the Central Information Commission (CIC).
- The CIC order had directed the apex court to answer the queries of a litigant as to why his SLP (Special Leave Petition) was dismissed.
- The SLP was regarding the termination of his services as a teacher, the challenge for which in the Central Administrative Tribunal (CAT) was dismissed.
- His petition in the high court and appeal in the apex court also failed, and the review petitions were also dismissed.
- Thereafter, he sought information under the RTI as to why his SLP was dismissed.
- And contended that the same had been decided against the principles of natural justice.

What is the High Court's rationale?

- Right To Information (RTI) Act would not override the *Supreme Court Rules* (SCR), when it comes to dissemination of information.
- Court emphasized that the judicial functioning of the supreme court of India is separate/ independent from its administrative functioning.
- Consequently, for administrative functioning of the Supreme Court, information can be provided under the RTI Act.
- And for judicial functioning of the Supreme Court, the Supreme Court Rules is the mechanism.
- It includes right of inspection, search of copies and would be applicable for access to the documents filed on the judicial side.
- The court denied the arguments that there was an inherent inconsistency between SCR and RTI Act.
- The high court further said that a Judge speaks only through the judgments or orders passed.
- And cannot be expected to give reasons other than those that have been enumerated in the judgment or order.
- If any party feels aggrieved by the judgment passed, the remedy available is to challenge the same by a legally permissible mode.
- It stressed that the legislature could not make law to deprive the courts of their legitimate judicial functions conferred under the procedure established by law.

What are the defects with SCR?

- The Supreme Court Rules are not as effective a mechanism to access information as the RTI.
- Unlike the RTI Act, the SCR do not provide for:
    i.   a time frame for furnishing information
    ii. an appeal mechanism
    iii. penalties for delays or wrongful refusal of information
- The Rules also make disclosures to citizens dependent upon "*good cause* shown".
- In sum, the Rules allowed the Registry to provide information at its unquestionable discretion, violating the text and spirit of the RTI.
- It is thus argued that the Supreme Court Rules are inconsistent with the RTI Act.

What are the implications of the ruling?

- The whole issue is that the Supreme Court Registry wants to provide information at its absolute discretion.
- The high court ruling signifies the continuing trend of disregard for the RTI by the judiciary.
- The judgment thus seems to be strengthening a culture of opacity in the higher judiciary.

Quick Fact

Supreme Court Rules

- Supreme Court Rules (SCR), 1966 have been framed under Article 145 of the Constitution of India.
- They provide for regulating the practice and procedure of the Court, and the rules have the effect of law.
- SCR provide for a mechanism for inspection and search of pleadings on payment of prescribed fees.
- The rules were re-issued with minor changes in 2014.

Good cause

- Good cause is defined in the legal sense as a sufficient reason for a judge to make a ruling.
- It denotes adequate or substantial grounds or reason to take a certain action, or to fail to take an action prescribed by law.
- The term "good cause," however, is a broad one, and what constitutes a good cause is usually determined on a case-by-case basis and is thus relative.

1.6 Verdict in the 2G Spectrum Case

Why in news?

A CBI court recently acquitted all the accused in the 2G spectrum allocation scam case.

How did it all begin?

- In September 2007, the Department of Telecom (DoT) issued just a week's time for companies to apply for mobile phone licences.
- As spectrums were priced artificially low, a mad scramble followed and 575 applications were received, most of which were from little known firms.
- The DoT then issued 122 licences by adopting a controversial 'first-come first-served policy', which privileged those who applied at the earliest.
- A CAG report in 2008 on 2G spectrum allocations, estimated a loss of R1.76 lakh crore to the exchequer.
- Consequently, in 2010, Mr. Raja resigned as telecom minister and he was later arrested in early 2011.
- Notably, the Delhi High Court set up a special court to fast-track the case.

How did the case proceed?

- CBI filed its chargesheet and subsequently DMK MP 'Ms. Kanimozhi' and the MD of "Kalaignar TV" 'Mr. Sharad Kumar' were also arrested in late 2011.
- CBI also filed an FIR against another DMK leader and former telecom minister Dayanidhi Maran and his brother kalanithi Maran.
- Overall, the trial began against 17 people, that included the telecom executives of Unitech, Swan Telecom and Reliance Anil Dhirubhai Ambani Group.
- In early 2012, Supreme Court cancelled all the 122 telecom licences allocated to nine companies in 2007, by holding 'first-come, first-served' policy at fault.
- Income-Tax department, in 2013, submitted to the SC, the recordings of 5,800 tapped controversial phone conversations between corporate lobbyist Niira Radia and politicians.
- Enforcement Directorate (ED), in its 2014 chargesheet, accused Mr. Raja, and Ms. Kanimozhi of money laundering.
- In 2015, CBI records in court that the Mr. Raja "misled" the then PM Manmohan Singh on policy matters pertaining to 2G spectrum allocation.
- Finally, the special court concluded its hearing in April 2017, and it recently pronounced its final order, which aquitted all the people.
- It remains to be seen if the case is proceeded ahead with appeals against the current order in higher courts (HC and SC).

What are the policy spin-offs from the case?

- SC's order that cancelled all the 122 2G licences issued in 2008 was perceieved as a judicial over-reach into the policy domain.
- Hence, it moved a presidential reference with eight questions, that included the rationale of "auction being the only mode for allocation of resources".

- On hearing the presidential reference, by five-judge constitution bench, the SC concluded upholding the primacy of the government in the policy domain.
- It also explicitly stated that auctions is not a must for all resource allocations and that maximisation of revenue cannot be the sole criterion in all situations.

1.7 Analysing the 2G Case

Why in news?

While the special sessions court has not convicted anyone for their involved in the alleged 2G scam, multiple questions on policy irregularities remain unanswered.

Was FCFS policy regressive?

- The controversial First-Come-First-Served (FCFS) policy is said to be the crux of the problem that facilitated malpractice.
- While accused argue that it was the norm back then, some cellular licences were actually auctioned as early as 2001.
- Significantly, the Telecom Regulator TRAI's chief Nripendra Misra argued for auctioning some bands of spectrum in 2007, to prevent undue profiteering.
- He attempted to place some safeguards like sale restrictions on licences for at least 3 years after the allocation of the licences.
- Considering that large number of applicants (575) were chasing limited spectrum bands, some voices within the cabinet too vouched against FCFS.
- Mr. Raja seems to have ignored almost all these concerns and proceeded with FCFS to allocate 122 licences, without even revising the old rates.

What were procedural flaws?

- **Immoral Designs -** Even if FCFS was conceptually accepted, the repeated change in deadlines for licence applications in September 2007, spells clear malpractice.
- Extremely short windows were given for submission of various documents, which was clearly intended to eliminate genuine applicants.
- Notably, some applicants seemed to have been aware of the upcoming policy changes in advance, which is vindicated by their pre-dated bank drafts.
- Also, even the FCFS wasn't followed genuinely, as late applicants like 'Swan telecom' were allocated favoured spectrums, whereas early ones like 'Spice' were pushed back in the queue.
- **Fabricating Documents -** Strikingly, as many as 85 of the 122 licences did not qualify even by terms of the outlined FCFS policy.
- Also, for some firms in the auction, their clause of incorporation was altered in the last minute to classify them as telecom companies to enable eligibility.
- Many also fudged their minimum finances and tampered with their ownership data to become eligible.
- Notably, these companies acquired spectrum bands not to operate telecom but to make a quick buck through an immediate resale after the auction.
- The subsequent spectrum resale deals, like the "Etisalat and Swan" and "Telenor and Unitech" agreements only re-iterated this, which was exactly what the TRAI chief was trying to prevent.

2. GOVERNMENT BILLS, POLICIES, AND INTERVENTIONS

2.1 Transgender Persons (Protection of Rights) Bill

Why in news?

The Centre has decided to re-introduce the original Transgender Persons (Protection of Rights) Bill, 2016, without the adopting recommendations of the Parliamentary Standing Committee.

How has the legislation evolved?

- **SC ruling** - In February 2014, the Supreme Court passed a landmark judgement in the *NALSA vs. Union of India case*.
- It recognised that transgender persons have fundamental rights, and paved the way for enshrining the rights of transgenders in law.

- The apex court deemed that individuals had the **right to the self-identification** of their sexual orientation.
- It also called for affirmative action for transgenders in education, primary health care and social welfare schemes.
- **Private Member Bill - Rights of Transgender Persons Bill, 2014**, was introduced as a Private Member's Bill in the Rajya Sabha by Tiruchi Siva.
- It was unanimously passed in the Rajya Sabha but was never debated in the Lok Sabha.
- The Bill passed in the Rajya Sabha had many progressive clauses.
- These include –
    i. the creation of institutions like the national and State **commissions for transgenders**
    ii. setting up **transgender rights courts**
- **Government Bill** – Following this, government drafted its own bill, Rights of Transgender Persons Bill, in 2015 and introduced it in the Lok Sabha in 2016
- The remedial measures to prevent sexual discrimination in private member bill were done away with by the government
- **Standing Committee** – As, the bill had many contentious provisions, it was sent to the standing committee on social justice and empowerment.
- **Reintroduction** - Ignoring the recommendations of the Standing Committee, the original version of the bill is set to be re-introduced now.
- This legislation seems to undermine their right to life and livelihood instead of safeguarding their interests.

What are recommendations of standing committee?

- **Definition** - The 2016 Bill identifies transgenders as being "partly female or male or a combination of female and male or neither female nor male".
- The ambiguity in the definition of the "third sex" lends itself to misinterpretation.
- Section 377 of the IPC that criminalises non-heterosexual sex draws many transgenders into its net.
- This definition is also departure NALSA judgment to identify transgenders outside the male-female binary.
- It is also against the 2014 bill's intention to cleanse society of the **stigma**.
- The Standing Committee draws attention to this inadequate definition which is founded on a heterosexual worldview.
- **Identification** - 2016 Bill mandates transgenders to submit themselves to a medical examination for recognition.
- This will be done by a District Screening Committee comprising of a Chief Medical Officer, a psychiatrist, a social worker, and a member of the transgender community.
- This is in stark contrast to the 2014 Bill that gives individuals the right to self-identify their sex and gender.
- **Social protection** - The central **reservation provision** in 2014 Bill of 'earmarking jobs for transgenders' is diluted in the 2016 Bill with 'equal opportunity in all spheres of life'.
- **Grievance redressal** - Establishments consisting of hundred or more persons is now mandated to designate a complaint officer to deal with any violation of the Act.
- This comes as a provision to replace the setting up of central and State transgender rights courts as prescribed in the 2014 Bill.
- Other recommendations like extending civil rights like marriage, divorce, and adoption to transgenders, including transgenders in workplace sexual harassment policies and counselling services to were also omitted by the Centre.

2.2 Draft Space Activities Bill, 2017

Why in news?

The Department of Space has released a draft Space Activities Bill, 2017.

What are the key provisions?

- The provisions of the legislation shall apply to every citizen of India.
- And also to all sectors engaged in any space activity in India or outside India.
- **Regulatory mechanism** - The central government is responsible for setting mechanisms and promoting space activity.
- This includes exploration and use of outer space, and development of the sector.
- The central government can:
    i. grant, transfer, or terminate licenses to any person for commercial space activities
    ii. provide professional and technical support, and authorisation to launch or operate space objects

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   iii. regulate the procedures for conduct and operation of space activity by <u>monitoring</u> the conformity with international space agreements to which India is a party

   iv. ensure <u>safety requirements</u> and <u>investigate</u> any incident or accident in connection with the operation of a space activity

- **Licences** - A non-transferable licence shall be provided by the Central Government to any person carrying out commercial space activity.
- A license granted by the central government includes -
  - i. permission for the central government to <u>inspect</u> any space activity and documents related to space activity
  - ii. obligation on the licensee to insure himself/herself against any liability incurred due to any activity authorised by the license
- **Liabilities** - A licensee should compensate the central government against claims brought against the government.
- This would be regarding damages arising out of commercial space activities covered under the license.
- **Penalties** - The draft Bill provides for penalties in case of:
  - i. <u>unauthorised</u> commercial space activity
  - ii. furnishing <u>false information</u> or documents
  - iii. causing <u>environmental damage</u>
  - iv. entry into <u>prohibited areas</u>
  - v. <u>disclosure</u> of restricted information
- **Protection** of action taken by the central government i.e. no legal proceedings can lie against the central government with respect to anything done in good faith in pursuance of space activity.
- **IPR** - Intellectual property rights developed during the course of space activity will be protected under the law.
- Further, any intellectual property right developed onboard a space object in outer space will be deemed to be the property of the central government.

What does the bill aim for?

- Currently, space activities are regulated by policies such as the Satellite Communication Policy, 1997 and Remote Sensing Data Policy, 2011.
- The proposed Bill addresses the need for a legal environment for orderly performance and growth of the space sector.
- It aims at encouraging both the public and private sectors to participate in the space programme.
- The Bill specifically facilitates for the participation of non-governmental/private sector agencies in space activities in India.

2.3 Redrafted Bill on Passive Euthanasia

Why in news?

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

How did the legislation evolve?

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

What does the new bill provide for?

- **Approval Procedure -** Hospitals have to set up <u>approval committees</u> for considering cases of passive euthanasia.
- These panels will decide on applications of "Living will" which is a written document by a "competent" terminally ill patient.
- This will allow them to explicitly state their desire against life-prolonging measures when recovery is not possible.
- For incompetent terminally ill patients, unanimous consent of near relatives has been suggested to apply for withdrawal of medical treatment.
- **Other Provisions –** Any distortion of facts before such panels may lead to a <u>maximum of 10 years in jail and a fine of up to Rs 1 crore</u>.
- The draft provides for pain reducing medication (<u>palliative care</u>) even after passive euthanasia is approved.
- It clearly stated that it did not encourage active euthanasia which is the acceleration of death by using lethal means.
- The bill also provides for the pro<u>tection of medical practitioners and care givers,</u> by absolving them of guilt in acts of passive euthanasia.

2.4 Indian Institutes of Management (IIM) Bill, 2017

Why in news?

The Rajya Sabha has recently passed the Indian Institutes of Management (IIM) Bill, 2017 which was earlier passed by the Lok Sabha.

What are the highlight provisions?

- **Autonomy -** India has 20 Indian Institutes of Management in all, functioning as elite Business-schools.
- The legislation seeks to grant <u>greater administrative, academic and financial autonomy</u> to these IIMs.
- The institutes will be made free of government interference and will now be board-driven.
- Consequently, the <u>power to appoint</u> the chairperson as well as, the director will now lie with the board of the institutes.
- It means neither the HRD ministry nor the President of India will have any say in the selection of top executives and the faculty members.
- The government will also not have any say in the <u>fees</u> charged at these institutes.
- The Board will now reserve the <u>power to review the performance</u> of each IIM and will be the principal executive body.
- The bill also has provisions for the <u>representation of SC, ST and women in the board</u> of governors.
- **Degrees -** Until now, the IIMs have not been governed by an act of Parliament or overseen by the University Grants Commission (UGC).
- So they were awarding only postgraduate diplomas to its students.
- The legislation would make IIMs institute of national importance, granting them the power to <u>award full-fledged degrees instead of diplomas.</u>
- **Regulation -** The bill contains a provision for a "<u>Coordination Forum of IIMs".</u>
- But it will have limited power and will work as an advisory body.
- It will be a forum of 33 members, and its chairman will be selected by a search-cum-selection committee.
- The HRD minister will not head it.
- The central government may frame rules to give additional powers and duties to IIM boards.
- It will also decide on the terms and conditions of service of directors, although the appointments will be made by the boards.
- It will notify the IIM coordination forum to be headed by an eminent person.
- The accounts of the IIMs will now be <u>audited by the Comptroller and Auditor General (CAG)</u> of India.

What are the shortfalls?

- The bill is seen as a needed reform in the education sector.
- However, there is a concern that the government would control the IIMs via the coordination forum.
- Besides, the government is fails to clearly spell out the process of appointing the board of governors that will control IIMs now.
- The bill is also silent on any reservations in the faculty recruitment.
- There is also a concern with IIMs being granted the complete control over the fee structure.

- There are now demands for similar independence from government control to the Indian Institutes of Technology (IITs) and other top schools in the government and private sector.

2.5 Muslim Women (Protection of Rights on Marriage) Bill, 2017

What is the issue?

- Lok Sabha has passed the Muslim Women (Protection of Rights on Marriage) Bill, 2017.
- The Bill is abound with a number of internal contradictions raising questions on the very purpose and intent.

What are the highlight provisions?

- **Definition** - The Bill defines talaq as talaq-e-biddat (instant triple talaq) or any other similar form of talaq pronounced by a Muslim man resulting in instant and irrevocable divorce.
- It makes all forms of declaration of talaq to be void i.e. not enforceable in law.
- **Offence and penalty** - The Bill makes declaration of talaq a cognizable and non-bailable offence.
- A husband declaring talaq can be imprisoned for up to 3 years along with a fine.
- **Allowance** - A Muslim woman against whom talaq has been declared is entitled to seek subsistence allowance from her husband.
- This applies to the woman and her dependent children.
- The amount of the allowance will be decided by the Magistrate.
- **Custody** - A Muslim woman against whom such talaq has been declared, is entitled to seek custody of her minor children.
- The determination of custody will be made by the Magistrate.

What are the anomalies?

- **SC judgement** - The Supreme Court, earlier, invalidated the triple talaq practice by calling it arbitrary and unconstitutional.
- Logically, the pronouncement of talaq-e-biddat does not dissolve the marriage, and this is the law of the land under Article 141.
- Contradictorily, the Bill presumes that the "pronouncement" of talaq can instantaneously and irrevocably dissolve the marriage.
- The bill thus seems to be misreading the SC's judgment on talaq.
- **Offence** - After rendering talaq-e-biddat inoperative, considering it a cognisable and non-bailable offence seems illogical.
- It raises questions on the validity of the law that criminalises an act after conceding that it does not result in a crime.
- **Post-divorce issues** - Making provisions on post-divorce matters like subsistence allowance and the custody, when the pronouncement (instant talaq) itself does not dissolve the marriage appear baseless.

Why is this a case of over-criminalisation?

- **Necessity** - Criminal law is not necessarily a choice but a necessity.
- It should be used only as a "last resort" and only for the "most reprehensible wrongs".
- Excessive use of criminal law for purposes it is ill-suited to tackle is the harsh reality of a modern state.
- **Morality** - The realm of private morality and immorality falls more within the individual and social sphere.
- Regulating it should largely come from the deliberations of the society and, making it the law's business may not bring in the desired effect.
- In this context, criminalising triple talaq would hardly help in building the moral commitments of Muslim husbands.
- It is not the function of a civilised legal system.

2.6 Timely Wages to MNREGA Workers

Why in news?

There is an ongoing PIL in the Supreme Court between Swaraj Abhiyan versus Union of India.

What is the PIL about?

- The PIL is about the lack of functioning of social security systems like the National Food Security Act (NFSA) and the National Rural Employment Act (NREGA).

- The NREGA mandates that every worker must receive her wages within 15 days of completion of a workweek.
- If this condition is not met, a delay compensation is to be paid at a rate of 0.05% per day of delay.
- In spite of this merely 21% of the sampled transactions were paid within the stipulated 15-day period.

How is the payment made?

- Under the National Electronic Fund Management system (Ne-FMS), upon completion of a work week, a Funds Transfer Order (FTO) is generated at the block/ panchayat.

- Then the Centre approves the FTO digitally.

- Then the money is transferred directly to the individual workers' account.

- The time taken till FTO generation is the state's responsibility and the time taken thereafter is the Centre's responsibility.

What constitute the delays?

- **Definition of Delay -** The current definition of the delay calculates delay days only until the FTOs get generated at the block/ panchayat.
- The times taken by the Centre to process the FTOs and release wages are not getting accounted as delays.
- **Payment Infrastructure -** In an attempt to improve the payments process, the government migrated to the Ne-FMS in April 2016.
- Prior to the Ne-FMS system, the state governments would use a contingency/ revolving fund to make the payments until the Centre sanctioned the funds.
- The current payments system is completely centralised.
- The state governments cannot pay the workers even if they intend to.

What should be done?

- Not only has the government violated the law but also the worker's rights to timely wages.
- The payments infrastructure requires seamless coordination between the Centre, states, payment agencies, and the administrative bodies.
- There should also be a clearly defined responsibilities for each one of them.

3. SOCIAL JUSTICE

3.1 National Crime Records Bureau Report

Why in news?

The National Crime Records Bureau has released its latest report on the data for the year 2016.

What are the highlights?

- **Children** - There is an overall increase in crimes against children.
- The all-India rate for crimes against children stood at 24.
- The *rate of crimes* against children was the highest in Delhi, followed by Chhattisgarh and Madhya Pradesh.
- Among cities, Delhi and Mumbai accounted for a major chunk of the offences against children.
- Particularly, the year 2016 has registered a sharp spike (of nearly 80% compared to 2015) in cases of rape against children.
- The highest rise in numbers has been registered in Uttar Pradesh where the figures have tripled.
- Notably, this is for the first time that such a sharp increase in sexual assaults on children has been registered.
- The most numbers of rape cases under IPC and POCSO were reported in Maharashtra, Odisha, MP, UP, and Tamil Nadu; the latter three have registered very high increases compared to last year.
- **Women** - The year 2016 has registered an overall rise of about 3% in crimes against women.
- Strikingly, incidents of rape against women have risen far more sharply than other crimes against women, recording a rise of about 12%.
- The highest number of rapes has been reported from MP, UP and Maharashtra.
- The majority of cases categorised as crimes against women were reported under 'Cruelty by husband or his relatives'.
- West Bengal, Rajasthan and UP have reported the highest number of incidents of 'cruelty by husband'.

- Other crimes include Assault on woman with intent to outrage her modesty, Kidnapping and abduction, Rape, Voyeurism, Stalking, etc.
- In terms of rate of crime against women Delhi reported the highest compared to the national average rate.
- It is followed by Assam, Odisha, Telangana and Rajasthan.
- Among cities, Delhi topped the charts again, followed by Lucknow, Jaipur, Patna and newly, Nagpur.
- **Dalits** - Data on crimes against Dalits draws a distinct pattern of similarity between rural and urban spaces.
- This breaks the prevalent notion of blurring caste lines in urban spaces.
- City-wise data on atrocities against Dalits shows that a major chunk of crimes against Dalits involves the violation of women.
- Uttar Pradesh has recorded the highest number of crimes against women among dalits.
- It was highlighted that crimes against Dalits were not solely registered under sections of the SC/ST (Prevention of Atrocities) Act.
- Cases are categorised and registered under the usual Indian Penal Code, denying the rights offered under exclusive legal mechanisms.
- Coimbatore (TN), Kolkata and Chennai have witnessed the least number of cases of caste atrocities in 2016.
- Kanpur, Ahmedabad, Ghaziabad were, however, in the top ten cities where the maximum number of caste atrocities were registered.
- Lucknow has witnessed a fourfold increase in instances of crimes against Dalits since 2014.

Quick Facts

NCRB

- National Crime Records Bureau is an attached office of the Ministry of Home Affairs.
- It was established in 1986 with a mandate to empower Indian Police with information technology solutions and criminal intelligence.
- It must be noted that the NCRB figures merely reflect the number of crimes registered by the police.
- These may or may not reflect the actual situation on the ground as generally well-policed states have a high crime rate as the police ensures the registry of all cases.

Rate of crime

- It calculates incidents per one lakh people of the population.
- Thus it is a better determinant for the prevalence of a crime in a particular region.

3.2 Disability Rights

What is the issue?

- The International Day of Persons with Disabilities is being observed on December 3.
- In this context, it is imperative to assess the progress of legal protections in place and their actual effect in the society.

What are the legal protections?

- **International** - The disability rights movement gained momentum in the 1970s when disability was started to be seen as a human rights issue.
- The UN Convention on the Rights of Persons with Disabilities (UNCRPD), 2006 was a significant step in this regard.
- The Convention gave way to the perception of considering differently abled persons as "subjects with rights" and not "objects of charity".
- Further, the 2030 Agenda for Sustainable Development mentioned that persons with disabilities must be both "beneficiaries and agents of change".
- **India** - India is a signatory to the UNCRPD and ratified it in 2007.
- In 2016, the Rights of Persons with Disabilities Act was moved forward, replacing the Persons with Disabilities Act, 1995.
- The Act recognises 21 kinds of disabilities compared to the previous seven.
- It includes a wide range of categories such as dwarfism, speech and language disability, and three blood disorders.
- It also increased the quota for disability reservation in higher educational institutions from 3% to 5%.
- And reservations in government jobs from 3% to 4%.

What is the state of the differently abled?

- Despite legislations, the differently abled continue to face difficulties with an abysmal implementation record.
- E.g. Around 85% of seats for persons with disabilities lie vacant in top universities.
- Attitudinal, institutional, and infrastructural barriers remain as roadblocks for a disability inclusive society.
- Evidently, World Bank has stated that 15% of the world's population experience some form of disability.
- And that they "on average, as a group, are more likely to experience adverse socioeconomic outcomes than persons without disabilities".
- In India, according to the 2011 Census, 2.21% of the population has one or multiple types of disabilities.
- This makes India home to one of the largest disabled populations in the world.
- However, disability activists see this as a low count and say that in Indian culture there was a tendency to hide disability.

What could possibly be done?

- **Inclusive workplace** - Solutions to enable people with disabilities to seamlessly interact with their environment and colleagues in workplace can increase their participation.
- Some of them include:
    i. having braille labels and audio support in lifts for visually and hearing impaired people
    ii. providing disabled-friendly restrooms
    iii. conducting sensitisation training for leaders and managers
    iv. hiring a sign language interpreter
    v. designing the entrance, attendance and access machines, dimensions of passageway and tables, etc in a disabled friendly manner
    vi. facilitating assistive hardware solutions like screen readers, magnifiers, adaptive keyboards and mouse, etc in technology driven workplaces
    vii. ensuring accessibility guidelines and standards in web-based technologies. E.g. Web Content Accessibility Guideline 2.0 by the World Wide Web Consortium.
- **Public amenities** - Government should ensure that facilities at bus stops, railway stations and airports are disabled friendly.
- Steps to make them conform to the accessibility standards relating to parking spaces, toilets, ticketing counters and machines should be taken.
- Also, there should be accessible roads to address mobility needs for persons with disabilities, as prescribed in the disability rights act.
- It is also highly essential that the currency is made disabled friendly for easy identification, in terms of size and other features.
- While there is a long way to go in implementing the laws, it must be kept in mind that a one-size-fits-all approach is less relevant for disabled persons.
- The differences in levels and types of disabilities should be acknowledged while offering protections and taking measures.

3.3 Social Support for TB Patients

Why in news?

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

What is TB?

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

How can it be eliminated?

- Elimination of Tuberculosis is defined as restricting new infections to less than one case per 100,000 people.
- This is certainly possible only if patients are diagnosed and cured without any break in treatment.
- Interruptions can exponentially raise the patient's risk of developing multidrug-resistant tuberculosis (MDR-TB), which is harder to treat.

- The Revised National TB Control Programme (RNTCP) thus aims at offering regular and uninterrupted supply of high quality anti-tuberculosis drugs.
- The drug regimen, called Directly Observed Treatment Short-Course (DOTS), is provided for free of cost under the Programme.

How effective can the recent measure be?

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

What should be done?

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

4. HEALTH

4.1 Concerns with public health

What is the issue?

- Union government has increasingly ceded space to the private sector in matters related to health.
- This in turn had sprouted controversies regarding billing methods in private hospitals.

What is the share of private sector in public health system?

- India found itself incapable of providing quality healthcare and the growth of the private sector largely unregulated.
- The private sector moved in swiftly, becoming the health set-up of choice for all except the poorest.
- From 8 per cent in 1947, the private sector now accounts for 93 per cent of all hospitals.
- It also accounts for 64 per cent of all beds, 80 per cent to 85 per cent of all doctors, 80 per cent of out-patients, and 57 per cent of in-patients.
- Of the 1.37 million functional hospital beds in India, 8,33,000 are in the private sector.

What are the recent controversy over billing methods?

- Recent controversy erupted after a seven-year-old girl, lost her life due to dengue-related complications in Fortis Hospital Gurugram.
- The girl's family was billed for 611 syringes, 1,546 pairs of gloves (used over a period of 15 days).
- Two different brands of the same drug meropenem, one costing aboutRs 500 and the other Rs 3,100.
- This underscores the need for regulating billing in private hospitals.

What are the concerns with government policies?

- The Clinical Establishments (Registration and Regulation) Act, 2010, intended by the Centre as a legislation for the regulation of hospitals by state governments health is a state subject has had a low uptake.
- Standard Treatment Guidelines that were drawn up for specific conditions and diseases, to obviate overprescription of drugs or additional costs of diagnostics, remain documents that nobody takes seriously.
- Few doctors have perhaps even read them, given that there is neither monitoring nor an enforcement mechanism that can pick violators.

- The West Bengal Clinical Establishments (Registration, Regulation and Transparency) Act, passed earlier this year,
- The Karnataka Private Medical Establishments (Amendment) Bill, 2017 that was recently tabled in the Karnataka Assembly have been criticised as draconian.
- The two acts have penal provisions against doctors who overcharge.
- Insurance companies have an interest in vetting private hospital bills and that could work as a de facto check on false billing.
- But health insurance has penetrated only 3-4 per cent of the country's population.

What measures needs to be taken?

- Duty of the State is to raise the level of nutrition and the standard of living and to improve public health, and need to consider it has its primary duty.
- The National Health Policy 2017 cleared earlier this year by the Union cabinet lays out a roadmap for public-private partnerships in healthcare.
- Recognising that primary care will forever be in the domain of the government, the policy talks of "strategic purchasing" of secondary and tertiary care from the private sector.
- For that to happen, it is important that either the private sector raises its trust quotient or the government devises an effective regulatory mechanism to drill transparency into the private healthcare system.

4.2 The Dilemma on HPV Vaccine

Why in news?

- A new vaccine against HPV Virus has been proposed for introduction into the Universal Immunisation program (UIP).
- But there is considerable opposition for such a move.

What is the HPV?

- 'Human Papilloma Virus (HPV)' causes penile cancer in men and cervical, vaginal, anal & vulvar cancer in women.
- It can also cause throat or rectum cancer in both men and women.
- The virus is transmitted through intimate contact like - sexual intercourse, oral or anal sex.
- It poses a higher risk for HIV-infected persons, smokers, and people dependent on hormonal contraceptives.

What is the current status of the Vaccination drive?

- **The Vaccine -** In India, two vaccines namely "Gardasil" & "Cervarix" are available.
- These vaccines protects against almost 90% of genital warts in men and women.
- The HPV vaccine is given thrice within six months to girls aged 9-13 years, before they become sexually active.
- Post-vaccination, a girl should ideally undergo pap smear tests every three years to check for pre-cancerous or cancerous cells.
- **Government Policy -** Punjab and Delhi have already begun vaccination for girls.
- National Technical Advisory Group on Immunisation (NTAGI) has proposed the inclusion of these vaccines in UIP for nationwide implementation.
- However, the medical community in India is divided over the vaccine's utility.

How prevalent is cervical cancer?

- While globally, cervical cancer is the fourth most frequent cancer in women - among Indian women, it is the second most frequent.
- The number of deaths from cervical cancer annually is 74,000 and India accounts for a third of these deaths.
- Nearly 366 million Indian women aged 15 years and above are at risk from cervical cancer.
- While there has indeed been a fall in the incidences lately, it is still high with 1.32 lakh new cases being diagnosed every year.
- Particularly women from rural areas where sanitation and hygiene standards are low are at a greater risk.

What are the views opposing HPV vaccination?

- The cost of the vaccine (around 12k per person) and the budget to cover a huge population are the major challenge in India.
- With 6.2 crores Indian girls aged 9-13 years, the cost to the government will be over Rs 56,000 crores.

- Also there is no data to suggest that they comprehensively prevent invasive cervical cancer as evaluation requires long testing periods.
- HPV vaccine has also been found to have side-effects such as regional pain syndrome and neurological problems in some cases.
- Contrarily, India is already witnessing a declining trend in cervical cancer due to better nutrition, hygiene & reproductive patterns.
- Hence, a case for improving these aspects further, rather than expose the entire population to the vaccination holds ground.

What are the views supporting HPV vaccination?

- 'WHO Global Advisory Committee for Vaccine Safety (GACVS)' had concluded that there the HPV vaccines are safe.
- 71 countries had introduced HPV vaccine in their immunisation programme for girls and 11 countries included boys too.
- Australia was the first country to introduce HPV vaccination in its school program and now has the lowest level of cervical cancer.
- **Indian Case –** In India there is already enough manpower and cold storage for vaccines.
- Hence, some argue that the prevention cost will be lower than treatment cost.
- As, awareness on prevention of HPV infections and safe sex is low in India, there is a view that it can't be solely relied to fight HPV.

4.3 Deteriorating Private Health Care

Why in news?

The Delhi government recently cancelled the licence of Max Super Speciality Hospital in Delhi citing a series of violations.

What is the recent tragedy?

- Almost 10 days after a baby was declared dead by the hospital, it was found to be alive, but later died.
- The final report of an enquiry by the Directorate General of Health Services (DGHS) found the hospital at fault.
- The hospital failed to keep proper temperature and vital sign monitor record and missed the signs of life.
- The staff nurses had handed over the bodies of the babies without written directions from a paediatrician.
- The DGHS through its findings concluded that it was a case of clear medical negligence.
- The hospital license was thus cancelled by the government.

What is the larger implication?

- It brings to light the callous negligence of private hospital authorities.
- The hospital had earlier failed to comply with the notices stipulating admission of low-income patients.
- This sort of transgression is one of the worst-kept secrets about private hospitals in India.
- Notably they have come up on free or heavily subsidised land.
- This was with a precondition that a certain percentage of beds are reserved for economically weaker sections.
- In the initial days, this was seen as an option to balance the governments' disinclination to invest in adequate health care services.
- However, the steady expansion of the high-cost private hospital network has failed in achieving this outcome.
- As, these have proliferated at the cost of public hospitals and have excluded the lower middle class and poor people.
- Consequently, these vulnerable groups remain hostage to a public health care system that has deteriorated sharply over the past two decades.
- India needs to device a framework to offer a quality health care service to its people in fair and equitable manner.

What are the notable global models in health care?

- **Swedish Model (Competitive Bidding)** - Private and public health facilities compete for government funding and the right to provide healthcare to citizens.
- The winning bid, receives funding and incentives for providing the quickest and cheapest treatment.
- Also, the costs are strictly regulated and beyond a certain amount of expenditure, the visits are free.

- It is thus ensured that no citizen pays more than $ 300 per year including prescription drugs.
- **Thailand Model (Capitation Fee)** - Under the National Health Security Act, the Universal Coverage Scheme (UCS) covers roughly 75% of the Thai population.
- UCS, which is tax-funded, pays annual capitation fees to hospitals based on how many beneficiaries visit them.
- Public and private hospitals are treated on a par, and the beneficiary chooses where she goes.
- **Canada Model (Fixed Charges, Govt Reimbursement)** - Medicare, which covers all Canadians, is publicly financed and privately run.
- The Canadian Health Act of 1984 allows medical practitioners to only charge fees fixed by governments.
- General Practitioners are a very important link in the healthcare chain and they are paid from tax revenue either by the federal or the provincial government.
- Governments decide fees of primary care physicians and salaries of health professionals.
- The federal government regulates drugs and diagnostics; provincial governments regulate hospitals, private healthcare professionals and private insurance.
- **Germany (Insurance-Based)** - The government-funded Social Health Insurance (SHI) and private insurance cover almost 99% of the population.
- The government delegates regulation and governance to the SFs and medical providers' associations.
- The Social Health Insurance is operated by more than 200 competing Sickness Funds (SFs).
- These are self-governing, nonprofit, non-governmental organisations.
- And are funded by compulsory wage-based contributions, matched by employers.
- The patient chooses her SF and provider, who cannot refuse her.

4.4 Dual Nutrition Burden in India

What is the issue?

India is witnessing the emerging menace of over-nutrition along with the existing concern of high under-nutrition.

How is under-nutrition in India?

- Global Nutrition Report ranks India low in stunting among children aged less than five and in under-5 wasting.
- **Micronutrient deficiency** - The burden of vitamin and mineral deficiencies, called 'hidden hunger', is also considerable.
- This is because a vast majority of Indians eat cereal-based food, mainly wheat and rice.
- There is an insufficient intake of food such as milk, pulses, and fruits and vegetables, which are rich sources of micronutrients.
- **Effects** - Women and children are the most vulnerable to micronutrient deficiencies and consequently have adverse health affects.
- Deficiency of iron in women causes reduced physical work capacity, fatigue, etc.
- Notably it could also lead to depression and post-partum maternal haemorrhage.
- In the case of children, the impact is felt with impairment in growth and cognitive development.
- **Response** - In the last few decades, India has made efforts at improving the food and nutrition security of its population.
- This was done with strides in technology, irrigation practices, extension services, and progressive agricultural policies.
- Also, in the 1990s, deficiencies of micronutrients such as zinc, folic acid, magnesium, selenium and vitamin D received more attention.
- However, despite an overall decrease in cases, the level of under-nutrition still remains high in comparison with world nations.

What is the emerging concern?

- The recent findings of the National Family Health Survey-4 (2015-16) bring out the emerging scenario of over-nutrition in India.
- With Body Mass Index (BMI) as the measure, the survey identifies-
  i. around 15% of urban women to be underweight and around 30% of to be overweight or obese
  ii. around 15% of urban men in the underweight category and a 26% in the overweight and obese category

What has led to this?

- Lifestyle and dietary patterns have undergone dramatic changes, especially among urban sections, in the recent decades.
- This has contributed to reduction in physical activity and an increasing prevalence of non-communicable diseases.
- Over-nutrition is traced to be the cause for these diseases due to the imbalance between intake and activity.
- Resultantly, over-nutrition is emerging as a concern among the urban affluent segments.

4.5 Addressing Diphtheria

What is the issue?

- Diphtheria is rapidly spreading in south Indian states affecting many children due to lowering vaccination coverage.
- India needs a better vaccination and awareness program to address lowering vaccination coverage.

What is Diphtheria?

- Diphtheria is a highly infectious disease, which usually shows up as a sore throat and difficulty in breathing.
- It spreads through contact or cough and sneeze droplets, and is caused by the bacterium Corynebacterium diphtheriae.
- In severe cases, the toxin secreted by this bacterium kills cells in the throat.
- If the patient isn't treated the toxin can spread through the bloodstream hurting the heart and kidneys.

What is the status of the disease in India?

- India has had a diphtheria vaccination programme since the 1980s.
- Yet India continues to be a world leader in diphtheria today, with 3,380 cases and 177 deaths reported in 2016.
- This year has seen worrying outbreaks in Karnataka, Kerala and Telangana, among other States.
- Diphtheria is increasingly infecting adolescents and adults in India, though it was historically an illness of children under five.

What are the reasons behind the growing disease in India?

- Under the Universal Immunization Programme (UIP), all children below one year of age are supposed to get three doses of the Diphtheria-Tetanus-Pertussis (DTP) vaccine.
- It is followed by two booster doses between 1-2 years and 5-6 years.
- But coverage of the three primary doses is inadequate at 80% across the country and there is no vaccination for grown-ups.
- Data on coverage with the two booster doses is patchy, with one study showing poor rates of around 60% and 36% for each dose, respectively, in 2006.

What are the reasons behind lower vaccinationcoverage?

- Usually lower vaccination coverage is triggered by an ill-advised change in vaccination schedules and socio-economic instability among the population.
- A review from Chennai's National Institute of Epidemiology found low rates of vaccination among Muslim communities, one of the reasons driving outbreaks in States like Andhra Pradesh.
- Kerala despite its high vaccination rates, has susceptible pockets for the same reason.
- This because there are anti-vaccination sentiments seeded by few Islamic clerics in this regions.

4.6 Research findings on Encephalitis

Why in news?

A research paper on epidemic Encephalitis has been realised.

What is the account of this disease in India?

- In India Japanese encephalitis (JE) is most prevalent, it caused by JE virus spread by the bite of infected mosquitoes.
- It's more common in rural and agricultural areas which causes serious brain swelling with a sudden headache, high fever and disorientation.

-
- Indian public health diagnostic machinery has built around this illness and a vaccine was also introduced.
- This disease is being prevalent in U.P.'s Gorakhpur district for past three decades.

Why the disease is epidemic in few parts of India?

- The recent research paper finds an unexpected cause of encephalitis which is recurring for several years in in Malkangiri district of Odisha.
- Researchers finds out it was likely due to the consumption of a wild bean, called Bada Chakunda, which grows freely in the region.
- Several natural toxins had caused fatal dysfunction of the liver, heart and brain in underfed children.
- Even in Uttar Pradesh's Saharanpur district, the encephalitis outbreak was traced to this bean.
- There are also epidemics in Bihar's Muzaffarpurdistrict which were linked to lychee consumption, again among emaciated children.
- In all these cases, the suspicion of JE, though the epidemiology and symptoms didn't match, which delayed the discovery of the cause.

What are the concerns the report had pointed out?

- As JE vaccination rates have grown, incidence has shrunk, and a host of other causes of encephalitis, like dengue, scrub typhus, and other disease have emerged to the forefront.
- Yet investigating agencies such as the National Centre for Disease Control and the National Institute of Virology have persisted in focussing on JE.
- There is a problem of archaic format in which encephalitis is reported to the government.
- Under this format, if an encephalitis case cannot be confirmed as JE, doctors tag it as Acute Encephalitis Syndrome (AES).
- But AES is no diagnosis, just a temporary label for different unnamed diseases.
- Thus doctors by them don't have a clear understanding about the disease due to narrow minded observation.

5. GOVERNANCE

5.1 Assessing NCALT

What is the issue?

The National Company Law Appellate Tribunal seems to be lacking the specifics to ensure the purposeful functioning of the competition adjudications in India.

What are the legal mechanisms in place?

- The Indian competition adjudicatory structure consists of-
    i. Competition Commission of India (CCI)
    ii. National Company Law Appellate Tribunal (NCLAT)
- **CCI** - The Competition Commission of India is a statutory body responsible for enforcing The Competition Act, 2002.
- It is tasked with preventing activities that have an adverse effect on competition among companies in India.
- The commission is entrusted with regulatory powers for effective regulation.
- **NCALT** - NCLAT serves as the appellate authority for hearing appeals against the decisions, directions or orders passed by -
    i. National Company Law Tribunal(s) (NCLT)
    ii. Insolvency and Bankruptcy Board of India
    iii. Competition Commission of India (CCI)

Are tribunals effective?

- Tribunals were envisioned as ad-hoc mechanisms to address the problem of judicial delays.
- They are a tool to harness cost-effectiveness, accessibility, expedited functioning and expert knowledge.
- Nevertheless, reality with the state of competition appeals in India is not appreciable, with some inherent shortfalls in the system.

What are the concerns?

- **Delays** - The appellate authority is required to dispose of appeals expeditiously; possibly within six months from the date of receipt of appeal.

- However, data suggests that such a deadline is not complied with.
- Resultantly, the average disposal rate per year of competition appeals falls between only 40-50%.
- **Procedure** - In addition to the delay caused at the appellate stage, there lies further scope of appeal at the Supreme Court level.
- The absence of detailed, stage-wise timelines governing the appellate process adds to the problem.
- Resultantly, the numerous layers of judicial procedures largely undermine the very purpose of these adjudicatory mechanisms in place for ensuring fair competition.
- **Capacity** - The maximum permissible strength of the NCLAT is 11 members.
- However, it currently comprises only three, leading to limited capacity at the tribunal.
- **Composition** - NCLAT also does not comprise of any technical members on board.
- There is lack of specific expertise in competition law and policy, for a professional handling of the company cases.

What should be done?

- There is an urgent need to appoint more members in NCALT to ensure that the pending-appeals do not pile up as huge burden.
- In its 272nd Report, the Law Commission of India has recommended that specialised tribunals should comprise of technical persons.
- This may include persons with special knowledge and professional experience or expertise of not less than 15 years in the particular field.
- E.g. in the UK, the Competition Appellate Tribunal (CAT) comprises a combination of industry experts, economists and legal practitioners, etc.
- Case-management techniques such as setting stage-wise timelines, arranging case-management conferences, etc should be adopted.

5.2 Addressing Conflict of Interest in Bureaucrats

What is the issue?

The mechanism for addressing conflict of interest needs a revamp to bring down corruption and increase governance efficiency.

What is the current policy?

- India has an official policy regulated by the Ministry of Personnel.
- Accordingly senior bureaucrats have to seek permission for commercial employment after their retirement.
- This is to avoid conflict of interest and is naturally inked with the aim of preventing corruption.
- This is being followed from the British era as a measure of ensuring bureaucratic efficiency, especially in the collection of taxes.

What are the concerns?

- Some bureaucrats mix up the virtues of public service with that of private profit in retirement.
- And naturally end up in exposing themselves to a potential conflict of interest.
- Grants of permission within cooling-off period depend primarily on government discretion, with no codified mechanism.
- If senior bureaucrat served for decades in the government and wanted to move out towards a corporate role, he/she faces much disapproval without any reason.

What needs to be done?

- A recommendation of the Parliamentary Standing Committee on the DoPT called for early retirement if interested in post-retirement private service.
- A private member's bill, The Prevention and Management of Conflict of Interest Bill was introduced in 2012.
- These recommendations and legislations need to be implemented in true spirit.
- The legislation ought to cover all arms of governance, including the judiciary, the legislature and the executive.
- Mandatory cooling period needs to be increased to five years, so that no undue influence can be exerted by the retired bureaucrat.
- An open, public data platform enlisting all post-retirement appointments of civil servants would increase transparency.

- India needs a legislation to make non-disclosure of a conflict of interest punishable.
- The reasons for declining bureaucrat's requests for joining such firms need to be laid out clearly, to limit political concerns.

6. INDIA AND ITS NEIGHBOURHOOD

6.1 Nepali Election Results

Why in news?

The Left alliance in Nepal is heading for a decisive victory in the first election post the 2015 constitution.

What is the result?

- Nepal's new constitution provides for a mix of "First Past the Post (FPTP)" - 165 seats and Proportional Representation (PR) -110 seats in its parliament.
- While the final picture of its new Parliament isn't out, the Leftist Alliance is on course to win more than 70% of the 165 FPTP seats.
- The leftists are also leading in most PR seats.
- This will make it the first decisive win since democracy began in 1990.
- Even at the provincial level that were held along with the national elections, the leftist coalition is in the lead.

What are the implications?

- By forming an ideologically coherent alliance and expanding beyond the traditional strongholds in the hill towns, UML has succeeded in reversing its electoral debacles since 2008.
- This provides an opportunity for a stable government after years of political instability and would help focus on governance.
- But there is considerable scepticism as such opportunities have been wasted in the past due to rumbling disagreements within coalition partners.
- Many constitutional issues and particularly the sensitive Madeshi question isn't settled as yet.

What are the lessons for India?

- The elections were largely concluded to be free and fair with more than 300 international observers and Election Commission's awareness drive.
- The Nepali elections would also help in studying the patterns for simultaneous elections for provinces and National Assembly, which has been proposed in India.
- Also, the partial 'Proportional Representation' concept that has been instituted in Nepal can be studied.

6.2 Gaining from UN Peacekeeping Operations - India and China

What is the issue?

- Despite troop contributions to UN peacekeeping missions, the returns in UN power play for India have been low.
- Also, China's grip on UN affairs is increasing to the detriment of India.

What is UN Peacekeeping?

- The United Nations Security Council has the power and responsibility to take collective action to maintain international peace and security.
- It thus authorizes peacekeeping operations to help countries that are conflict ridden and to create conditions for lasting peace.

What is China's role?

- In the emerging geopolitical scenario, China is increasingly taking a centre stage in the world affairs.
- Amidst this, in UN peacekeeping missions, China has become the largest troop contributor among the permanent members of the UNSC.
- More importantly, China is now the third-largest contributor to the UN's regular budget.
- And the second-largest contributor to the peacekeeping budget.

- China's participation in UN operations offers a low-cost means of demonstrating their commitment to global stability.
- Also an assertion of its military and economic strength and its quest for great power status.
- What is more concerning for India is China's greater involvement in selective peace operations with a self-serving motive.
- E.g. China was against sending UN peacekeepers to Guatemala and Macedonia because they had established diplomatic ties with Taiwan.
- This is evident of increasing front-lining of China in international affairs via the UN.

Why is it a concern for India?

- The UN, especially the UNSC, notwithstanding its charter of considering all countries as equals, functions more in a partisan way.
- In practice, a nation's voice is in proportion to what it contributes towards the UN.
- Notably, troop contributions to peacekeeping alone do not get their due in UN power politics.
- It is the contribution of funds that matters more for having a powerful say in the decisions and getting pivotal posts in UN missions.
- Sadly, India's contribution is below 1%, when compared to China's around 8% and U.S.'s 20% plus.

What are India's demands?

- The current system excludes the troop and police-contributing countries (T/PCCs) from the process of framing the mandates.
- Chinese involvement in peacekeeping and its higher funding contributions gives it a role in formulating peacekeeping mandates.
- On the other hand, India is losing out despite having provided almost 200,000 troops in nearly 50 of the 71 UN peacekeeping missions over the past six decades, because of less fund contribution.
- India thus demands an enhanced role for troops contributing countries in the decision-making process of UN peacekeeping missions.
- There is also a need to ensure a more effective triangular cooperation between the T/PCCs, Secretariat and Security Council.
- The cooperation should be enhanced in important policy and doctrinal issues being formulated in the field of peacekeeping.
- The need is felt more with the increasing complexity of peacekeeping operations as well as with non-state actors becoming major players in many of these conflicts.

6.3 India China Border Talks

What in news?

The 20th round of the Special Representative (SR) talks between India and China on the border question was recently held.

What is the significance?

- India was represented by National Security Advisor Ajit Doval and China was represented by State Councillor Yang Jiechi (member of the Polite Bureau).
- Significantly, Polite Bureau is the chief decision making body in China and this is first time that an official of such high-rank spearheaded the talks.
- This meet is also important as it comes after a long pause of 20 months after the previous round (usual gap is 1 year) and after the 70 day Doklam standoff.
- Above all, they were guided by the Modi-Xi agreements of 2017, including the 'Astana consensuses' that "differences must not become disputes".

What are the focus areas?

- Agreement on "Political Parameters and Guiding Principles for the Settlement of the India-China Boundary Question" formulated in 2005 is the key focus.
- The three major parameters of discussion were
    o Defining the guidelines for the settlement of border disputes
    o Formulating a framework agreement on its implementation
    o Completing border demarcation

- Notably, the SRs were given an extended mandate this year, and thus went well beyond the remit of merely discussing the resolution of boundary issues.
- But despite all this bonhomie, there are multiple challenges that look difficult to resolve.

What are the challenges?

- Despite the signing of the 2013 Border Defence Cooperation Agreement, there has been a steady decline in relations in all spheres.
- The border has seen more transgressions, people-to-people ties have suffered amid mutual suspicion.
- China's forays in South Asia as well as India's forays into South-East Asian sea lanes have increasingly become areas of contestation.
- India sees China's Belt and Road Initiative (BRI) and its other forays into the Indian neighbourhood as an endeavour for total geo-political domination.
- Furthering its concern is the intrusive "China-Pakistan Economic Corridor" that runs through the disputed PoK, and Chinese hurdles for India in the NSG and UN Security Council Resolutions on Terrorism.
- In turn, Beijing sees the U.S.-India defence agreements, the Quadrilateral engagement with Japan, Australia and the U.S., and Indian opposition to the BRI as India's anti-China attitude.

6.4 Ceasefire Violations in LoC

Why in news?

2017 has marked highest number of Cease fire violations between India and Pak in LoC

What is the status of cease fire violations in Line of control?

- The ceasefire between India and Pakistan has been in place since 2003, but there are increasing breaches in the agreements from both the sides.
- As per official data there have been 820 ceasefire violations so far in 2017.
- This is a fourfold increase when compared with previous year violations.

A CEASEFIRE ONLY IN NAME

	2015	2016	2017*
Ceasefire violations	152	228	820
Infiltration attempts	310	270	130
Infiltrating militants killed	30	37	59
Infiltration attempts foiled	18	27	33
Army soldiers dead in J&K	33	63	61

(Data from official sources; *Until December 26)

- In 2017 Indian Army has lost 31 soldiers on the LoC, including 14 who died in ceasefire violations.
- Another 17 died in counter-infiltration operations and other incidents on the LoC.
- Sources estimate that the Pakistan army would have lost at least 12% to 15% more soldiers than India on the LoC this year.

Why ceasefire violations has increased in 2017?

- The cease fire violation and cross border infiltrations had started after terror strike on the Uri Army camp, in which 19 Indian soldiers were killed.
- This was followed by the Indian Army Special Forces surgical strikes on terror launch pads across the LoC.
- After which the Pakistan army came under a lot of pressure and started firing all across the LoC.

- In retaliationthe intensity and gauge kept increasing, the attacks started with direct firing weapons had transformed into indirect firing weapons later on.
- At the same time, actual violence on the LoC is driven by the Pakistani government's alleged desire to push more militants into the Kashmir Valley in order to capitalise on the unrest.

7. BILATERAL RELATIONS

7.1 RIC Trilateral Foreign Minister's Meet – The stakes for India

Why in news?

The 15th foreign ministerial meeting of the trilateral grouping, Russia, India and China (RIC) is to be held shortly.

What is the significance of the meet for Indo-China relations?

- It comes in the backdrop of months of tense relations between India & China on multiple issues.
- This would also be the first high profile Chinese official visit after Mr. Xi was assured a 2nd term with greater popularity.
- Notably, China blocking India's entry into NSG and tensions in Arunachal & Doklam plateau were the recent tension points.
- Beijing also continues to ignore India's objections to the China-Pakistan-Economic Corridor (CPEC).
- This passes through disputed PoK and thereby violates India's sovereignty.

How is the current India - Russia relationship?

- Russia and India have held the same positions on several of the key problems in international relations for many years now.
- Both intend to create an inclusive world order by strengthening global institutions like the United Nations.
- But economic sanctions by EU & US against Russia (due to the Crimean annexation) has already made Russia heavily dependent on Chinese trade.
- Also, Russia's Afghan policy and its recent Pakistan outreach are disaligned to that of India's perspectives.
- Hence, India and Russia need to strengthen their wanning relationship that has been built on mutual trust and confidence over decades.

How does the future look?

- China is expected to follow an assertive path in the geo-political & economic sphere in the near future.
- Due to its financial might and economic heft, there is a possibility that China would unilaterally dominate the affairs of the RIC.
- This calls for strong strategic thinking on India's & Russia's part to hinder China from unilaterally dominating affairs.
- Chinese expansion into Central Asia and Eastern Europe appears to be a concern for Russia as these regions have traditionally its forte.
- While building its relationship with China, Russia is wary of increasing Chinese dominance in the geopolitical order – India should capitalise on this.

7.2 India's Entry into Wassenaar Arrangement

Why in news?

India has been admitted as the 42nd member of Wassenaar Arrangement.

What is Wassenaar Arrangement?

- The Wassenaar Arrangement is an elite club of countries which subscribe to arms export controls.
- It is clubbed with mechanisms such as the Nuclear Suppliers Group (NSG), the Missile Technology Control Regime (MTCR) and the Australia Group.
- The body came into being in 1996 to succeed the Cold War-era Coordinating Committee for Multilateral Export Controls.
- The WA has 42 members, with the exception of China, all the other permanent members of the U.N. Security Council are signatories of the WA.

How does the Wassenaar Arrangement work?

- The goal of the Arrangement is to promote transparency and greater responsibility in transfers of conventional arms and dual-use goods and technologies.
- The Arrangement works according to WA Control Lists and the controls are subject to ratification by the participants.
- Participants are required toensure that transfers of these items do not contribute to the development or enhancement of military capabilities which undermine the goal.

What are the significances of India's entry?

- Earlier India's efforts at the NSG were stopped by China, which is not a member of the Wassenaar Arrangement.
- Wassenaar Arrangement membership is seen as a credit on India's need for diplomacy in sensitive nuclear issues, compared to the failed attempt to gain entry to the NSG in 2016.
- India's admittance into the Wassenaar Arrangement will strengthen India's credentials as a responsible nuclear power.
- India's WA membership is expected to build up a strong case for India's entry into the 48-member Nuclear Suppliers Group (NSG).
- Wassenaar Arrangement will also embed India deeper in the global non-proliferation architecture and enable access to critical technologies in the defence and space sectors.

Quick facts

NSG

The Nuclear Suppliers Group (NSG) is a group of nuclear supplier countries that seeks to contribute to the non-proliferation of nuclear weapons.

- It has 48 members and India is not a member of this group.
- Support of international efforts towards non-proliferation of weapons of mass destruction is the main consideration for the participation in the group.
- The NSG Guidelines authorises a member country to transfer only when satisfied that the transfer would not contribute to the proliferation of nuclear weapons.

MTCR

- Missile Technology Control Regime (MTCR) was established in April 1987 by Japan.
- It aims to limit the spread of ballistic missiles and other unmanned delivery systems that could be used for chemical, biological, and nuclear attacks.
- It has 35 members,which include most of the world's key missile manufacturers, India is a member in this group.
- It seeks to restrict the exports of missiles and related technologies of any type of weapon of mass destruction.

Australia Group

- The Australia Group (AG) is an informal forum of countries which, through the harmonisation of export controls.
- It seeks to ensure that exports do not contribute to the development of chemical or biological weapons.
- It has 42 members and India is not a member of this group.

7.3 'India Japan Australia' Trilateral & ASEAN

Why in news?

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

What were discussed in the meet?

- Three sides resolved for greater collaboration on maritime security, counter terrorism and disaster response capabilities.

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

How is India's ASEAN outreach shaping up?

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

7.4 Indo-Russian Defence Ties

Why in news?

Amid increasing Indo-US cooperation across domains, there is a rising concerns that India's historic defence ties with the Russia may take a hit.

What is the recent controvercy?

- A Russian "Akula-Class nuclear submarine" was leased to India in 2012 for period of 10 years.
- The lease restricted deploying the vessel for offensive operations and had multiple clauses for ensuring its operational and technical secrecy.
- Recently, a Russian news website accused the Indian Navy of having opened the vessal to a US technical team for inspection.
- While the report turned out to be false, the issue raised eyebrows in strategic circles and brought the critical Indo-Russian navel partnership into focus.

What is the historical evolution of the Indo-Russia defence ties?

- USSR was India's strategic partner during the Cold War and also its primacy military equipment supplier.
- Moscow started supplying naval equipment to India from 1964 and by 1987, these supplies made 70% of the Indian Navy's inventory.
- Subsequently, Moscow loaned the first nuclear submarine to India in 1988, which was commissioned in the Indian navy as INS Chakra.
- An understanding was also reached for accessing Soviet assistance to India's navy prsonals and assist the indigenous nuclear submarine programme.
- The soviet mandate spelt out in clear terms, that no technical parameters were leaked during the period of the lease.
- In this regard, India established strict protocols for the Vishakapatnam dockyard and even closely monitored various security parameters.

What is the significance of Russia?

- From being an exclusive preserve of the Russian defence industry, the Indian Navy is now increasingly looking forward to American hardware.
- India currently looks to the US for top-of-the-line defence equipment like attack helicopters, artillery guns, and advanced transport aircrafts
- Notably, Russian Tu-142 maritime reconnaissance aircrafts have been replaced by USA's P-8 I Poseidon aircrafts of the same type.
- India also intends to establish ties for commencing joint arns production with the US and jointly organises the annual Indo-US-Japan Malabar exercises.

- But despite this growing Indo-US bonhomie, India continues to buy/lease Russia equipments on a considerable scale.
- Most importantly, Russia's technological assistance to India's indigenous nuclear submarine programme 'Arihant class' has been immense.

7.5 US Security Doctrine and its Impact on India

Why in news?

- India has welcomed Mr. Trump's recently announced 'National Security Strategy' (NSS), which has openly criticised many nations.
- But India needs to exercise caution to avoid becoming second fiddle to the US at international forums.

What are the implications for India?

- NSS perceives India positively, affirms India's stature and acknowledges India's emergence as a leading global power.
- It supports Indian leadership in the region's development and outlines India's primacy for ensuring security in the Indian Ocean.
- It also sees China's aggression as an assault on the "sovereignty" of the neighbouring nations in the region.
- Pakistan's continued support to terror groups has also been noted.
- All of these are aligned with India's concerns, and indicate the growing convergence between US and India on strategic issues.

What are the implications for other nations?

- NSS had singled out five countries (China, Pakistan, Russia, Iran and North Korea) for criticism – which on expected lines have reacted negatively.
- Particularly, China and Russia have been accused of using their military might to deny the US, access to "critical commercial zones".
- In response, China had said that the US is struck in its Cold War mindset and Russia accused the US of practicing neo-imperialism.
- Iran and North Korea have been critiqued for their nuclear programs, and Pakistan for its faultering to honour its security commitments.

Why caution is needed?

- US policy priorities and perceptions have swung wildly under the Trump administration, thereby making its commitments unreliable.
- Also, in many cases words haven't been backed up by actions.
- Notably, while the U.S. has talked of countering China's influence in South Asia, it has not backed this with actual financial assistance for projects.
- Also, while words on Pakistan's soft approach to terrorism has been sharp, the U.S. continues to support the Pakistani government through huge funds.

What is the way ahead?

- Lately, there has been an American withdrawal from pacts ranging from the Trans-Pacific Partnership to the Paris agreement on climate change.
- Also, Mr. Trump is seen to be publicly at odds with many of hi skey advisors on many issues ranging from - Palestine, North Korea, Iran or Afghanistan.
- A watch-and-wait stance is still India's best option to preserve the autonomous and pluralistic nature of its engagement in world affairs.

8. INTERNATIONAL ISSUES

8.1 Political tensions in Ireland

Why in news?

Ireland's Deputy Prime Minister Ms. Fitzgerald, has resigned and averted the risk of an early election.

What are the reasons behind the resignation?

- Ms. Fitzgerald becomes the second political casualty in less than a year of a longstanding scandal, after former premier and highly regarded centre-right leader.
- The specific allegation against Ms. Fitzgerald was that as the Minister for Justice in the previous administration she did not take action despite having knowledge about an attempt by an ex-chief of police to discredit a whistleblower.
- But once Sinn Fein, the hardline party of the left, moved a vote of no-confidence this month, her exit was inevitable.
- While Prime Minister Leo Varadkar initially defended his deputy, the opposition on whose support the Fine Gael minority government depends, moved a motion against her.

What are the prospects of this move?

- Ms. Fitzgerald's resignation has averted the collapse of the government for now.
- The reprieve Prime ministermove has come at a critical stage in Ireland's negotiations in the European Union over the implications of Britain's exit from the bloc.
- London's conservative government, view this as no more than political posturing by an equally weak government across the border.
- The broader reality is that Britain is Ireland's largest market, and the gateway for sizeable exports to Europe and the rest of the world.
- In the current state of Brexit negotiations, a spirit of reasonable accommodation could well define the future.
- The future of the Irish border is intertwined with the nature and shape of the U.K.'s relationship with the bloc, and clarity could take some time coming.

8.2 Jerusalem as Israel's Capital - US

Why in news?

- U.S. President Trump reversed the decades old policy, and recognised Jerusalem as the capital of Israel.

- The US administration would also begin a process of moving the U.S. embassy in Tel Aviv to Jerusalem.

What is the tussle with Jerusalem?

- Jerusalem is in ways symbolic of the Israel-Palestine conflict itself.
- The tussle centres on who gets to control the ancient city that is sacred to Jews, Muslims and Christians.
- After the end of the First Arab-Israel War in 1948, Jerusalem was partitioned into West and East, under Israeli and Palestinian control respectively.
- But in 1967, during the Six-Day Arab-Israel War, Israel snatched East Jerusalem from Jordanian forces.
- Israel's Parliament also declared the territory had been "annexed to Israel" and Jerusalem had been "reunited".
- The predominantly Palestinian population in the east lives under full Israeli control, but cannot vote in parliamentary elections.
- This marginalised the Palestinians, who wanted East Jerusalem to be their capital under the "two-state solution".
- Israel was undeterred by the refusal of the international community to endorse the annexation.
- It further added over 200,000 Jewish settlers to the once-almost entirely Arab East Jerusalem.

Source: **Origins and Evolution of the Arab-Zionist Conflict, Israel: A History, The Question of Palestine and Graphic News**
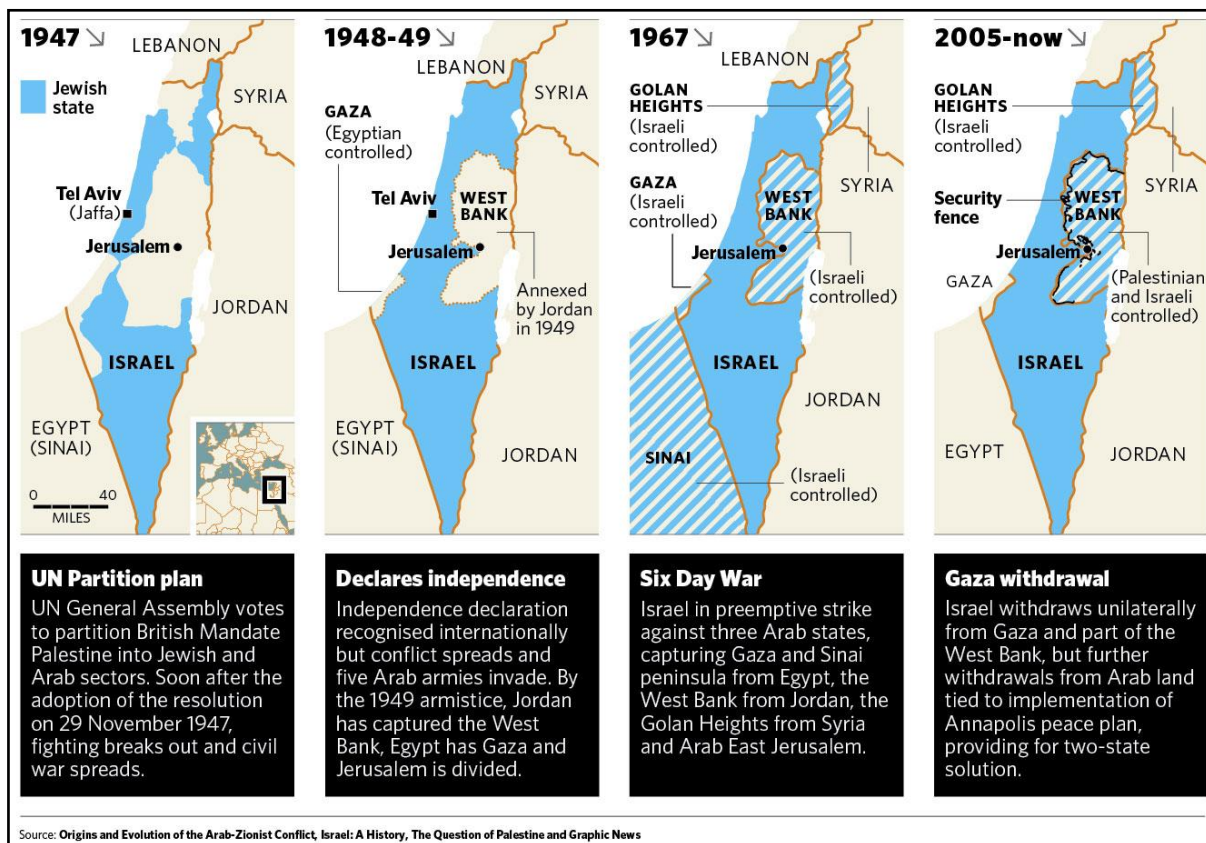
- Meanwhile, in 2016, the UN reaffirmed that Jerusalem's Palestinian territories were under "hostile occupation".
- The international community considers east Jerusalem illegally occupied by Israel.
- Notably, foreign embassies to Israel are in Tel Aviv and not Jerusalem.
- India for its part has traditionally backed a two-state solution, and assured that the Indian embassy would stay in Tel Aviv.

What is the significance of the US's move?

- **Jerusalem** - Jerusalem is almost the key to stability of the entire Middle East.
- It has many shrines that are equally significant for the Jews, the Muslims and the Christians.
- Trump's move reflects Jerusalem as the centre of Jewish faith, and the fact that the city is the seat of the Israeli government.
- **US** - Trump expressed hope for start of the peace process and reiterated his commitment to the two-state solution to the Israel-Palestine conflict.
- The effort to please the core base of pro-Israel hardliners and the overwhelming Jewish population in US cannot be denied.
- But, as with most political developments in the Middle East, a bigger regional game could also be behind.
- This possibly includes a US-Saudi-Israel alliance against Iran, the common enemy.
- **Response** - The UN Secretary General voicing dissent had said that the issue on the holy city must be resolved only through direct negotiations.
- The Islamic world is outraged and many Arab leaders warned it could trigger an upheaval in the already volatile Middle East.
- Palestine has warned of dangerous consequences and said the decision was a declaration of war in the region.
- Neighbouring Jordan and Turkey have cautioned the US and have threatened to cut ties with Israel.
- Militant groups in the region could possibly take aggressive stances.

8.3 UN Resolution on Jerusalem

What is the issue?

In what was effectively a snub to USA's recent stand on the status of Jerusalem, a resolution was passed in the UN with the support of 128 nations.

How did the situation evolve?

- While the entire territory of Jerusalem is currently under Israeli control, the UN has thus far been steadfast in stressing the disputed status of the city.
- Notably, due its historic and religious significance, Jerusalem is being claimed by both Israel and Palestine as their capital city.
- There are multiple proposals on how the status of the city can be resolved, one of which is declaring it an internationally administered territory.
- Recently, the US unilaterally recognized Jerusalem as the undisputed capital of Israel and also plans to shift its embassy there.
- As the move could potentially ruin any hope of a solution to the Israel-Palestine conflict, it received widespread international condemnation.

How did the resolution sail through?

- A resolution calling for compliance with the UN's long standing view on Jerusalem was mooted in the UN Security Council by Egypt.
- While all members expect US spported the resolution, US vetoed it and thereby obstructing its passing.
- Subsequently, Egypt swiftly piloted the same in the General Assembly, where it had to muster a two-third majority to get it passed.
- Despite the US openly threatening member countries against supporting the resolution, it sailed through with a comfortable 128 up-votes.
- Notably, all members of the EU, ASEAN and GCC supported the resolution and only six countries that included "Israel, Honduras, Guatemala, and three Pacific island nations" voted against it.
- Significantly, 35 others, including neighbours Canada and Mexico abstained from the vote, with Bhutan being the only abstainer from south Asia.
- While the resolution doesn't even mention US by name and is non-binding, it does have significant symbolic value and has made its point.

What are its implications for India?

- India too supported the resolution despite its domestic political compulsions and its growing closeness with Israel and US.
- Hence, the vote is a timely reassurance that India abides by its principled long-standing policy on Palestine.
- This is bound to resonate well with the members of 'Gulf Cooperation Coucil" with which it has crutial business ties.
- Also, Indo-Israeli ties won't take a considerable beating, considering that India has largely de-hyphenated the Palestine question from its dealings with Isreal.
- Notably, India imports almost a third of Israel's defence produce and Isreal would find it difficult to overlook India's criticality for its economy.

8.4 Outcomes of the WTO Ministerial

Why in news?

The 11th biennial ministerial conference of the 'World Trade Organisation (WTO)' recently ended.

What is the divide between developing & the developed world?

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

- On the contrary, the developing countries want the Doha issues settled first, before taking up newer things as it might distract the focus.

How did the current ministerial go?

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

What are the major issues?

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

What are the challenges ahead?

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

8.5 US threats to WTO

Why in news?

U.S is holding up the appointments to WTO's appellate body, its dispute settlement mechanism.

What is the composition of the appellate body?

- The appellate body is the court of appeal for issues of law and legal interpretation arising from decisions rendered by the dispute resolution panels.

- It is composed of seven permanent members appointed by WTO members by consensus.
- The initial appointment of an appellate body member is for a four-year term, with possible reappointment for a second term.
- The appellate body members can continue to adjudicate an appeal even after expiry of their tenure, on cases to which they were appointed during their term.

Why is its significance?

- The body has been viewed as the central element in enforcing the rights and obligations of WTO members.
- The appellate body had issued over 140 reports since 1995,which have been perceived to be fair and objective.
- It is unique as its judgments are enforced through gentle suasion and the stick of authorised trade retaliation.
- This makes it crucial for the continued survival of the rules-based multilateral trading system.

What are the recent intimidations of U.S?

- In recent months the US has blocked the selection of all new members of body.
- US blocked the reappointment for a second term of one of its own nationals to the appellate body for the reason that she refused to comply with the U.S in some disputes.
- If the U.S continues with such an approach, by the end of this month only 4 members will be left to serve the appellate body.
- By January 2020, the appellate body would be left with only one member.

What are the reasons behind U.S' move?

- In many instances appellate body has imposed some restrictions on the ability of the U.S to resort aggressive unilateralism at the WTO.
- U.S has not been able to reconcile itself with the findings of the appellate body against some of its domestic practices in anti-dumping, countervailing duty and safeguard proceedings.
- The practice of the appellate body members continuing to adjudicate an appeal even after expiry of their tenure is also concerning US.
- So it that the appellate body of overstepping its boundaries, leading to judicial activism in trade and environment disputes.

8.6 EU's PESCO defence pact

Why in news?

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

How is EU's security apparatus evolving?

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

What are the specifics of PESCO?

- Touted as EU's most ambitious project, PESCO's primary focus is slated to be defending Europe and complementing NATO.

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

What are the expectations?

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

G.S PAPER III

9. Economy

9.1 Economic Rebound

Why in news?

Central statistics office (CSO) data reveals GDP grew 6.3 per cent in the July-September quarter.

What does GDP estimates imply?

- The 6.3% is higher than the 5.7 per cent GDP growth in the April-June quarter, but lower than the 7.5 per cent growth in the second quarter of last fiscal.
- Gross value added (GVA), which is summation of agriculture, industry and services, also grew to a three-quarter high of 6.1 per cent compared to 5.6 per cent in the previous two quarters.
- The Q2 growth numbers place the government in a better position with respect to spending to spur economic activity.

AT A GLANCE — in % ■ Q1FY18 ■ Q2FY18

	Q1FY18	Q2FY18
Agriculture growth	2.3	1.7
Industry growth	1.6	5.8
Services growth	8.7	7.1
Growth in demand*	6.7	6.5
Investment growth**	1.6	4.7
Growth in govt final consumption expenditure	17.2	4.1

*Denoted by private final consumption expenditure
**As given by gross fixed capital formation
GDP: Gross domestic product;
GVA: Gross value added
Source: Central Statistics Office

What are the reasons behind the economic rebound?

- GDP data shows that the impact of demonetisation and GST has worn off.
- It marks a reversal and is driven by manufacturing, and investment growth, supported by strong growth of refinery products and steel output.
- Manufacturing activity pushes up GDP growth, investments grow by 4.7% in Q2.
- Global rating agencies has upgraded India's sovereign credit rating for the first time in 14 years on account of progress in economic and institutional reforms boosting growth potential.

What are the areas of concern?

- Q2 GDP growth may have been underestimated due to lack of adequate data on GST collections and sales tax.
- While investment grew 4.6 per cent in Q2 compared to 1.6 per cent its share in GDP fell to 27.5 per cent from 29.9 per cent in Q1.
- While manufacturing grew 7 per cent in the second quarter against 1.2 per cent in the first, services sector growth showed a significant decline to 7.1 per cent from 8.7 in the previous quarter.
- None of the segments grew in double digits though trade, hotel, transport, etc. services rose 9.9 per cent, albeit lower than 11.1 per cent in the previous quarter.
- Agricultural growth fell to 1.7 per cent in Q2 from 2.3 per cent in the previous quarter because of a sharp decline in the production of food grains during the kharif season.
- Small and medium enterprises and exporters, however, continue to face return-filing issues and working capital constraints due to a slow release of refunds.
- The Economic Survey had forecast GDP growth for the fiscal year in the range of 6.75-7.5 per cent, but its second volume later said that 7.5 per cent might be difficult to achieve.

9.2 Mid-Term Review of Foreign Trade Policy

Why in news?

The mid-term review of the five-year Foreign Trade Policy (FTP), which was rolled out in 2015, was released recently.

What are the highlights?

- **Incentives** - Incentives under the Merchandise Export from India Scheme (MEIS) have been raised.
- An increase from 4% to 2% for leather, textiles, agriculture products and carpets has been announced in this regard.
- Service Exports from India Scheme (SEIS) incentive is raised by 2% with a view to boosting services sector exports.
- Also, supplies of goods and services to SEZs to be treated as zero rated under GST.
- Import of second hand goods for repair/refurbishing/re- conditioning/re-engineering is made free.
- **Scrips**- Exporters are given duty exemption scrips under the FTP, pegged at a certain percentage of the total value of their exports.
- The scrips can be used to pay duties on inputs including customs levies and can also be traded in the market.
- Validity of Duty Credit Scrips has been increased from 18 to 24 months to enhance their utility in the GST framework.
- The GST for transfer and sale of these scrips has been abolished and brought to zero from 12%.
- The Centre has also allowed duty free imports for exports against self-certification.
- **Support systems** - A professional team will be set up to assist and support exporters in accessing markets, meeting regulatory norms, etc.
- A team of experts will also be set up to assist exporters on **GST.**
- A New Logistics Division to promote integrated development of the logistics sector will be put in place.
- The round-the-clock customs clearance facility has been extended to more number of sea ports and air cargo complexes.
- State-of-the-art trade analytics division in DGFT (Directorate General of Foreign Trade) will be set up for data-based policy actions.
- New Services Division is planned in DGFT to examine Exim policies and procedures to push services exports.
- **Besides**, new agricultural exports policy to focus on increasing exports of value-added agri products will be rolled out.
- Further, to address the capital blockage and liquidity problems of exporters, the government plans an e-wallet from April 1, 2018.

What are the possible benefits?

- Export is a strategic part of economic policy and thus logically a part of the foreign policy too.
- FTP review focuses on improving ease of trading across borders for exporters and importers.
- It also focusses on exploring new markets and products aimed at increasing India's share in the traditional markets and products.
- This is perhaps to enhance participation of Indian industry in global value chains.
- Promotion of exports by MSMEs and labour intensive sectors is expected to increase employment opportunities for the youth.
- The review is aimed at taking corrective steps by assessing the impact of export sops on various sectors.
- However, the package may not lead to immediate export growth but may contribute to stall the decline in growth of shipments.

9.3 Bi-Monthly Monetary Policy Review

Why in news?

The fifth bi-monthly monetarypolicy review of the ongoing fiscal year was released by the RBI.

What are the highlights?
- The six-member monetary policy committee (MPC) has kept the policy repo rate unchanged at 6%.
- Repo rate is the interest rate at which banks borrow funds from the central bank to overcome short-term liquidity mismatches.
- Continuing with its neutral stance, the MPC reiterated its commitment to keeping CPI inflation at a target of 4% while supporting growth.
- On development and regulatory policies, the RBI announced rationalisation of the merchant discount rate.
- This is to give a further fillip to the acceptance of debit card payments across a wider network of merchants.
- RBI also permitted the overseas branches/subsidiaries of Indian banks to refinance external commercial borrowings (ECBs) by raising fresh ECBs.
- This applies to top-rated corporates as well as 'Navaratna' and 'Maharatna' public sector undertakings.

What is the rationale?

- The recent reversal of declining growth trend with an economic revival in the recent quarter hints at no pressing crisis on the growth front.
- Thus, the cautious stance of MPC is certain to be primarily driven by the inflation concerns.
- Having committed itself to keeping inflation within 4%, the MPC was expected to take a serious view of 3.6% retail inflation.
- Inflation forecast for the second half of 2017-18 has been slightly raised to 4.3-4.7% from the earlier forecast range of 4.2-4.6%.
- The MPC cited various reasons -
    i. Fuel and food prices have indeed increased in recent months
    ii. food prices are expected to stay elevated owing to lower rabi acreage than last year.
    iii. oil prices going up
    iv. the impact of increase in house rent allowance (HRA) by the Centre
    v. bond market trends seem to suggest rising inflationary expectations
    vi. risk of fiscal slippage
    vii. status of rupee in the event of a rising interest rate differential possibly due to the imminent reversal of the rate easing cycle the world over
- The status quo in interest rate makes sense to resolve the NPA issue before expecting monetary transmission.
- Also, banks need to keep deposit rates attractive so that long-term savings are not depleted, impeding their ability to make long-term loans.

What are the drawbacks?

- The MPC has not addressed growth issues, while maintaining its growth forecast for 2017-18 at 6.7%.
- The economy remains demand-constrained, and needs a push either from fiscal or monetary policy.
- The MPC has emphasized predictable concerns over "fiscal slippage" and its inflationary effects.
- But it needs to go beyond being a plain inflation forecaster.

- MPC should certainly do a dynamic analysis of the economy.
- Notably, central banks the world over monitor <u>job trends</u>, but this does not figure in the MPC's scheme of things.
- Trends in <u>savings, investment and debt</u> need to be placed in the public domain, as well as the MPC's take on them.

9.4 Financial Stability Report 2017

Why in news?

Financial stability report (FSR) of the RBI as been released

What is FSR?

- Financial Stability Report (FSR) is a biannual publication which reflects the overall assessment on the stability of India's financial system.
- It will discuss India's resilience to risks emanating from global and domestic factors and issues relating to development and regulation of the financial sector.

What are the factors which makes Indian economy unstable?

- Public sector banks, which account for almost 70 per cent share in the country, even private banks are experiencing much turbulence on bad loans.
- Group of public sector banks are also highly vulnerable to further declines in asset quality and higher provisioning needs.
- Thus balance sheets of both public sector banks and quite a few large corporate houses are in terrible shape and were seen as a major obstacle to investment and reviving growth.

What are the recent findings of the report?
- Government has taken steps to recapitalise public sector banks to enable them to lend afresh and institutionalise a system to reduce stressed loans through IBC.
- FSR has raised pertinent questions about such moves having a sustainable solution.
- Credit growth of scheduled commercial banks (SCBs) has improved but the banking stability indicator (BSI) suggests that the asset quality in the Indian banking sector is worsening.
- Report also points out there is a worrisome development in credit quality of large borrowers, who have aggregate exposure of Rs 5 crore or more.
- This essentially means that stressed companies are still not able to generate enough revenue to honour loan payments.
- FSR concludes that the gross non-performing assets GNPA ratio may increase to 10.8 per cent by March 2018 and further to 11.1 per cent by September 2018.

Quick Fact

BSI
- It is an asset quality indicator for banks.
- It is the expected number of banks that could become distressed given that at least one bank has become distressed.
- If BSI is higher more banks are expected to become distressed if one bank in the system is distressed.

9.5 Slippage in Fiscal Targets

Why in news?

- The government has breached its annual fiscal deficit target in just 8 months of the fiscal year.

What is the current status?

- Fiscal deficit is the difference between the government expenditure and revenue.
- Fiscal deficit target is fixed at 3.2% of the gross domestic product (GDP).
- Accordingly the Budget Estimate (BE) was Rs 5.5 lakh crore target for the current fiscal year.
- However, fiscal deficit for April-November 2017 has reached Rs 6.12 lakh crore.

- This means that the fiscal target for the current year has already reached 112% of the Budget Estimate.
- This is the highest deviation from the Budget Estimates (BE) for the first eight months since the 2008 global financial crisis.

What are the causes?

- The main causes for the widening deficit are
  i.   drop in RBI's profits
  ii.   lower GST collections and non-tax revenues
  iii. higher expenditure
- The Centre is facing a considerable tax revenue shortfall, and shortfall due to low indirect tax revenue is expected to occupy a larger portion.
- Notably, GST collections were also far below the government target.
- Further, irrespective of the planned disinvestment revenue, the shortfall in the non-tax revenues is considerably worrying.
- The only positive for the government is that the direct tax collections are optimistic with the target.

What are the implications?

- **Fiscal** - The government needs to have a net fiscal surplus in the next four months if it has to meet its fiscal target, which is a difficult ask.
- Significantly, the government plans to borrow Rs 50,000 crore additionally, which will only add to the problem.
- Notably, for the same period, the 'Revenue Deficit' stood at 152% of the total target.
- This indicates that even the quality of the fiscal deficit is poor as much of the money is not going into asset creation.
- **Policy challenges** - For the deficit target to be met, capital outlay and net lending would have to contract for the rest of the fiscal year.
- This would have negative implications for investment as well as overall economic activity.
- This could further potentially affect the tax revenues.

9.6 The Financial Resolution and Deposit Insurance Bill – Part II

What is the issue?

- FRDI bill is expected to be tabled in winter session of the parliament.
- But it has raised concerns among depositors on how they would be repaid in case of liquidation of banks.

What is the existing method?

- The Deposit Insurance and Credit Guarantee Corporation (DICGC) is an RBI subsidiary, established in 1971.
- In case a stressed bank had to be liquidated, the depositors would be paid through DICGC.
- It insures all kinds of bank deposits up to a limit of Rs.1 lakh.
- It is mandatory for banks to pay a sum to the DICGC as insurance premium.
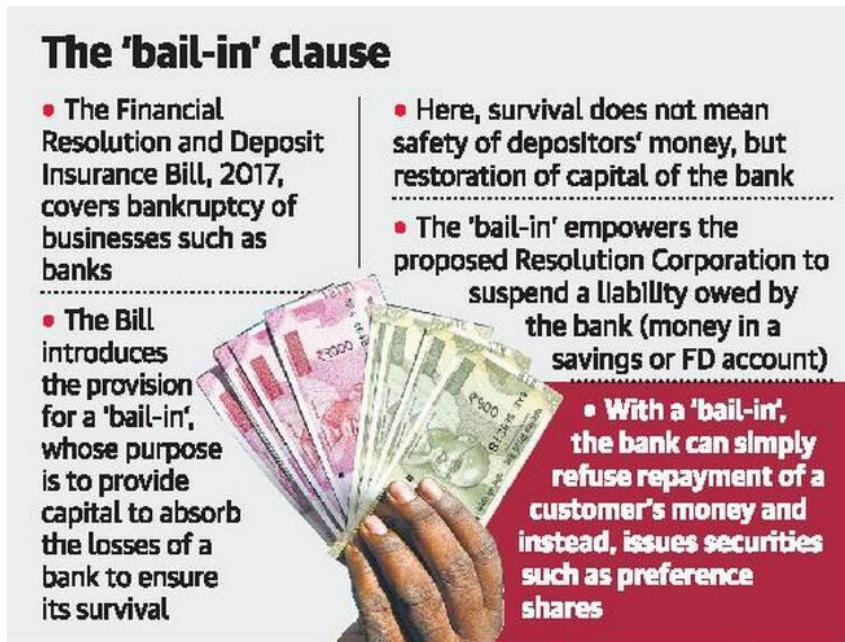
What are the concerns in the proposed bill?

- The proposed Bill seeks closure of the DICGC, as the credit guarantee will be taken care of by the Resolution Corporation.
- The Resolution Corporation is empowered to monitor financial firms, calculate stress and take corrective actions in case of a failure.
- According to Section 52 of the proposed Bill, depositors will lose their rightful claim to retrieve their savings in case of liquidation of banks and insurance companies.
- It does not specify the fixed insured amount to be paid by the bank to the resolution corporation.
- It does not even specify the amount a depositor would be paid in case of liquidation.
- It is given that corporation may decide on the compensation in case of any bank failure, which could well be less than Rs. 1 lakh.
- It also proposes 'bail-in' as one of the methods to resolution, where the banks issue securities in lieu of the money deposited.
- In the past, the bail-in efforts had largely worked against depositors.
- The ambiguities on how the depositors would be repaid needs to be addressed.

- Thus, there is a need to enhance insurance cover on deposits which should ideally continue to be managed by the RBI.

What is the FRDI Bill?

- It aims to limit the fallout of the failure of institutions like banks, insurance companies, non-banking financial companies, pension funds and stock exchanges.
- The FRDI Bill is aimed at insuring the money of a bank's depositors in the case of an eventuality where the bank would have to be liquidated.
- The FRDI Bill is currently pending before a Standing Committee of Parliament.
- The committee will submit its report in the upcoming winter session of Parliament.

Then why we need FRDI?

- Banks have become a repository of public faith in the financial system.
- Failure of a bank has repercussions that go well beyond savings and lending, it has an impact on the systemic stability of a country.
- Thus rules for bankruptcy of a regular business cannot be applied to bank failures.
- The FRDI Bill is an attempt to make the system more credible, less chaotic, and systematic in times when credibility is at risk, by treating banks differently from regular corporations.

What are the positives in the law?

- **Resolution Corporation -**The Bill brings in a system of risk-based monitoring of financial institutions.
- At the stage of 'critical' risk to viability, the proposed Resolution Corporation is empowered to takes all the decision not the banks.
- The Resolution Corporation can use "bail-in" clause only in consultation with the regulator (RBI).
- **Curtailing the power -** During global financial crisis 2008, governments used tax-payer money was used to recapitalise the banking industry.
- The Bill makes it explicitly clear that only such liabilities may be cancelled where the liability/instrument contains a bail-in provision.
- **Transparent -**It makes it clear that the Resolution Corporation will specify the liabilities to be bailed in and that will be put up in the public domain before finalisation.
- Creditors/depositors will need to consent in advance to have their liabilities bailed-in.
- **Accountable -**Even when liabilities are being bailed in, the Bill makes it incumbent upon the Resolution Corporation to follow the prescribed route.
- Here, uninsured depositors are placed higher over unsecured creditors and amounts due to the Central and State governments.

- **Guaranteed compensation -** FRDI Bill gives aggrieved persons a right to be compensated by the Resolution Corporation if any of the safeguards have not been followed during a bail-in or in the conduct of any other resolution action.

9.7 Insolvency and Bankruptcy Code (Amendment) Bill 2017

Why in news?

The Insolvency and Bankruptcy Code (Amendment) Bill 2017 was introduced in the Lok Sabha to replace an earlier ordinance.

What was IBC, 2016?

- The Insolvency and Bankruptcy Code (IBC) was enacted in 2016 to facilitate a time-bound resolution for ailing and sick firms.
- It could either be through closure or revival, while protecting the interests of creditors.
- Under IBC, either the creditor (banks) or the loaner (defaulter) can initiate insolvency proceedings.
- It is done by submitting a plea to the adjudicating authority, in this case, the National Companies Law Tribunal (NCLT).
- The resolution process was expected to aid in reducing the rising bad loans in the banking system.

What is the need for changes?

- There was a concern that the resolution process could leave scope for the defaulters to take advantage of the situation.
- Notably, the provisions allowed them to come back into the management by paying a fraction of the defaulted amount.
- Addressing this, an ordinance was brought in later, which prevented unscrupulous promoters from misusing the provisions of the IBC.
- It thus barred from participating in the resolution process, the following:
    i. wilful defaulters
    ii. defaulters whose dues had been classified as NPAs for more than a year
    iii. all related entities of these firms
- Consequently, many entities that acquired distressed assets were disqualified from the bidding process, as these were classified as NPAs.
- Similarly, banks opting to convert their debt into equity under the RBI's restructuring scheme would have become promoters of these insolvent companies.
- And hence these have also been barred from the resolution process.
- These anomalies called for changes to make the debt resolution process easier and more efficient.

What are the highlight provisions of the bill?

- The amendment bill will replace the earlier ordinance on the Insolvency and Bankruptcy Code.
- It has addressed concerns about some of the stringent provisions in the ordinance and seeks to streamline the law and plug loopholes.
- Accordingly, now, wilful defaulters and existing promoters can become eligible to **submit a** **resolution plan** if they repay their dues and make their bad loans operational.
- Also, defaulters who had participated in the insolvency proceedings before the enactment of the ordinance can also **bid** **for stressed assets** provided they clear their dues in a month.
- Notably, these promoters were earlier barred from taking part in the resolution process of the companies.
- It also allows guarantors of insolvent firms to bid for other firms under the insolvency process.
- Further, asset reconstruction companies, alternative investment funds (AIFs) such as private equity funds and banks can now participate in the bidding process.
- The bill thus seeks to strike a balance in the trade-off between punishing wilful defaulters and ensuring a more effective insolvency process.
- The bill also seeks to bring any individual who was in control of the NPA under the ambit of the insolvency code.
- It lays out that the individual insolvency law will be implemented in phases.

What are the concerns?

- All bad loans may not be the result of wilful default, diversion or misappropriation of funds.
- In a market driven economy, failure can be for various reasons.
- These may include change in market conditions, severe competition, change in technology, change in government policies, etc.
- The law thus does not recognize promoters facing genuine operational or financial difficulties because of external factors.
- These factors for defaulting should also be recognised and resolutions provided for, to help bring the economy back on track.

9.8 Future Trading of Crypto-Currencies

Why in news?

Two futures exchanges in the US gave the green light to list bitcoin futures.

What is the fallout?

- It is a significant step in allowing mainstream investors to buy and sell the crypto-currency.
- As a result, Crypto-Currency rocketed around $11,000, while it was trading just below $1,000 in January.
- The rupee volume of bitcoin trades runs at around Rs 125 crore per day and 1.5 million Indians are active bitcoin traders.
- Other cryptocurrencies like Ethereum too have shown equally impressive gains
- But it is to be understood that, this is clearly a bubble.
- As more money is chasing this limited supply, prices have risen.
- Such bubbles arise when the market finds it hard to accurately value a new concept.

What is the rationale of traders who buy it?

- They expect that bitcoin will be recognised as a currency by more nations.
- Currently, only Japan among the G-7 accepts it as a legitimate currency.
- They also expect that more merchants, including e-commerce giants like Amazon and Alibaba, will accept bitcoin.

What are the negatives?

- Virtual currencies create multiple regulatory concerns.
- Bitcoin is convenient for hawala transactions.
- It can be bought using rupees and sold in euros, dollars, or yen, thus facilitating capital flight.
- Virtual currency-denominated Initial Public Offerings have been launched by many dubious start-ups, which seek to bypass market regulators.

Can it be banned?

- Bans are impossible to enforce.
- Anybody can just memorise private keys, retain no physical evidence of ownership, and make bitcoin transactions from any internet connection.
- Most central banks and tax authorities have not even agreed on basic definitions of virtual currencies.
- So they should emulate the Japanese and treat bitcoin as a currency, laying down rules for usage and clarifying tax treatment.

9.10 Initial Coin Offering

What is the issue?

- Globally, there has been a silent boom in ICO fund-raising, with much of the action focussed on Europe and North America.
- With global regulators issuing warnings about this sprawling market, it is essential to understand its working and the risks associated with it.

What is an Initial Coin Offering (ICO)?

- An Initial Coin Offering (ICO) is used by the startups to bypass the rigorous and regulated capital-raising process required by venture capitalists or banks.
- More accurately known as token sales, ICOs are unregulated means of raising money from public investors, to finance a startup.

How does it work?

- When a startup firm wants to raise money through an Initial Coin Offering (ICO), it usually creates a plan on a whitepaper.
- It specifies the following:
    i. what the project is about
    ii. what need(s) the project will fulfil upon completion
    iii. how much money is needed to undertake the venture
    iv. how much of the virtual tokens the pioneers of the project will keep for themselves
    v. what type of money is accepted
    vi. how long the ICO campaign will run for
- During the ICO campaign, interested public investors buy some of the distributed cryptocoins with fiat or virtual currency.
- These coins are referred to as 'tokens'.
- These are much similar to shares of a company sold to investors in an Initial Public Offering (IPO) transaction.

What are the different kinds?

- Two kinds of ICOs are active in the market.
- One type raises money to fund a new virtual currency or blockchain project that aims to reflect the success of the Bitcoin or Ether.
- These ICOs are attractive with the fact that the tokens can be exchanged for the new virtual currency, once it takes off.
- The other set of ICOs simply raise money to fund tech startups.
- Simply, a percentage of the cryptocurrency is sold to early supporters of the project.
- This is in exchange for legal tender or other cryptocurrencies, but usually for Bitcoin.
- It represents an informal ownership share in the business they fund.
- The expectation is that the tokens will appreciate in value with the underlying business.

How is it different from the IPOs?

- Essentially, while IPOs deal with investors, ICOs deal with supporters that are keen to invest in a new project.
- The word 'informal' is key to understanding the concept of ICOs.
- In an IPO, the rights in the case of shares bought are legally protected by the elaborate securities market regulations.
- On the other hand, the legal status of ICO 'tokens' is uncertain because many countries, including India, haven't yet framed any regulations in this regard.
- Also, companies that raise money through IPOs are required to file and get approval for a detailed prospectus from regulators.
- They are also required to provide ongoing disclosures to investors.
- ICOs, however, evade all these rules and simply issue a white paper sketching out business plans.

What is the concern?

- One of the reasons for the recent interest in ICOs is certainly the multifold rise in prices of virtual currencies such as bitcoins.
- India is also seeing a spell of startup action around the virtual currency and blockchain ecosystem.
- However, the regulatory status of ICOs is not firmly established in India.
- The RBI has warned investors of the risks of experimenting in virtual currencies and is considering regulating crytocurrencies.
- On the other hand, SEBI is yet to express its official views on ICOs.
- Notably, even SEBI's global counterparts are still grappling with the issue of whether to treat digital tokens as 'securities'.

- Given the absence of any kind of regulatory framework in place, venturing into ICOs would be risky for the public investors.
- Notably, funds that are lost due to fraudulent initiatives may not be recoverable.

9.11 Mutual Funds and Portfolio Managers in Commodity Derivatives Segment

Why in news?

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

What are Commodity Derivatives?

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

What are Mutual Funds and Portfolio Managers?

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

What is SEBI's recent proposal?

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

What are the benefits?

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

What are the cautionary steps to be taken?

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

Quick Fact

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

9.12 Concerns with FPI

What is the issue?

- Singapore stock exchange and Dubai Gold and commodities exchange are planning to expand their portfolios in India.
- These decisions are taken in a backdrop of uncertain environment for Foreign Portfolio Investments in India.

What are recent portfolios decisions about?

- A portfolio is a grouping of financial assets such as stocks, bonds and cash equivalents, as well as their funds counterparts, including mutual, exchange-traded and closed funds.
- Portfolios are held directly by investors and/or managed by financial professionals.
- Usually an investors should construct an investment portfolio in accordance with risk tolerance and investing objectives.
- Recently Singapore Exchange (SGX) has decided to offer single-stock futures (SSF) on Indian stocks.
- The Dubai Gold and Commodities Exchange (DGCX) is also considering expanding its portfolio of Indian SSF.
- Volumes in India's derivatives trading segment is expected to be adversely affected by these decisions.

How these decisions would hurt India?

- Unlike the National Stock Exchange (NSE) and the BSE, the SGX and the DGCX are open 24x7 and these are hard-currency environments.
- There are no transaction taxes akin to India's securities transaction tax (STT) and the local regulators also place no restrictions on foreign portfolio investors (FPIs).
- Given that the SGX and the DGCX offer comfortable regulatory environments, a lot of the derivatives trading volume will likely shift to these offshore centres.
- India will lose out on tax revenue and brokerage income and traders will face disadvantage of being responsive.

What are the barriers for FPI in India?

- In July, SEBI banned trading in derivatives via P-Notes and demanded direct registration of FPIs carrying out derivatives trades.
- The regulator said derivatives trading via P-Notes would be allowed only to hedge underlying cash positions.
- At the time of the ban, P-Note holders had open positions of over Rs 40,000 crore in the futures and options segment of the NSE, all of them where closed out after this move .

- A further barrier for US-based funds was that they cannot take direct exposure to derivatives offered by Indian exchanges, which are not approved by America's Commodity Futures Trading Commission (CFTC).
- Many used P-Notes to bypass that requirement, as both SGX and DGCX are CFTC-approved and Indian exchanges are not.
- High Securities Transaction Tax (STT) in India is being another source of friction for FPIs, which are being significant cost for high-volume traders.

Quick facts

FPI
- Foreign portfolio investment (FPI) consists of securities and other financial assets passively held by foreign investors.
- It does not provide the investor with direct ownership of financial assets and is relatively liquid depending on the volatility of the market.
- Foreign portfolio investment is different from foreign direct investment (FDI).

Participatory Notes (P-Notes)

- These are financial instruments used by investors or hedge funds that are not registered with the Securities and Exchange Board of India (SEBI) to invest in Indian securities.
- Any dividends or capital gains collected from the underlying securities go back to the investors.
- Indian regulators are against participatory notes because they fear that hedge funds acting through participatory notes will cause economic volatility in India's exchanges.

SSF
- Single Stock Futures (SSF) are derivatives instruments that give investors exposure to price movements on the underlying share.
- A futures contract is a legally binding agreement that gives the investor the ability to buy or sell an underlying listed share at a fixed price on a future date.

STT
- Securities Transaction Tax is levied on every purchase or sale of securities that are listed on the Indian stock exchanges.
- This would include shares, derivatives or equity-oriented mutual funds units.
- The rate of tax that is deducted will vary with different types of transactions and securities.
- STT is deducted at source at the time of the transaction itself, the net result is that it pushes up the cost of the transaction done.

9.13 Inclusion of Electricity in GST

What is the issue?

With transitional implementation challenges with the GST being sorted out, it is a high priority now that electricity is included in GST.

What is the current status?

- Currently, there is a confusing multiplicity of electricity taxes.
- Notably, the taxes vary by states and across user categories, low for consumers, high for industrial users, etc.
- Taxes levied by the states vary from 0 to 25% and is an important source of revenue for them.
- On average, electricity taxes account for about 3% of own tax revenues of the states, going up to close to 9% in some states.
- States are, therefore, reluctant to give up the right to levy these taxes.

What are the concerns?

- **Costs** - The most serious concern is that costs to industrial users of electricity are higher.
- This is because they include the taxes on inputs that have gone into the supply of electricity.
- These include taxes on raw materials (coal, renewables) and other equipment (solar panels and batteries).
- Not being part of GST means that no inputs tax credit can be claimed.
- This certainly results in embedding of the tax in the final price.
- **Embedding of taxes** - This clearly hurts manufacturers selling to the domestic market.
- In particular, this affects the exporters of electricity-intensive products.

- It is because they are not liable to any duty drawback i.e. relief for taxes embedded in exports.
- **Industrial buyers of electricity** bear the impact of this in an indirect way.
- Populist politics has long ensured that consumers (and other users in agriculture) pay either nothing for electricity or very little.
- Ultimately, discoms cross-subsidise and charge higher prices to industrial users to make up for under-charging others.
- But the embedding of taxes adds an extra layer of cross-subsidisation.
- Totalling up all of these effects could lead to increased costs and lower margins for several industries.
- These margins are significant, especially for exporters who face strong international competition.
- **GST** - Currently, there is a large bias in favour of renewables in GST policy.
- Inputs to renewables generation attract a GST rate of 5% while inputs to thermal generation attract higher rates of 18%.
- Supporting renewables might be a conscious policy.
- But subsidisation is proliferating across policy instruments, making it difficult to quantify the overall support and is thus distorting.
- Thus, support for renewables should be direct and transparent.
- GST should not become the instrument for adding non-transparently to that support.

What could possibly be done?

- **GST** - If electricity is included in GST, there would be no discrimination between renewables and thermal energy.
- This is because all inputs going into both forms of electricity generation would receive tax credits.
- Including electricity in GST would also reduce or eliminate embedded taxes in electricity-using products.
- **Loss** - But both the central and state governments would lose revenues that would now accrue as input tax credits to the private sector.
- In addition, state governments would lose taxes from electricity use itself.
- The Centre could thus compensate the states only for the direct loss of revenues.
- However, benefits of the reforms would be greater to be shared between the Centre and the states.
- **Implementation** - To ensure that Centre does not suffer fiscal losses, the implementation with electricity should perhaps wait until GST revenues have stabilised.
- Inclusion of electricity in the GST would thus -
    i. reduce the costs for manufacturing
    ii. improve the competitiveness of exporters
    iii. reduce the cross-subsidisation of electricity tariffs that further undermines the competitiveness of manufacturers and exporters
    iv. eliminate biases and restore neutrality of incentives in electricity generation

9.14 Report on CBDT and Income tax

Why in news?

Comptroller and Auditor General of India (CAG) has tabled its report on Central Board of Direct Taxes and the income tax department.

What are the findings of the report?

- CAG has find out that there has been persistent and pervasive irregularities in respect of corporation tax and income tax assessment cases over the years.
- The latest audit report takes note of 457 high-value cases of such irregularities.
- The assessees (Tax payers) include some the best-known entities in the public and the private sectors.
- The CAG has detailed various ways in which tax officials have bungled in collecting these taxes.

What are the irregular ways used by tax officials?

- **Exaggerated demands -** Income tax department had raised exaggerated demands to the tax payers to achieve its revenue collection target.
- Usually a tax payer after filing taxes will get reimbursement from the income tax department after his tax filing is verified.
- The reimbursement paid include substantial amount of interest for the amount which is collected in excess.

- This interest amount is need to be paid by the income tax authorities, it is causing financial burden to them and to handle this expenditure they claim an exaggerated demand from the tax payers.
- At the same time tax payers are not given full credit for the taxes already paid.
- **Differential approach -** Many taxpayers for tax exemption use the way of donations to charities which actually do not exists and produce fake purchase documents of items which give them reimbursement.
- Income tax department did not adopt a uniform approach in dealing with such cases, in many instances they are favourable to such tax payers.
- **Exemptions -** Tobacco is the second highest revenue yielding commodity in India, abnormal excess production tobacco products over and above the deemed production had led to loss of revenue.
- Central Board of Excise and Customs had taken inadequate action against tobacco industry, but in case of other industries it had taken its action.

What are the implications of the report?

- Corporation tax and income tax together constitute 33 per cent of the Union government's revenues.
- Wide-scale discrepancies in such taxes could upset the overall budgetary calculations and also affect trust among honest taxpayers.
- The CAG has stated that "recurrence of such irregularities, despite being pointed out repeatedly" in earlier audit reports points to structural weaknesses on the part of the tax administration.
- Lack of transparency in taxation is also a massive disincentive for business in the formal Sector.

What measures needs to be taken?

- The tax department must ensure that taxpayers do not need to submit multiple returns and have quicker options of redress should a dispute arise.
- This is important as a huge amount of money is locked in litigation due to complicated tax rules and varying interpretations.
- Costly compliance and loopholes keep majority outside the income tax net, and this can be sorted out by implementing electronic assessments.

9.15 World Inequality Report

Why in news?

World Inequality Report 2018 has been recently released

What is World Inequality Report?

- It measures income and wealth inequality in a systematic and transparent manner.
- This report is on a global scale which showcases the trend in inequality across the world, providing a comparative perspective across countries.
- It seeks to fill a democratic gap and to equip various actors of society with the necessary facts to engage in informed public debates on inequality.
- It is published by World Inequality Lab at the Paris School of Economics.

What does recent report signify?

- It has brought into focus of economic progress in India and there are reported growth in inequality here since the mid-1980s.
- The reported had found that the top 1% of income earners received 6% of the total income in the early 1980s, close to 15% of it in 2000, and receives 22% today.
- It also explains combination of large privatizations and increasing income inequality has fuelled the rise of wealth inequality among individuals.
- The report also enables a comparison of economic progress made in India and China.

What are the key comparisons made between India and china?

- Since 1980, while the Chinese economy has grown 800% and India's a far lower 200%.
- At the same time inequality in China today is considerably lower than in India.
- The share of the top 1% of the Chinese population is 14% as opposed to the 22% reported for India.
- Per capita income in China was five times that of India in 2016 while the percentage of the population living on less than $1.90 a day was about 10 times less at the beginning of this decade.

What are the reasons behind china's growth?

- Imaginative public policy and a steady governancewas the ideology of china for which it had chosen Authoritative government.
- Leadership combined the drive for growth with the spreading of human capital.
- The spread of health and education in that country enabled the Chinese economy to grow faster than India by exporting manufactures to the rest of the world.
- Those goods may not have been good in quality but they were globally competitive, which made their domestic production viable.
- The resulting growth lifted vast multitudes out of poverty, which accounts for the relative equality of outcomes in China when compared to India.
- An ingredient of this is also the greater participation of women in the workforce of China, an outcome that eludes India.

10 Infrastructure

10.1 Infrastructure Status to Logistics Sector

Why in news?

The government has recently granted infrastructure status to the Indian logistics sector.

What was the need?

- India is home to leading industries such as automotive components, pharmaceuticals, cement, textiles, FMCG and e-commerce.
- Their operations depend hugely on warehousing and logistics.
- But India is ranked 35 out of 160 countries on the World Bank's Logistics Performance Index (LPI).
- The logistics spend in India also is almost 13% of the GDP, compared to well below 10% for the advanced countries.

What is the significance of Infrastructure status?

- It includes the logistics sector in the master list of infrastructure sub-sectors under a new head 'Transport and Logistics'.
- Minimum investment and area requirements to get the infrastructure tag for each category like multi-modal logistics park, cold chain facility and warehousing facility have been clearly defined.
- **Easy Credit -** This makes it easier for companies operating within these segments to raise long-term credit from banks and other financial institutions at lower rates.
- The inclusion also makes it easier for logistics companies to -
    1. Access larger amounts of funds as External Commercial Borrowings (ECB)
    2. Access longer-tenure funds from insurance companies and pension funds
    3. Be eligible to borrow from India Infrastructure Financing Company Limited (IIFCL)
- It also helps attract foreign investments.
- **Lower cost of logistics -** This also means that development firms with larger land parcels can utilise their excess land holdings to develop more infrastructure facilities, thereby boosting the supply of warehousing facilities.
- The coupled with easier access to capital will eventually bring down the cost of logistics.
- The LPI measures the state of trade and logistics based on parameters like customs, infrastructure, international shipments, logistics quality and competence, tracking and tracing and timeliness.

What are the immediate impediments?

- An inadequate road network and losses that occur during transportation are huge problems.
- Improvement of India's road infrastructure at a much faster pace is critical to minimise losses, both economic and environmental.

10.2 World Bank's Probe on Amaravati

Why in news?

World Bank panel seeks six months to decide whether a probe is required or not in Amaravati plan.

What is Amaravati?

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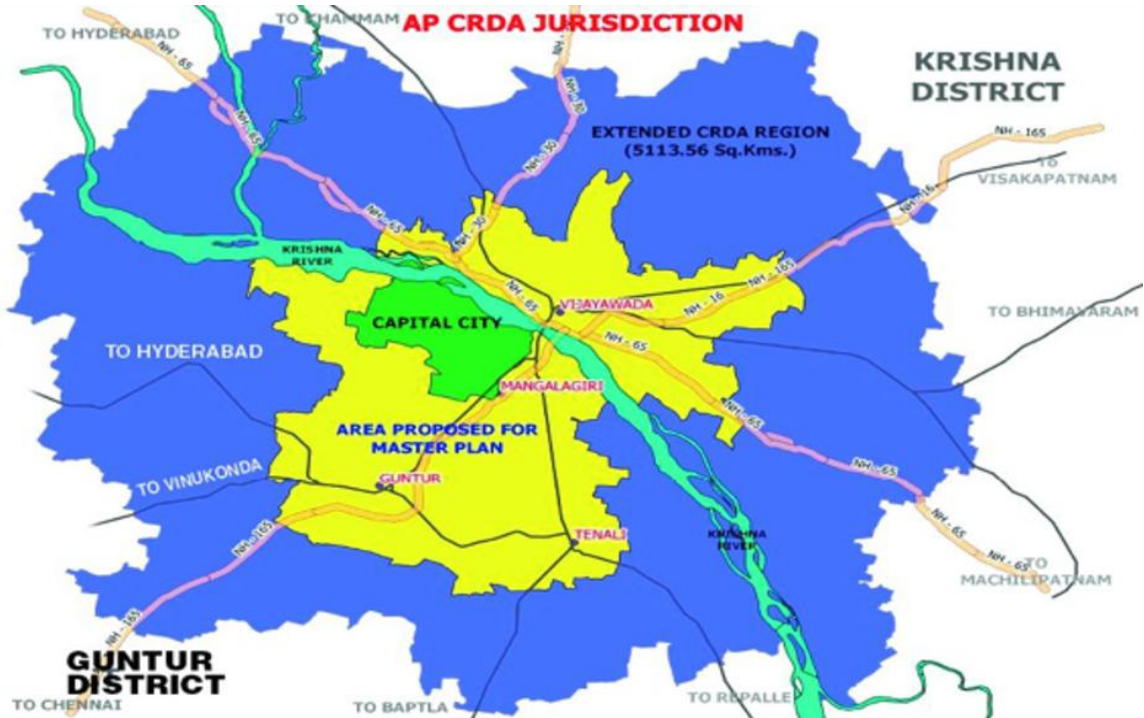
What is the financing mechanism for this project?

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

What is the probe about?

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

10.3 Concerns of shipbreaking industry

Why in news?

India has made a draft legislation to set Labour Safety and Environment Benchmarks for ship breaking.

What are the impacts of shipbreaking?

- Shipbreaking is a process of breaking down a ship, when it completes its life tenure..
- It is one of the most hazardous jobs in the world because most ships are used to carry radioactive materials, toxic wastes, extremely poisonous chemicals and oil.
- It directly affect the health of the workers, hundreds of manual labourers move onto the beach to dismantle each ship.
- Many ship breaking yard has poor working and living conditions, workers face many serious work-related injuries.
- It is also an environmental time bomb as workers strip the ships marooned on the sea shore.
- Which leads to severe contamination of the sea bed, eventually seeping into the marine food chain.

What is the account of shipbreaking industries in India?

- In 2016, India dismantled over 300 ships, against about 220, 140 and 70 in the case of Bangladesh, Pakistan and China.
- Alang in Bhavnagar district, Gujarat, considered the world's largest shipbreaking facility.
- Alang houses at least 50 companies in 'plots' along a 12-14 km stretch along the sea coast, employing an estimated 40,000 workers.
- There are no reliable records on accident deaths, but practical narrative estimates that for each day one worker dies for dismantling a ship.

What is the significance of the draft law?

- India, which along with Bangladesh dismantles most of the world's discarded ships, has drafted a legislation to set benchmarks for shipbreaking.
- The proposed law is aligned with the Hong Kong convention adopted by the International Maritime Organisation in 2009.
- Which is so far ratified by Norway, Congo, France, Belgium, Panama and Denmark.

What are the areas yet to be addressed by the draft?

- Ships in India and Bangladesh are dismantled on the beach rather than on dry docks, which adds to the toxicity of the soil, water and air.
- 'Beaching' is banned under EU regulations, while the Hong Kong convention pushes for clean beaching practices.
- Hong Kong convention is yet to be addressed by 15 countries with accounts for 40% of world's merchant shipping capacity.
- Greece and Germany are top offenders in outsourcing their vessels to be beached.
- Efforts to clean up the industry should include bringing such grey activities under the scanner.

Quick Fact

International Maritime Organisation

- It is the United Nations specialized agency with responsibility for the safety and security of shipping and the prevention of marine pollution by ships.
- Its main role is to create a regulatory framework for the shipping industry that is fair and effective, universally adopted and universally implemented.
- It is headquartered in London,there are 172 member states of the IMO, which includes 171 of the UN member states plus the Cook Islands.


10.4 GAIL Pipeline in Kerala

Why in news?

Kozhikode in north Kerala recently witnessed violent protests against the laying of a pipeline by the Gas Authority of India Ltd (GAIL).

What is the project?

- The Kochi LNG terminal was meant to ensure natural gas supply for domestic and industrial use in Kerala and in South India.
- GAIL envisaged a pipeline to transport natural gas from Kochi to Mangaluru and Bengaluru.
- The Kochi-Koottanad-Bengaluru-Mangaluru Pipeline (KKBMPL) project was thus conceived in 2007.
- The first phase aimed at linking the terminal with local industrial users, including Bharat Petroleum Corporation Limited.
- The second phase of the pipeline was to go through seven districts of Kerala, besides covering parts of Tamil Nadu and Karnataka.
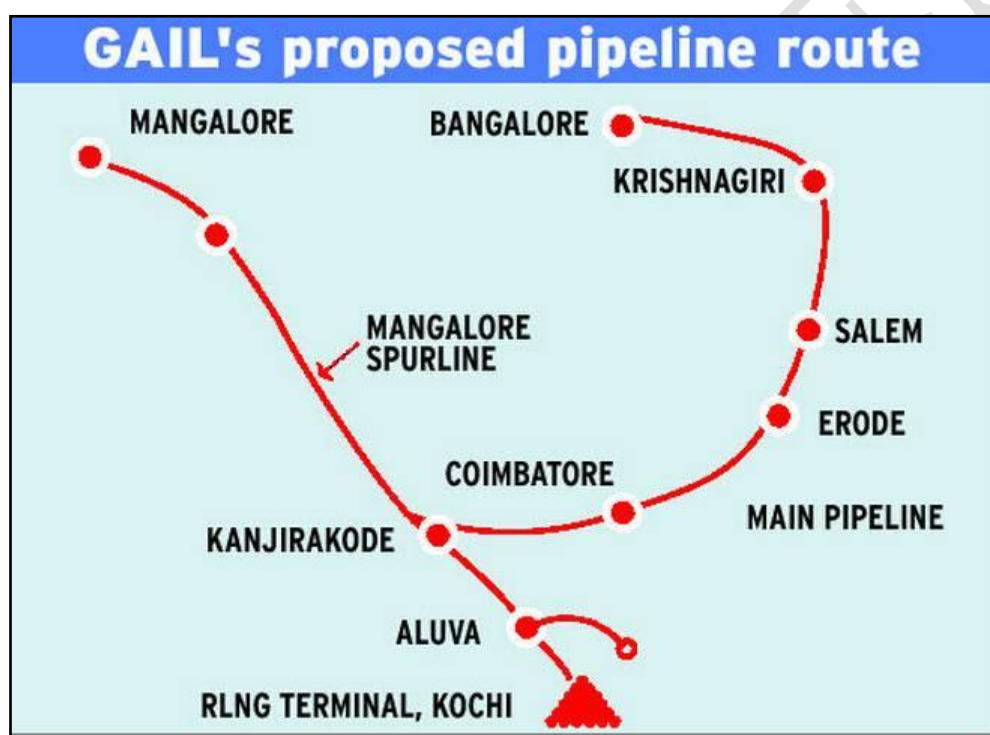
What are the concerns?

- The project has been delayed considerably because of resistance to **acquisition of land** under the **Right of Use (RoU)** agreement.
- The **compensation** for farmers and landowners who allow GAIL to lay the pipeline through their property is a contentious issue.
- The government has however doubled the compensation, and said it will be fixed by pegging the market rate at 10 times the fair price.
- Also, despite GAIL stressing that the LNG is both safe and essential for the state's development, the agitators have serious **safety concerns**.
- Consequently, GAIL had to terminate the contracts it entered into with construction firms to lay the pipeline.
- The protestors demand that the pipeline be **relocated** from populated areas and taken through the sea route, instead.
- This has been rejected by GAIL, which reportedly fixed the alignment with minimising impact on populated areas.
- Also, as of the land required in Kerala, 70% is under **paddy cultivation.**
- The Kerala section also requires 75 major horizontal drillings at the beds of **water bodies** to take the pipeline across rivers.

- Thus, so many factors surrounding the pipeline poses challenges for its unhindered implementation.
- Despite the disruption attempts, GAIL has managed to continue laying the pipeline, though under heavy police protection.
- However, the project, which should have been commissioned in 2013, now has a **revised deadline** of February 2019.
- Meanwhile, the delay is causing **huge losses** to the Kochi terminal and re-tendering is resulting in cost escalations.

Quick Fact

How does Right of Use (RoU) work?

- GAIL acquires the Right of Use from landowners and/or farmers.
- Owners are then paid compensation as per the Petroleum and Mineral Pipelines (Acquisition of Right of User in Land) Act, 1962.
- Ownership remains with the landowners but they shouldn't cultivate deep-rooted trees at a distance of 10 metres, or carry out constructions.
- GAIL pays compensation as per the amount fixed by the state revenue department.

10.5 Nissan Dispute - Need for BIT revision

Why in news?

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

How did the controversy evolve?

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

How did the TN government respond?

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

What are the challenges in resolution?

- **Tribunals** - The regulation of tax in international investment law is a highly contested issue.
- This is because various tribunals have adopted different interpretative approaches to fix the liability of a host state.
- **Anti-Arbitration** - With the rise of international arbitration, anti-arbitration injunctions are increasingly resorted to.
- These injunctions are sought to restrain the initiation or continuation of arbitration proceedings.

- In the Nissan case, the government of Tamil Nadu has approached the Madras High Court to restrain the CEPA arbitration.
- However, similar cases reveal that international arbitral tribunal exercised its jurisdiction irrespective of domestic courts' order.
- **Jurisdiction –** The claim relies on protections provided under an international agreement, the CEPA, and not on any domestic law.
- Moreover, it is the TN government which is a party to the anti-arbitration injunction proceeding and not the government of India.

What are the gaps in the existing policy?

- In 2015, the Model Bilateral Investment Treaty (BIT) was promulgated in response to various investment claims initiated against India.
- However, most developed countries are hesitant to comply with new standards.
- This is because
    i.   the revised Model BIT discourages investors
    ii.   specifies more regulatory risk by removing 'most favoured nation' clause
    iii. imposes a mandatory requirement of 'exhaustion of local remedies' for five years before resorting to an international forum for dispute resolution
- There were a series of investor-state disputes initiated under different investment protection agreements by various foreign investors in the recent period.
- Responding to this, India unilaterally terminated most BITs to which it was a Contracting Party.
- However, it is evidently becoming difficult for the country to avoid new disputes.

What is desired?

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

10.6 SC's Stay on NCLT order

Why in news?

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

What is the case?

- Unitech failed to deliver homes to thousands who booked apartments and has over 16,000 undelivered units from nearly 70 projects.
- It has over ₹6,000 crore debt and is yet to commence building flats for an estimated 19,000 homebuyers.
- The company has so far only paid a fraction of the money to customers who don't want to take possession of flats.
- The Supreme Court had earlier directed Unitech to fast-track delivery of flats or repay the money of homebuyers in its projects.
- The NCLT's order had come as a response to a plea of the Ministry of Corporate Affairs arguing that Unitech was a fit case for winding up.
- The NCLT had asked the existing directors not to function, and also not alienate their personal or company properties.
- The tribunal also permitted the government to nominate 10 directors to the Unitech board.
- However, the government was considering the interest of thousands of home buyers and small depositors; it wanted to take over the company management.
- Meanwhile, Unitech appealed against the tribunal's order in the Supreme Court.

- The government's move to take over the company without the court's permission has thus received condemnation.
- The Centre apologised for approaching the NCLT over a matter that was being dealt with by the top court.
- The Court has however stayed the NCLT order.

What is the significance?

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

What is the way out?

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

Government & NCLT

- Under the Companies Act, 2013, the central government may itself apply to the NCLT for an order.
- This is provided the central government is of the opinion that the affairs of the company are being conducted in a manner prejudicial to public interest.

10.7 Fire Accident in Mumbai

Why in news?

- A late night fire in a roof-top restaurant in Mumbai killed 14 people.
- This calls for a thorough probe and stricter enforcement of safety regulations.

How can such situations be dealt?

- **Current Case -** Ensuring the accountability of owners, managers, and agencies concerned and punishing for those guilty should be a high priority.
- It would be wrong to categorise deliberate acts as instances of mere negligence as there seems to be intentional safety violations.
- Further, immediate monetary compensation and other forms of support is to be provided to the families of the dead and the injured.
- **Holistic picture -** While the rooftop restaurant fire killed 14 people, a week earlier 12 people were killed in an industrial fire accident.
- Increasing frequency of such incidences is proving to become a catastrophe and enhancing the safety of building is now a pressing compulsion.
- A full-fledged crackdown is hence needed to determine all building safety violations in Mumbai and official connivances needs to be penalised.

What are the expectations from the trial?

- A professional analysis of fire tragedies involves assessing whether:
  - Possibility of igniting was actively reduced
  - Provision was made for controlling the spread of fire and smoke
  - Design was compatible for occupant escape and fire-fighter access
  - Structure was potent to avoid a collapse

- Hence, the Maharashtra government must ensure that its inquiry captures all these parameters and that the subsequent judicial process is not prolonged.
- Ensuring a robust prosecution and invoking stringent provisions against the guilty are important to win people's trust in the state machinery.

11. Agriculture

11.1 Need for Reducing Urea

Why in news?

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

What is the basis?

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

What is the anomaly?

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

What are the concerns?

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

What are the government efforts?

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

What is the way forward?

- The pricing policy for urea continues to remain highly subsidised.
- This makes it difficult to achieve any significant reduction in urea consumption.
- There are talks for 'Direct Benefit Transfer' (DBT) for fertilizer subsidies.
- If DBT is implemented, market forces would decide fertilizer prices.

- Consequently, this would encourage the industry to innovate and also eliminate all diversions to non-agri-uses and cross-border smuggling.
- This will also incentivise farmers to use fertilizers in appropriate ratios.

11.2 Agriculture Needs a Predictable Policy Framework

What is the issue?

Predictability and coherence in government policies are curtail to address farmer distress.

What are the recent trends?

- There has been a significant upsurge in pulse imports, in the range of 30% to 46%, in four out of the first six months of this financial year.
- But currently, along the currently adequate stockpile of pulses, the domestic production is also at a record high and a bumper rabi crop is expected.
- Among pulses chana and masoor are key contributors for India's pulses imports that totalled to over $1.6 billion in the previous two fiscals.
- Hence, the government slapped a customs duty of 30% on the import of 'chana and masoor dal' to prevent cheap imports from hitting farmer earnings.
- Notably, as international prices are staying low for long, traders are currently thought to prefer imports over local procurement due to the cost advantage.
- This is move is seemingly late, as imports pressures has already eased considerably since September.

What is the problem with such actions?

- Other than the late response, reflexively raising or breaking such tariff walls, as the production cycle warrants, doesn't add up to a serious long-term policy.
- Rather a policy for boosting farm incomes and ensuring food security should be focused and well thought.
- Notably, in the case of a key protein source like pulses, such actions may be counterproductive in the long run as it may hurt the exporter sentiments.
- Significantly, last year, while pulse prices were soaring in the Indian market, pacts were signed with multiple countries to increase pulses imports.
- If such strategic agreements are undermined impulsively, then it would become tougher to deal with times of shortages.

What is the way forward?

- Like investors, farmers too need predictability and coherence in government policies to be able to plan production cycles ahead and enhance earnings.
- Also, it needs to be recognized that increasing import duty won't automatically lead to increase in farm incomes.
- The challenge before the government is to enhance farm incomes without stirring up food inflation.
- Also, building and protecting carefully cultivated food security partnerships around the world is another key aspect.

11.3 Market Assurance Scheme

What is the issue?

- Central government proposes to launch the new "market assurance scheme" (MAS).
- Given the shortfalls with similar systems already in place, the proposal needs a relook.

What is the market assurance scheme?

- It is a new price support scheme under which states would be free to procure from farmers all crops for which MSP is announced.
- States can procure any quantity of coarse grains, millets, pulses and oilseeds, except rice and wheat.
- As, rice and wheat are already being procured by the centre for the public distribution system.
- Under MAS, the centre will compensate states for any losses due to procurement, capped at 30% of the procurement cost.
- For hill states and those in the north-east, the ratio of compensation will be 40%.
- It will be the concerned states' responsibility to dispose of the procured crops.

What is the need?

- The proposal comes in the backdrop of protests and demands by farmer groups for remunerative crop prices and loan waivers.
- Currently MSPs are announced for 23 crops but only paddy and wheat procurement is effective.
- Procurement by the centre of pulses and oilseeds in small quantities calls for a better system in place to address farmer distress.
- Under MAS, states are given the freedom to choose which crop to procure and in what quantities, when wholesale prices drop below MSPs.
- States will also be free to use the procured crops for targeted nutrition support programmes or sell them in the open market.
- The scheme proposes to strengthen the procurement mechanism by ensuring farmers do not suffer from marketing inefficiencies.

What are the concerns?

- **Markets** - Poorly functioning agriculture markets with lack of competition, cartelization and opaque price discovery which are causes of price distortions stand unaddressed.
- **Infrastructure** - The scheme will require the deployment of huge manpower and creation of massive infrastructure for purchasing, transporting and storing.
- Ensuring these may not be affordable for the state governments.
- **Agri practices** - The earlier physical market intervention-based system of price assurance in the case of wheat and rice has not been without its own disadvantages.
- It has resulted in:
    i. distortion of the cropping pattern
    ii. alienation of the private trade from the grain market
    iii. unwarranted accumulation of stocks on the government account
- Replicating the same in other crops would be ill-advised.
- **Fiscal** - There is a concern that the scheme could place fiscal pressures on the Union government.
- There are also some unfulfilled preconditions in place for the successful functioning of a scheme that spends public money.

What should be done?

- A lasting solution lies in making farming profitable by reducing production costs and improving returns on the produce.
- In this context, MAS is a more temporary measure and an eventual solution is to bring in greater competition in agricultural markets.
- Agricultural marketing reforms wooing private investment in setting up crop *mandis* to enhance competition must be expedited.
- The price deficiency payment mechanism is another novel way to address price distress. Click here to know more.
- There is also a need to put in place stable policies for agricultural pricing and trade, both external and domestic.
- In all, the Centre should take lead to put a proper system in place instead of passing on the responsibility to the states.

12. ENVIROMENT

12.1 Policy Challenges in Coal Mining

What is the issue?

- Many policy changes were introduced in the past 3 years including the introduction of e-auctions for captive coal blocks in early 2015.
- But the coal sector continues to remains reel under stress – which calls for a design overhaul to ensure viable allotments.

What is the present scenario?

- Of the 5 rounds of auctions held till date, response to 3 has been lukewarm, and the last one (Tranche V) got cancelled.

- Of the 72 coal blocks auctioned and allotted so far, only a handful have started operations – which has resulted in severe coal shortage.
- Even for the mines allotted to government undertakings, many are yet to finalise mining plans and appoint operators.
- Alos, severeal cases have been filed regarding various aspects of the auction.
- So far, policy focus has been to get the allotted blocks on stream at the earliest and increase production by allotting more blocks.

Is shortage affecting the power industry?

- Coal India's production grew just 3% to 554 million tonnes last fiscal, compared with 7% and 9% in 2015 and 2016, respectively.
- The company was recently asked to increase supplies to overcome the alarming shortage at thermal plants.
- Notably, the plant load factors (PLFs) at thermal plants plunged to 60% last fiscal from 77% in 2010.
- Any increase in PLF or capacity enhancement by addition of newer plants will put pressure on currently poor coal supplies.
- Significantly, a number of variables like in "increase in renewable & increased electrification" are shaping demand for thermal power.

What are the present challenges?

- **Commercial Mining -** The current design of coal-block auctions for the non-power sector is an ascending system and the government sets a floor price.
- The bids then escalate in line with the wholesale price index – which was noticed in the exhorbitant bids of the first 2 auctions.
- Subsequently, as the price of imported coal plunged it rendered these mines unviable and disincentivsed production.
- **Power sector Mining –** In captive power sector mining, a reverse auction method was followed, where sealing prices for output coal is set.
- The block allocation went to any miner who offers the most discounted price from CIL's coal output prices – thereby facilitating a negative bidding.
- Here, the allottee power generation company bears the mining cost and a forward premium, which can't be reflected in its output pricing to the discoms.
- Blended under-recoveries on that account are 50-80 paise per kWh and this increases as mining costs and forward premiums rise.
- Also, the lack of power purchase agreements has been an impediment.
- **Failing Targets -** If Coal India were to increase production by 10% annually, it could producing ~ 700 mtpa & Singareni Collieries can add about 100 mtpa.
- This means that the huge chunk of the 1.5 btpa goal by 2020, will have to come from captive and commercial mining through private entities.
- This would require significant policy, pricing and institutional reforms.

What is the way forward?

- Under the Mines and Mineral (development & regulation) Act, the premium for mineral auctions is a percentage of the prices notified by 'Bureau of Mines'.
- **Pricing Reforms -** On similar lines, an overall 'Coal Price Index' could be created by hormonising the currently available benchmarks like Coal India prices, spot e-auctions & imported coal.
- The Government can then link the auction premium for captive coal blocks for non-power sector and commercial blocks using that index.
- Such a mechanism would ensure the bidder pays as per market conditions — i.e. a higher premium if the index price is high, and lower when it is low.
- The logic is that this will ensure demand and prices reach market parity and will conbsequently ensure the health of the mining sector.
- **Streamlining Procedures -** Clear guidelines are needed regarding preparation of coal blocks before bidding.
- Fully explored ones with clear demarcation of boundaries and all approvals in place will go a long way in attracting bidder interest.
- Also, a nodal agency at the State level, with representation from all stakeholders, could be set up to facilitate land acquisition.

- It must complete identification of land for compensatory afforestation, enumeration of trees and cost-benefit analysis before auctions begin.

Captive Mining

- It is a concept where blocks are allocated dedicatedly for a specific industry.
- Any excess production arising out of such blocks needs to be sold to 'Coal India Ltd' at pre-determined prices.
- This is practiced to secure supplies for critical sectors like thermal power plants.
- Commercial Mining mines aren't restricted in their sale of output and the miner is free to sell their produce to the most profitable buyer.

12.2 Hurdles in Realising Roof Top Solar Plants

Why in news?

Union government is working on a "rent a roof" policy to support its plan to generate 40 GW of solar power by 2022.

What is "rent a roof" policy?

- Under the policy, a developer will take rooftops on rent and will offer lease to each household, and then feed the solar power to the grid.
- This policy works under net-metering system, by which a consumer is only billed for the electricity consumed after deducting the power generated from one's solar rooftop panels that is supplied to the grid.
- Union government aims to give the discoms financial incentives for every MW of rooftop capacity created in their area of operation.
- However, to avail themselves of incentives, discoms should create the capacities through tariff-based competitive bidding.
- The proposed scheme seeks to shift the game from captive players to energy companies (independent power producers, or IPPs).

What are the hurdles?

- Most of the discoms in India are State government-owned and are hesitant to take up such projects due to of their nature of self-protection from instant financial turmoil.
- These companies have refused to buy any surplus power from them.
- Therefore, factories and commercial establishments, like shopping malls, put up only as much rooftop solar capacity as would satisfy their demand, even if they have the space and wherewithal for more.
- As for individuals, rooftop solar has are not being attractive proposition as there is no clear government policy stand on installation and maintenance of roof top solar plants.
- There is also absence of policy direction on 'net metering', which would allow owners of captive rooftop plants to sell surplus power to the grid.
- In a tariff-based competitive bidding scenario, individual and small producers will be at a disadvantage.
- Competitive bidding process would also culminate in a power purchase agreement and a PPA is not particularly appropriate for a sell-only-surplus situation.

12.3 Viable Solution for Stubble Burning

Why in news?

- Paddy stubble burning is found to be a major contributor to Delhi's air pollution.
- Bans and fines are unlikely to be effective.
- To devise a policy with a chance to succeed, one needs to understand the reasons why farmers prefer burning.

Why stubble burning is bad?

- It causes smoke and particulate pollution that can move over long distance.
- It also implies loss of nutrients in soil.
- One tonne of straw when burnt releases 3 kg of particulate matter, 60 kg of carbon monoxide, 1,460 kg of carbon dioxide, 199 kg of ash and 2 kg of sulphur dioxide.
- In Punjab alone, 15 million tonnes of paddy straw is burnt every year, generating 45 million tonnes of particulates.
- Even after a stiff fine by Punjab and Haryana farmers still chose the option stubble burning.

Why farmers choose stubble burning?

- When manually harvested, the crops can be cut at the bottom and the stalks could be sent for other uses such as paper mills, animal bedding, etc.
- But manual harvesting has become very expensive as labourers charge around Rs 4,000/acre and take three to four days.
- So at present, paddy harvesting is done by combine harvester machine, which finishes it in half an hour and charges Rs 1,200/acre.
- But it leaves two thirds of the stalks on the ground.
- So stubble burning is the cheapest and quickest way to get their fields ready in time for the sowing of next crop.
- It kills weeds including those resistant to herbicides.
- It also kills slugs and other pests.

What are the alternate uses of stubble?

- Properly cut Stubble can be used to make bio-char or cellulosic ethanol, burn in a power plant or plant the next crop without tillage.
- Bio-char is a fine-grained, carbon-rich, porous product remaining after straw has been subjected to pyrolysis at low temperatures in an environment with little or no oxygen.
- Bio-char can improve water retention and increased soil surface area when used with other fertilisers.

What can be a viable solution?

- A farmer's economic compulsions dominate his decision to burn stubble.
- Incentives from power generators and ethanol manufactures to farmers bringing stubble will provide solution for this.
- Super SMS (straw management system) is an attachment that fits onto the combine harvesters for paddy, spreads residue evenly over the field.
- It should be deployed while cutting the stubbles.
- Initiatives should be taken to market biochar as a nutrient and private players should be involved for the infrastructures required.

12.4 Government's decision on Aarey forest lands

What is the issue?

- Maharashtra government is firm in ceding the Aarey forest land for metro projects.
- This has aggravated distress among civil society as the forest area falls under eco sensitive zone.

What is the significance of Aarey forest?

- It is considered to be Mumbai's green lung which spreads over 1,300 hectare in the city's northern suburb.
- It is home to several species of birds, insects and leopards, and was once part of the adjoining Sanjay Gandhi National Park.
- This forest was once used to be over 3,000 acres in north Mumbai and has been reduced to around 1,300 acres.

What are the threats faced by the Aarey forest?

- In 1949, 3,160 acres were pencilled off for the Aarey Milk Colony, which comprised a milk factory, pastures for cattle grazing and residential units for labourers.
- The land was handed over to Aarey Milk Colony, an autonomous body, and was declared a No-Development Zone.
- That changed in 2014, when the State government converted it into a Development Zone.
- Recently the Maharashtra government has decided to provide 3% (which will around 21 sq. kms) of this ecologically sensitive zone for a Metro car shed.
- Government is firm in its decision even after the recommendations of a technical committee appointed by the Bombay HC to relocate the car shed.
- Apart from the Metro car shed, the Goregaon-Mulund Link Road, now in its planning phase, will eat into the forest area.

What will be the consequences of government's move?

- The developments in this area have consequences of the felling of over 2,000 trees.
- The car shed construction is expected to be declared as a high security area which will rob enthusiasts of one of their favourite cycling or trekking venues.
- There are also concerns related to tribals who stay in Aarey and their rehabilitation.

12.5 Robustness of the Indian Patenting Framework

What is the issue?

- Indian has evolved strong standards for patents.
- This has led to the promotion of real innovation and protection of the consumers, with lowest financial burden.

What is Section 3(d)?

- In 2005, India made some remarkable amendments to the Indian Patents Act of 1970, to promote genuine innovation.
- It includes, Section 3(d), which is responsible for over 65% of all pharmaceutical patent rejections.
- This section provides for rejecting applications that are mere variants of known compounds and lack a demonstrable increase in therapeutic value.
- Basic patentability criteria are that the invention should be new, involve a significant inventive step, and should be capable of industrial application.
- Not meeting one of these was the most frequently used grounds for rejection.
- The section 3(d) was challenged in the Madras High Court and the Supreme Court on separate occasions, both of which decisively upheld its validity.

How did it make Indian patents structure strong?

- This means weeding out non-serious patent applications.
- In all, 1,723 pharmaceutical applications were rejected by the nodal agency, Indian Patent Office (IPO) between 2009 and 2016.

- Yet it still was in perfect compliance with the WTO norms.
- Such strong standards for patents resulted in effectively keeping medicines lowly priced and affordable in the country.
- This created significant opposition from global pharmaceutical majors and the countries of the developed world.
- e.g Novartis Case - patent for its anti-cancer drug Gleevec, rejected by invoking Section 3(d).
- Significantly, these countries continue to have weaker patent standards due to massive corporate lobbying.
- Hence they reject far lesser **bad patents** than India.

How section 3(d) reduces financial burden?

- In the last 10 years, Indian Patents Office (IPO) had rejected about 95% of all pharmaceutical related rejections on its own.
- Only 5% of the rejections were through the intervention of a third party, such as a pre-grant opponent.
- This is mainly because of Section 3(d), which provides the advantage of questioning an application at the IPO itself.
- Without the provision, the expensive and time consuming litigation will be the only alternate.
- In such cases, disputes are often settled before reaching a conclusion, in pay-for-delay settlements negotiated by patent owners.
- Patent claimers usually pay off generic manufacturers to stay off the market, which effectively increases the cost of medicines.
- Hence, without Section 3(d), Indian public would have to either bear the burden of invalidating a bad patent through litigation or the cost of expensive medicines.
- It would hence be wise for other countries to incorporate similar provisions in their patent laws to reduce the medical bills of its citizens and prevent undue profiteering by pharma companies.

12.6 Re-curving cyclones

Why in news?

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

What is the movement of Cyclones in Indian context?

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

What is a Re- curving cyclone?

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

What is its relevance with Ockhi cyclone?

- A challenge with re-curving cyclones is that it is hard for weather models to pick them early on as was the case with Ockhi.
- August rains in India was dampened, which was 13% short of Cyclone Ockhi.

- The whirlwind that arose in the Bay of Bengal and revved up over Sri Lanka was expected to pass over Lakshadweep and then ease into the Arabian Sea, far away from India's west coast.
- However, the cyclone ended up sharply swerving into parts of Maharashtra and Gujarat.
- It did not blow in very strongly because there it had not gained as much moisture from the Arabian Sea like it had over the Bay of Bengal and the Indian Ocean boundary.
- And though it wreaked havoc in Kerala and Tamil Nadu, and destroyed several beaches in Goa when it curved back to the land.

What are its implications?

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

## 12.7 Cyclone Ockhi - Disaster Management

What is the issue?

- Cyclone Ockhi that struck the Kanyakumari district in Tamil Nadu and parts of Kerala has left many fishermen dead and about a thousand of them missing.
- The large-scale loss of lives and livelihood has raised serious questions about disaster management and government response.

How was the disaster response?

- There are three basic shortfalls in the government's response:
    i.   the cyclone <u>warning</u> was delayed
    ii. the warning, when it came, was ineffective because it could not be <u>communicated</u> to thousands of fisherfolk who were already out at sea
    iii. once the cyclone struck, there was no war-like mobilisation and action for <u>rescue operation</u>
- Moreover, the response from the Coast Guard and the Indian Navy was very poor, as per the fishermen reports.
- The seaborne vessels and helicopters and vast array of ships, aircraft and state-of-the-art technology if deployed would have prevented loss of so many lives.
- Coast Guard ships accompanied by fishermen from the villages as navigation assistants would have made easier the search process.
- This was not carried out, and even when the Coast Guard did, it only went up to about 60 nautical miles.
- It was reluctant to go beyond citing jurisdictional limitations.
- The Disaster Management legislations, policies and mechanisms largely failed in making proper response in saving the lives, thus aggravating the disaster.

Why is Kanniyakumari more vulnerable?

- **Fishing** - Kanniyakumari district in Tamil Nadu has one of the highest densities of fisherfolk in India.
- Given the limited quantity of fish in nearshore waters, many fisherfolk have diversified into deep-sea and long-distance fishing.
- Their fishing voyages sometimes last from ten days to more than a month.
- Thus, the Indian Meteorological Department's timing of cyclone warning just 12 hours before it hit the coast was futile.
- Moreover, there are limitations for deep sea fishers in using satellite phones and other devices to facilitate boat-to-shore communications for security reasons.
- **Geography** - How early the forecast is depends on how far the coast is from the place where the cyclone is emerging.
- Many of the big cyclones like Phailin, Hudhud and Vardah developed near the Andaman Sea from where it took about five to six days to hit the coast.
- But Ockhi originated near the south-western coast of Sri Lanka, and travelled very near the southern-most tip of the Indian mainland.
- The origin of the cyclone much closer to the Kanniyakumari coast rendered the lead time for the forecast much less.
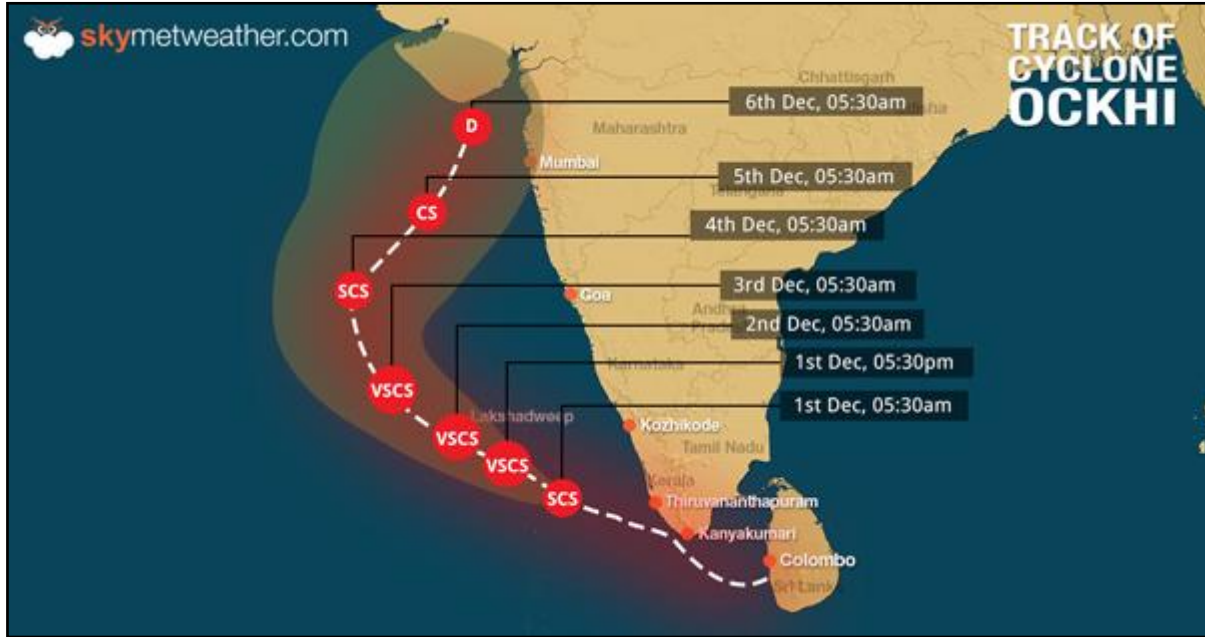
What lies ahead?

- Compensation to the victims requires the combined efforts of the Central and State governments.
- Climate change is resulting in changing weather patterns and coastal areas will need to adapt to hitherto unknown conditions, especially frequent storms.
- Disaster warning mechanism thus needs a revamp and quick-response systems should be put in place.
- The state government should certainly improve its communication systems.
- The Met department needs to become more people-friendly and learn to issue jargon-free advisories.
- Further, forming a separate Fisheries Ministry to address the issues associated with the fishermen community could prove to be a better administrative response.

13. Science & Technology

13.1 Scientific Research in India – The Challenges

What is the issue?

Systemic issues that hinder research needs to be addressed.

What are the administrative challenges?

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

What are the challenges regarding funds?

- Currently, it has been observed that, small elite research institutions get most of the grants, while universities get very less research funds.

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

What could be the way forward?

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

13.2 Sky Gazing for Aliens

Why in news?

- US government recently declassified information about "Advanced Aerospace Threat Identification Program" (AATI).
- This has revived long subdued interests in Unidentified Flying Objects (UFO) and Alien life-forms.

What is AATI program?

- Humanity has always been fascinated by the possibility of extraterrestrial life through unverified word-of-mouth spotting of aliens.
- Most governments have largely been diligent in suppressing all evidences that could possibly fuel such speculative thoughts.
- But the recent declassification of information about the AATI program and videos related to it has given good impetus for rejuvenated interest in aliens.
- AATI was an investigative program into UFOs, that was operational between 2007 and 2012, which had documented various suspected alien movement.
- Notably, a retired military officer who headed AATI has also come on record, stressing the need to continue investigating UFOs.

How has conspiracy theories fared?

- Unsubstantiated conspiracy theorists are currently apleantly and overwhelmingly support the existence of aliens and their visit to the Earth.
- UFOs got significant attention for the 1st time during the 2nd world war, when many military pilots reported sighting of saucer shaped objects.
- Subsequently, the number of such claims increased and came from all sorts of people – even alien abduction theories were flouted.
- Notably, "Area 51" - a remote part of the Nevada desert in the US, that houses an Air Force base, is a darling for conspiracy mongers due to its secretiveness.
- Most conspiracy theorists believe that the Air Base is actually a cover-up for a facility to research into aliens that have either – died on Earth, been captured alive, or have come as ambassadors.

What were some government initiated programs?

- During the Cold War era, air forces worldwide were on an eternally alert mode for the fare of possible missile attacks.
- The alertness provided for ample sighting of flying objects, most of which were eventually identified but some does remain as yet unidentified.
- While the western governents were more worried about Russians than about alien life, they nevertheless initiatited investigations on UFOs
- Notable, US Air Force initiated "Project Blue Book" which began UFO investigations in 1947 and reviewed over 12,000 sightings till 1969.
- While most sightings were concluded as stars, oddly-shaped clouds other terrestrial objects, about 701 of them remain unexplained.

- Similarly, Britain convened the "Flying Saucer Working Party", which also investigated UFOs and arrived at conclusions akin to the US project.

What are some significant scientific works in this field?

- The famous astronomer Frank Drake through his "Drake Equation" guesses that there could be considerable number of alien civilisations.
- In 1961, he listed the variables for determining the number of alien civilisations capable of using radio signals in the Milky Way Galaxy.
- Drake estimated the:
    - rate of formation of suitable stars
    - number of such stars with planets in orbit
    - possible number of inhabitable planets
- He postulated that life might exist or emerge in future in a small fraction of such inhabitable planets.
- Further, he stressed that the possibility of emergence of intelligent civilisations capable of radio communication was an even smaller fraction of those plantes.
- While his was essentially a guess work by extrapolation of data, advancements in telescopes has helped considerably to improvise space research.
- Notably, a large number of exo-planets perceivably condusive for life has been spotted to be orbiting stars but we're still guessing about the other variables.

What are the speculations?

- Considering the vastness of the cosmos, alien life is indeed very much possible and it might even be humanoid and carbon-based.
- As thousands of exo-planets have already been identified by Kepler Space Observatory, Earth-like conditions may exist in some of these.
- Notably, comets have been found to possess amino acids, that are key for the evolution carbon based life forms.
- However, people like Nobel winning physist Enrico Fermi has been critical of such hypothesis, as there is no conclusive proof of their existence.
- While there is a possibility that aliens don't exist, there is also a possibility that they've not developed intelligence or that they're consciously lying low.
- Also, considering the interstellar distances, if a civilisation 1000 light years away had discovered radio waves at the time we did, then their first signal would reach us around 3000 AD.

14. Internal security

14.1 Shifting the Focus on Indian Navy

Why in news?

The Indian Navy celebrates Navy Day on December 4 to commemorate its successful sea-borne attack off Karachi harbour during the 1971 India-Pakistan war.

What is the importance of Indian Navy?

- According to warship replacement programme, Indian Navy (IN) has to maintain a force level of at least 120 ships with an average life of 20 years.
- It has to induct at least six warships annually.
- Over the years the IN has developed skill-sets to build warships for tropical conditions characterised by high temperatures, humidity and salinity that creates a corrosive climate.
- Therefore, IN warships are export-worthy marine platforms to other Indian Ocean littoral countries.
- The IN is also an instrument of maritime diplomacy.
- It involves goodwill visits by warships to foreign ports, naval exercises, humanitarian assistance and disaster relief, besides persuasive deployment.

What is the problem?

- Over the years the army and air force has been accorded priority to counter landward threats.
- This has constrained IN only to warship replacement programmes.

- But there is a strategic shift towards China with the recent stand-off at Doklam and the presence of Chinese warships in the Indian Ocean.
- The Indian and Chinese navies come into contact with each other either in the waters of the Indian Ocean or the South China Sea.
- In June 2016 a Chinese spy ship tailed two Indian Navy warships in Japanese territorial waters east of Okinawa.
- Similarly in 2012, another Indian warship, the INS Airawat, was challenged by Chinese navy boats while sailing along the coast of Vietnam.
- So, the naval firepower is critical for India to consolidate its strategic interests in the IOR & SCS.
- Hence proper focussed should be given on it.

14.2 Indian Navy's Submarine Arm

Why in news?

The submarine arm of the Indian Navy is celebrating its golden jubilee this year.

How has the submarine arm progressed?

- The submarine arm of the Indian Navy has made notable accomplishments since its inception.
- This is possibly due to the professionalism of the human resource that lies at its core.
- India acquired its <u>first submarine, the INS Kalvari</u>, on December 8, 1967.
- In the intervening decades, the Navy has progressed to designing and indigenously building SSBNs (Ship Submersible Ballistic Nuclear), the INS Arihant.
- The Navy has also invested in building conventional boats in India through partnership programmes with foreign suppliers.
- Notably, India is the first country in the world to move straight to SSBNs, without moving up the scale from conventional boats.
- The combination of warship building, submarine building and finally the nuclear submarine building has supported a whole range of SME/MSME segments of industry in India.
- Further the plans for acquisition in place and operationalising them would give India a very credible underwater capability.

What are the shortfalls?

- **DSRV** - Submarine arm is one of the most hazardous and high-risk military specialisation.
- To prepare for any exigency, every submarine-operating navy also invests in a deep submergence rescue vessel (DSRV).
- Or it supposedly has access to DRSV with navies that have such a capability.
- Sadly, the Indian Navy does not have a dedicated DSRV even as it enters its 51st year.
- This void is expected to be filled only later in 2018.
- **Administrative** - The long-delayed DSRV acquisition symbolises the systemic incompetence of the Indian military machine.
- The inability of the Indian higher defence management ecosystem has deprived the Navy's submarine arm of a critical rescue capability.
- The complacency in decision-making and ineffectiveness in policy formulation have adversely affected the Indian military profile.
- **Corruption** - It was attempted to build two of the most advanced design of the German HDW submarines under the 'buy and make' concept.
- However, it had to be prematurely abandoned due to the infamous HDW scandal and allegations of financial impropriety in the deal.
- Resultantly, the indigenous submarine programme was set back by three decades.
- It has taken decades for the procurement procedures to be revised to address issues related to blacklisting and the role of agents.
- **Manpower constraints** - Constraints related to recruitment significantly impacts the modernisation and acquisition process.
- Decommissioning old platforms to compensate for the immediate requirement of new induction has its own challenges.
- A new platform demands trained manpower for operational needs.
- Very importantly, it requires a host of administrative, logistics and repair support facilities that are manpower-critical.

What is the way forward?

- The navy has to strategically overcome the challenge of balancing the short and long term implications on manpower.
- The core national security interests should be insulated from the vagaries of political/electoral compulsions.
- Beyond the ceremonial symbolism, the Indian Navy should be given due focus for its substantive policy-related issues.

14.3 Future of Autonomous Weapons

What is the issue?

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

What are autonomous weapons?

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

Why is there a call for its ban?

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

Why is the call for a ban not fully justified?

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

- **Inequality** - A pre-emptive ban is only likely to compound inequity in military capability, with the bigger powers employing these weapons anyway.
- Every member of the UN Security Council refused to consider a ban on autonomous weapons in the GGE.
- This is a powerful indication of how unsuccessful a ban is likely to be.

What lies ahead?

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

PRELIM BITS

ART AND CULTURE

World Heritage Tag

- The Telangana government is planning to send a proposal to UNESCO to get "World Heritage Site" tag for Hyderabad.
- Monuments which will be included in the file are Charminar, Golconda and Qutb Shahi Tombs.
- Charminar was built by Muhammed Quli Qutb Shah, the 5th Sultan, Qutub Shahi Dynasty in 1591.
- Golconda fort was first built by kakatiya dynasty and later ceded to Bahmani sultanate in 1364.
- Qutb Shahi dynasty of Bahmani sultanate expanded the fort which was finally came under Mughal ruler Aurangazeb.
- Qutb Shahi tombs are located in Ibrahim Bagh close to Golconda fort.

Kangri

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

Guru Gobind Singh

- 350th Prakash Parv (birthday anniversary) of Guru Gobind Singh was celebrated recently.
- He is the tenth Sikh Guru who formally installed as the leader of the Sikhs at age nine.
- He was the son of ninth Sikh guru Tegh Bahadur.
- He founded the Sikh warrior community called Khalsa in 1699, and introduced the Five Ks, the five articles of faith that Khalsa Sikhs wear at all times.
- He enshrined the scripture the Guru Granth Sahib as Sikhism's eternal Guru,which made him the last guru of Sikhs.

GEOGRAPHY

Chabahar Port

- The first phase of the chabahar port project known as the "Shahid Beheshti port" was inaugurated recently.

- It opens up a new strategic transit route between Iran, India and Afghanistan, bypassing Pakistan under the 2016 Indo-Afghan-Iran trilateral pact.

- The port lies outside the Persian Gulf and is easily accessed from India's western coast.

- India is also constructing a railway line between Chabahar and Zahedan to connect the port to rest of the Iranian railway network.

- It is further to be linked with Delaram-Zaranj road, built by India in Afghanistan that connects at Afghan-Iran border via rail through Zahedan.

- The port, through Zahedan railway network, could also be linked with the International North South Transport Corridor connecting India with Russia.

- Over a month ago, India sent its first consignment of wheat to Afghanistan by sea through the Chabahar port, marking opening of the new strategic transit route.
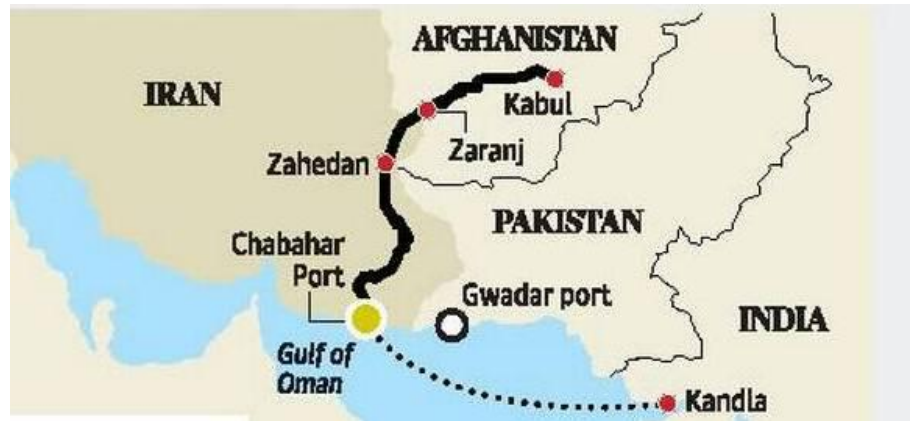
New Island

- The world's newest island "Hunga Tonga Hunga Ha'apai" was formed during a volcanic eruption in the remote Pacific three years ago.

- The island rose from the seabed about 65 km northwest of the Tonga capital Nuku'alofa.

- Scientists expected that the island will last anywhere from six to 30 years due to its resilience.

- It is mainly because warm sea water combined with ash during the volcanic explosion to create a concrete-like substance known as "tuff" (a light porous rock).

- Scientists believe that studying the life cycle of this new island will give insights in to Mars environment, since it is having many similar volcanic islands.

Frequent cyclones in Arabian Sea

- A recent study by researchers has found that extremely severe cyclones are becoming more frequent in the Arabian Sea.

- Researchers pointed global warming as a reason for increasing frequency of cyclones.

- Normally, Arabian Sea sees one extremely severe cyclone in every 4 years. Cyclones in Arabian Sea –

    1. 1998 – 2013 - Only 5 extremely severe cyclones

    2. 2014 - Cyclone Nilofar hitting Gujarat.

    3. 2015 – Two cyclones Chapala and Megh hitting the Yemeni island of Socotra.

    4. 2017 – Cyclone Ockhi over Comorin area in South Kerala Coast.

- There are two factors contributed to the increased severity of Arabian Sea cyclones, particularly post-monsoon.

- First, Arabian Sea surface becomes warmer than the other ocean basins during this period.

- Second, due to the interplay of global warming, climate variability and weather changes, winter monsoon circulation has been weakening over the years.

Stages of Cyclone Warning

- The cyclone warnings are issued to state government officials in four stages.
- The first stage warning known as "**Pre Cyclone Watch**" contains early warning about the development of a cyclonic disturbance.
- The second stage warning known as "**Cyclone Alert**" contains information on the location and intensity of the storm and coastal districts likely to experience adverse weather, advice to fishermen, general public, media and disaster managers.
- The third stage warning known as "**Cyclone Warning**" forecasts likely point and time of landfall.
- The fourth stage of warning known as "**Post Landfall Outlook**" forecasts expected time of landfall.

| Stage of Warning	Time	Colour Code
Cyclone Alert	Issued at least 48 hrs in advance.	Yellow
Cyclone Warning	issued at least 24 hours in advance.	Orange
Post landfall out look	Issued at least 12 hours in advance	Red.

Preserving India's Heritage City

- Ahmedabad has been declared India's first World Heritage City by the World Heritage Committee of UNESCO.
- But it is facing difficulties in defending its tag of world heritage city due to pollution.
- Ahmedabad's conservation committee has 3 years to document close to 3,000 buildings of heritage value to strict UNESCO standards.
- The committee has also the responsibility to show that the decline and destruction in the city is slowing over the years.
- If the deadline is missed, UNESCO may revoke or downgrade Ahmedabad's listing to "heritage in danger".
- UNESCO experts have been warning that the city lacked a convincing plan for protecting its ancient citadels, mosques and tombs.

Gwalior Light Railway

- The Gwalior Light Railway runs between Gwalior and Sheopur Kalan in Madhya Pradesh, covering 198 km in 12 hours.
- It is the oldest long-haul service to run on 2-ft narrow-gauge tracks in the world.
- It is laid during the rule of the Scindias (1895 – 1909).
- Scindia is a Hindu Maratha dynasty that ruled the Gwalior State.
- Scindia's originally served as cavalrymen under the Bahmani Sultanate.
- Later they become a part of the Maratha Confederacy in the 18th and 19th centuries and a princely state of the colonial British government during the 19th and the 20th centuries.

Sharavathi Project

- Sharavathi Project is a pumped storage scheme planned by Karnataka Power Corporation.
- It involves constructing an upstream reservoir across one of the tributary of Sharavathi River.
- There will be one underground power station which will utilise the water from the upstream and downstream reservoir for power generation with a capacity of 2000 MW of electricity.
- The underground pipeline connects two reservoirs such as Talakalale and Gerusoppa reservoir. And a power plant is situated underneath a reserve forest.
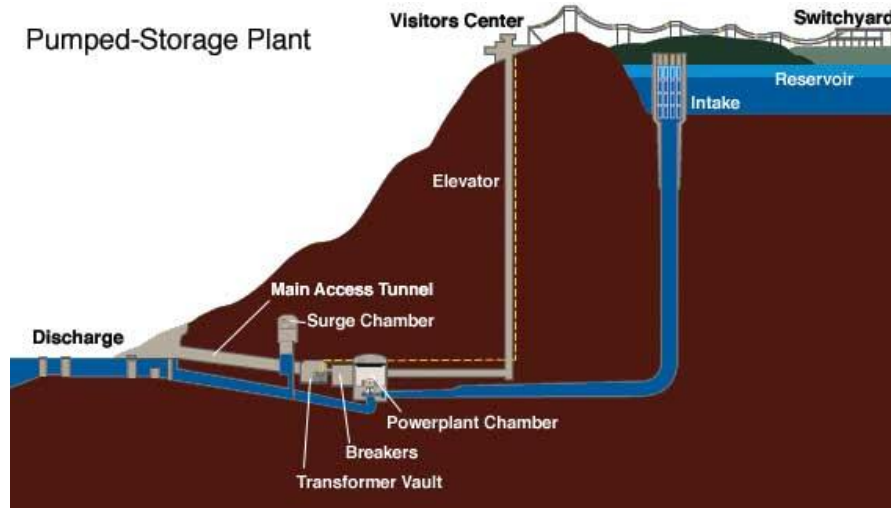
- The forest comes between the sharavathi wildlife sanctuary near Jog forest reserve and Aghanashini Lion Tailed Macaque conservation reserve.
- It got pre-construction clearance from the Ministry of Environment and Forests.

Pumped Storage Scheme

- Pumped storage hydro plants store and generate energy by moving water between two reservoirs at different elevations.
- During times of low electricity demand, such as at night or on weekends, excess energy is used to pump water to an upper reservoir.
- The turbine acts as a pump, moving water back uphill.
- During periods of high electricity demand, the stored water is released through turbines.
- A pumped-storage plant works much like a conventional hydroelectric station, except the same water can be used over and over again.

Floating Solar Power Plant

- India's largest floating solar power plant project at the Banasura Sagar Dam in Wayanad district is completed and going to be commissioned soon.
- It has the generating capacity of 500 Kilo watt and it will be fed to the Kerala State Electricity Board grid using underground cables.
- It can be more efficient than their ground-mount counterparts due to the water body's cooling effect on the modules.
- They collect less dust which cuts down on maintenance and they also preserve water levels through shading.
- Earlier in the year NETRA (NTPC Energy Technology Research Alliance), installed a 100kW floating solar plant at Kayamkulam, which is also in Kerala.

Forest Fires

- Forest Fires has been reported in Somanakadu valley, Charmadi range of Western Ghats.
- The range is located in Karnataka region of Western Ghats.
- It acts as a water source for **Netravathi River** which has many rivulets from this range as tributaries.

- Environmentalists have alleged that the forest fire is caused by estate owners to occupy the land after the region has completely been denuded.

Ichamati River

Nadia Rivers

- It is a transboundary river in West Bengal which flows through India and Bangladesh.

- It forms the international border between India and Bangladesh for 21 kilometres.

- The Mathabhanga River originates in Bangladesh and it bifurcates near Nadia in West Bengal in to Ichamati and Churni.

- Ichhamati River and its branches form a large oxbow lake complex near Bangaon in North 24-Paraganas district.

- The river is facing the problem of siltation leading to thin flow of water in the dry season and floods in the rainy season.
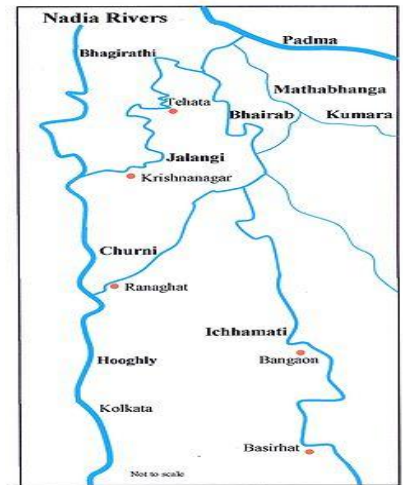
Ro – Ro services in India

- In RO-RO service, vessels have either built-in or shore-based ramps that allow the cargo to be efficiently rolled on and off the vessel when in port.

- This is in opposite to the lift-on and lift-off (lo-lo) vessels, which use a crane to load and unload cargo.

- This service is currently in operational in two states – Gujarat and Assam.

- Inland Waterways Authority of India (IWAI) rolled out a regular RO-RO between Assam-Meghalaya connecting Dhubri and Hatsingimari.

- Dhubri and Hatsingimari are located in the north bank and south bank of River Brahmaputra respectively.

- Recently, India's first RO-RO passenger (RO Pax) service was inaugurated between Ghogha in Saurashtra and Dahej in south Gujarat in the Gulf of Khambhat region.

Tuirial Hydro power

- Tuirial Hydro Electric Project (60 MW) in Mizoram, being implemented by North Eastern Electric Power Corporation.

- The project is built at a cost of Rs 1302 crore, was started in 1998, which is the biggest power project located in Mizoram.

- It is earth fill and gravity dam over Tuirial which is the first ever Central project to be successfully commissioned in Mizoram.

- Ministry of Power has been partly funded the project under NLCPR-Central Scheme.

NLCPR

- Non-Lapsable Central Pool of Resources (NLCPR) for the North East region is provided by the Ministry of Development of north east region (DoNER).

- The accumulations in NLCPR are utilized by the Ministry of DoNER under the two Schemes of NLCPR (State) and NLCPR-Central for which annual budgetary allocations are provided in the normal budgetary process.

- Under the NLCPR (State) Scheme, priority projects of North Eastern States are being funded and under NLCPR-Central Scheme, funds are provided to Central Ministries for implementing projects of national and regional importance.

Pare Hydroelectric Plant

- The Pare hydro electric project is a run-of-the-river scheme on the Dikrong River in Arunachal Pradesh.
- Dikrong River is one of the tributaries of Brahmaputra originates from Dafla hills and it passes through Itanagar.
- The project is being implemented by North Eastern Electric Power Corporation (NEEPCO).
- Earlier in 2008, Germany had signed a loan agreement with NEEPCO for providing Euro 80 million under **Indo-German Bilateral Development Cooperation.**
- A loan agreement was recently signed for providing additional funding of Euro 20 million for this project.

Rewa Mega Multi Power Project

- Rewa Mega Multi Power project with the capacity of 750 MW is located in Madhya Pradesh.
- Power Purchase Agreement (PPA) is signed between Delhi Metro Railways Corporation (DMRC) & Madhya Pradesh Power Management Company (MPPMC).
- Thus it becomes the first power project to conduct interstate sale of solar power to Delhi Metro.
- It will supply 24 per cent of its power to Delhi Metro during the power project lifetime.
- International Finance Corporation (IFC) is the transaction adviser in the project and the World Bank is funding the internal infrastructure of the project.

Ranganadi Hydroelectric Dam

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

Siang River

- The Siang River flows for about 1,600 kilometres as Tsangpo River through the Tibet plateau, before entering India in Arunachal Pradesh.
- The river becomes Brahmaputra after it flows into Assam near Sadiya.
- In recent days, Siang which flows through Arunachal Pradesh has unusually turned muddy and darkened.
- This has firmed up the suspicion that China may have begun construction of the world's longest tunnel upstream.
- The 1000 km long tunnel will divert water from the Brahmaputra River in Tibet close to Arunachal Pradesh to the parched Xinjiang region.
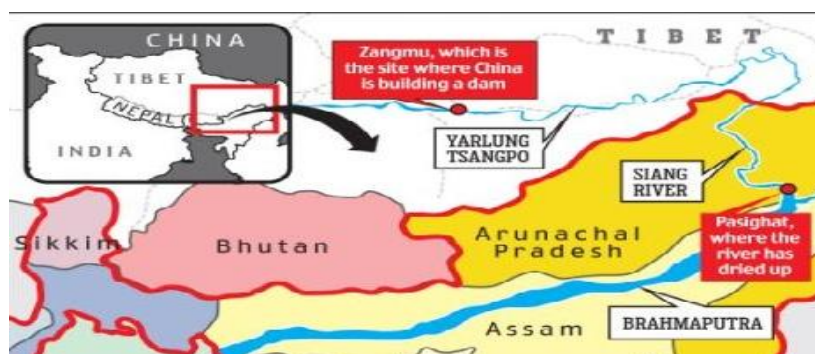
Panchteerth

- Union government has decided to develop five places "Panchteerth" in honor of Babasaheb Dr. B.R.Ambedkar.
- It includes,
    1. His birthplace (Janma Bhoomi) in Mhow, Madhya Pradesh
    2. Dr.Ambedkar Memorial in London where he stayed while studying in U.K
    3. 'Deeksha Bhoomi' in Nagpur, where he took education
    4. 'Mahaparinirvan Sthal' in Delhi
    5. 'Chaitya Bhoomi' in Mumbai.

Agariyas

- Agariyas are nomadic tribes and traditionally salt farmers in Rann of Kutch, a seasonal salt marsh in Thar Desert, Rajasthan.
- The tribes derive their names from the word "Agar" meaning salt farms.
- During the monsoon months, the Rann of Kutch is submerged in sea water.
- As the sea water finally begins to recede in October, the Agariyas move in and begin the elaborate process of salt farming.
- This salt is different from the marine salt produced on the coast and is locally known as Badagara, literally meaning Bada (big) and Agara (pan).
- They suffer from skin lesions, severe eye problems, tuberculosis and abnormally thin legs, stiff with years of exposure to high concentration of salt.
- After the salt production season, they move to the peripheral villages.
- High Temperature, high wind velocity and high soil salinity makes Rann of Kutch an ideal place for salt production.

POLITY

Nyaya Gram

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

Clean Authority of Telangana

- Telangana government is set to introduce "Clean Authority of Telangana" to deal with solid waste, waste water and polluted air in all the urban areas across the State.
- It is an exclusive authority modeled on the lines of a similar body in Japan.
- It will ensure enforcement of measures aimed at containing the harm caused through solid waste, waste water and polluted air to human health.

The Indian Institute of Petroleum and Energy Bill, 2017

- Parliament has recently passed "The Indian Institute of Petroleum and Energy Bill, 2017".
- The Bill establishes the Indian Institute of Petroleum and Energy, Vishakhapatnam, Andhra Pradesh.
- The Institute aims to provide high quality education and research focussing on the themes of petroleum, hydrocarbons and energy.
- The Institute is required to maintain a fund which will be credited with the funds that it receives from the central government, fees and money received from any other sources (grants and gifts).
- The accounts of the Institute shall be audited by the Comptroller and Auditor- General of India.

- The bill declares the Institute as an Institution of National Importance (INI).

GOVERNMENT INITIATIVES

Laqshya Initiative

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

DARPAN

- Ministry of Communication launched "DARPAN - Digital Advancement of Rural Post Office for A New India".
- The project aimed at realizing financial inclusion of un-banked rural population.
- It is IT modernization project which intends to provide a low power technology solution to each branch postmaster to improve service delivery.
- DARPAN offers core banking services such as cash deposit and withdrawal in savings bank and recurring deposit, mini statement, Aadhaar seeding and daily transaction report.
- The application will also be used for the reimbursement of social security benefits such as MNREGS, old age pension and DBT.
- It is targeted to complete the project by March 2018.

First NIC-CERT

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

World Conference on Vedas

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

Initiatives by Ministry of Railways

- SRESTHA - New R&D organisation to serve the future technology needs of Railways.
- SUTRA – A special unit for Transportation Research and Analytics.
- The team will be involved in World class data analytics, simulation softwares, network optimisation and decision support systems.

- NIVARAN – A grievance redressal portal and first IT application in Rail Cloud for resolving service related grievances of serving and former railway employees.

- "Sampark, samanvay and Samvad" is a conclave organized by the **Ministry of Railways** to discuss and deliberate "Vision for New Railway – New India 2022".

- The conclave is aimed at breaking the boundary put up by railway organization in sharing information (sampark), improves co-ordination (samanvay), find solutions (samvad) to the critical issues facing Indian Railways.

- It encouraged all officers to give inputs and bring out the ground realities and potential impediments to implementation of new policies and reforms.

National Programme on use of Space Technology for Agriculture (NPSTA)

- NPSTA is a proposed programme which envisages integrated use of Space and Geospatial Tools for Mapping, Monitoring and Management of Agriculture.

- The current running programmes will be subsumed under this. They are

    i.   Project FASAL (for crop forecasting),

    ii.   Project NADAMS (for drought assessment),

    iii. Project CHAMAN (for horticultural assessment and development),

    iv.   Project KISAN (for crop insurance) and Crop Intensification planning.

- The programme will have four sub-programmes such as Crop Assessment & Monitoring, Agricultural Resources Management, Disaster Monitoring and Mitigation, Satellite Communication and Navigation Applications.

National Rail and Transport University (NRTU)

- The Cabinet recently approved the setting up of India's first National Rail and Transport University (NRTU) in Vadodara in Gujarat.

- The university plans to use latest pedagogy and technology applications such as satellite based tracking, Radio Frequency Identification and Artificial Intelligence to improve on-the-job performance and productivity.

- A not-for-profit company would be created under Section 8 of the Companies Act, 2013.

- The company will be created by the ministry of railways and it would be the managing company of the proposed university.

- The company will provide financial and infrastructural support to the university.

Mission Antyodaya

- Under the mission, **Department of Rural Development** in partnership with State Governments has involved in ranking 50,000 Gram Panchayats.

- The ranking is based on parameters of physical infrastructure, human development and economic activities.

- It facilitates identification of gaps in a quest for poverty free gram panchayats and drive economic activities.

- Public institutions like Krishi Vigyan Kendras, MSME Clusters will be involved for enhancing productive employment and economic activities.

IT Campus for Persons with Disabilities

- The Telangana government has announced that it will set up the world's first IT campus for Persons with Disabilities.

- It entered in to agreement with Vindhya E-Infomedia Private Limited which will provide employment opportunities to PWD.

Ganga Gram

- Ganga Gram is a project for sanitation based integrated development of all 4470 villages along the River Ganga.

- Ministry of Drinking Water and Sanitation is the nodal agency for implementation of the Ganga Gram Project.

e-HRMS

- Ministry of Personnel, Public Grievances & Pensions recently launched electronic-Human Resource Management System (e-HRMS).
- e-HRMS is an online platform for central government employees to apply for leave and access their service-related information.
- It will also help the employees to apply for different kind of claims/reimbursements, loan/advances etc on a single platform.
- The e-service book which is already in service for DoPT employees for accessing the service-related details of an employee will also be integrated in to the e-HRMS.

Design University

- India's first and only design university "World University of Design" was recently opened at Sonipat, Haryana.
- It is situated on NH1 in Rajiv Gandhi Education City (NCR) in Sonipat, the largest planned integrated city for education in India.
- The university has international collaborations with foreign universities like University of West Scotland, the Vancouver Film School, and the Italian University of Design.

Champion State

- Union Government has recently recognized Odisha as a 'Champion State' for recording the highest growth in exports during 2016-17.
- Odisha's export volume has been increased from Rs 19, 082 crores in 2015-16 to Rs 40,872 crores in 2016-17.
- The growth of exports has a direct positive impact on the enhancement of employment and livelihood opportunity.

India's first social audit law

- Meghalaya has launched 'The Meghalaya Community Participation and Public Services Social Audit Act, 2017'.
- By this the state becomes India's first state to operationalize a law that makes social audit of government programmes and schemes a part of government practice.
- The legislation is applicable to 11 departments and 26 schemes in the north eastern state.
- A social audit facilitator will be appointed to conduct the audit directly with the people.
- So far, social audits of government programmes have been done at the initiative of civil society organisations.
- By this new law social audits will have an official sanction and becomes the mandate of the government.

Global conference on functional materials

- Global conference on functional materials was held in Telengana, which was attended by delegates from 10 different countries.
- The conference was aimed to address the application aspect of the functional materials in areas of societal relevance.
- The term functional materials cover different material classes ranging from semiconductors over polymers and molecular crystals to nanoparticles.
- It is their special electrical, optical and magnetic properties which make functional materials so important.
- Technologies such has Computation, Communication, Sensors, storage and displaying of information uses the functional materials.

International Tourism Mart

- It is being organized by the Union Ministry of Tourism in association with North Eastern States.
- This year, the 6th International Tourism Mart is organized at Guwahati, Assam.
- It is organised in the North Eastern States on rotation basis.
- The earlier editions of this mart have been held in Guwahati, Tawang, Shillong, Gangtok and Imphal.

- It is organized with the objective of highlighting the tourism potential of the region in the domestic and international markets.
- It will put the spotlight on India's "Act East Policy", blossoming ties with ASEAN and the larger East Asia region.

Institute of Eminence

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

Sakhi

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

GOVERNMENT SCHEMES

India BPO Promotion Scheme (IBPS)

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

North East Special Infrastructure Development Scheme (NESIDS)

- The Union Cabinet has recently approved new scheme NESIDS to fill up the gaps in creation of infrastructure in specified sectors till March, 2020.
- It is a central sector scheme which will be funded 100% by the Central Government.
- It covers,
    i. Physical infrastructure relating to water supply, power, connectivity and specially the projects promoting tourism
    ii. Infrastructure of social sectors of education and health.

- Thus it will not only strengthen health care and education facilities in the region but will also encourage tourism and employment opportunities for local youth.

Pradhan Mantri MUDRA Yojana

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

SANKALP and STRIVE Project

- Skills Acquisition and Knowledge Awareness for Livelihood Promotion (SANKALP) is a centrally sponsored scheme aimed at providing market relevant training to youths across the country.
- Skill Strengthening for Industrial Value Enhancement (STRIVE) is a central sector scheme aimed at improving the quality and the market relevance of vocational training provided in ITIs.
- Both projects are under the Ministry of Skill Development and Entrepreneurship and supported by World Bank loan assistance.
- It helps in setting up Vocational Education and Training (VET).
- VET is a national body for vocational education which shall regulate accreditation and certification to bring uniformity in vocational training.
- India has recently signed the loan agreement with World Bank for SANKALP project, which ends in 2023.
- A financing agreement for the credit of USD 125 million for STRIVE project was recently signed by the Government of India with the World Bank.

SRISTI

- SRISTI - Sustainable Rooftop Implementation for Solar Transfiguration of India is a proposed scheme by the Ministry of New and Renewable Energy.
- The proposed scheme will incentivise the installation of roof top solar projects in India.
- It aims to achieve a national solar rooftop target of 40 GW by 2021-22.
- Under SRISTI, a central financial assistance will be provided only for installation of roof top solar plants in residential sectors.
- Once approved, the concept will acts as a basis for phase – II of solar rooftop power programme.

Soil Health Card Scheme

- Soil Health Card scheme was launched in 2015 in Rajasthan.
- The card informs farmers about nutrients status of the soils along with the recommendation on appropriate dosage of nutrients to improve soil health and fertility.

- The card will be issued once in every 2 years to a farm so that nutrients deficiency can be regularly detected and improved.

- The aim is to provide Soil Health Card to all 120 million farm holdings by Dec, 2017.

- In the first phase of the scheme (2015-17), 100 million SHC have been distributed.

- The second phase began on May 1, 2017, and will continue for the year 2017 to 2019.

- This scheme is being implemented in collaboration with State Governments.

- Every year World Soil Day is celebrated on 5th December.

SAKALA Scheme

- The scheme is being implemented in the **State of Karnataka** to curb corruption in public service delivery in key departments.

- More than 725 services are being provided under this mission.

- Now, the state government has proposed to launch the version 2 of SAKALA scheme with the existing SAKALA-1 fails to curb corruption.

- SAKALA -2 will address shortcomings in the existing Act by including a provision for imposing penalty of Rs. 250 per day for delay in addressing complaints.

- The proposed Bill includes mandatory display of citizens' charters and job charts in all government departments, social audits, public hearings and district & state level grievance redress processes.

INTERNATIONAL ISSUES AND EVENTS

Intangible Cultural Heritage of Humanity

- The convention for the safeguarding of the Intangible Heritage was adopted by UNESCO in the year 2003.

- It acknowledges cultural heritage also encompasses tradition and living expression in addition to tangible places, monuments and objects.

- The 12th session of Intergovernmental committee for the safeguarding of the Intangible Heritage is being held at South Korea.

- In this session, the committee has added "Kumbh Mela" as an intangible heritage.

- Kumbh Mela is the largest congregation of pilgrims in the planet, held once in every 12 years in 4 places - Haridwar, Allahabad, Ujjain and Nashik.

1.1 Other Intangible cultural Heritage from India

- Ramlila- the traditional performance of the Ramayana

- Kutiyattam, Sanskrit theatre

- Tradition of Vedic Chanting

- Ramman, religious festival and ritual theatre of the Garhwal Himalayas.

- Chhau dance

- Kalbelia folk dance and songs of Rajasthan

- Mudiyettu,ritual theatre and dance drama of kerala.

- The Buddhist chanting of Ladakh

- Sankirtana –the ritual singing, drumming, and dancing of Manipur

- The traditional brass and copper craft of utensil making among the Thatheras of Jandiala Guru, Punjab.

- Yoga and Norouz

- It represents a syncretic set of rituals related to worship and ritual cleansing in holy rivers in India.

- It is the third inscription to the list in the two years following the addition of "Yoga" and "Norouz" last year.

Coastal Shipping Agreement

- Member Countries of BIMSTEC recently discussed the draft text of Coastal Shipping Agreement drafted by the Ministry of Shipping, Government of India.

- It would apply to coastal shipping (i.e) shipping within 20 nautical miles of the coastline.

- The objective is to facilitate coastal shipping by promoting lot of cargo movement between the member countries through the cost effective, environment friendly and faster coastal shipping routing.

- It is expected to give a boost to trade between the member countries.

- Coastal ship movements require smaller vessels and lesser draft, and therefore, involve lower costs.

- BIMSTEC grouping - Bangladesh, Bhutan, India, Myanmar, Nepal, Sri Lanka and Thailand

Bodhi Parva

- It is a BIMSTEC Festival of Buddhist Heritage held recently in New Delhi.
- It is celebrated as a part of 20th anniversary of BIMSTEC.
- It involves exhibition of international and Indian Buddhist art and architecture, discourses by eminent scholars of Buddhism, screening of film on Buddhism, dance and music performances etc.
- It will help in building an awareness of BIMSTEC's rich and common heritage.

International Solar Alliance

- The ISA is an Indian initiative, jointly launched by India and France in Paris, on the sidelines of COP-21, the UN Climate Conference.
- It has recently become a treaty-based international intergovernmental organization with the ratification by Guinea as the 15th country.
- It aims to channel $300 billion in 10 years to promote renewable energy projects under a global mega fund for clean energy.
- The framework agreement was opened for signatures in the 22nd session of the UN Climate Change Conference held at Marrakech, Morocco in 2016.
- So far, 46 countries have signed and 19 countries have ratified the Framework Agreement of ISA.
- The Headquarters is in India with its Interim Secretariat being set up in National Institute of Solar Energy, Gurgaon.
- Further, ISA has also been developing a Common Risk Mitigating Mechanism (CRMM) for de-risking and reducing the financial cost of solar projects in the ISA member countries.

International Maritime Organisation

- In its 30th session of IMO held in London, India has been re-elected to the council of IMO under "Category B".
- India is a party to 34 IMO Conventions and protocols.
- It is currently in the advanced stage of ratifying Ballast Water Convention and Bunker Convention.
- **Ballast water management convention** was adopted in IMO in 2004.
- It came into force in September, 2017.
- The convention aims to prevent the spread of harmful aquatic organisms from one region to another.
- It establishes standards and procedures for the management and control of ships' ballast water and sediments.
- All ships in international traffic are required to manage their ballast water and sediments to a certain standard according to the management plan.
- The **Bunker convention** was adopted in 2001 and came into force in 2008.
- Its aim is to ensure that adequate, prompt, and effective compensation is available to persons who suffer damage caused by spills of oil, when carried as fuel in ships' bunkers.
- It applies to damage caused on the territory, including the territorial sea, and in exclusive economic zones of States Parties.
- It is modeled on the International Convention on Civil Liability for Oil Pollution Damage, 1969.
- Upon ratification, it applies to an Indian vessel, wherever it is situated, and to a foreign flag vessel while it is within Indian jurisdiction.

Gulf Cooperation Council

- The Gulf Cooperation Council is a regional political and economic alliance of six Gulf States.
- Bahrain, Kuwait, Oman, Qatar, Saudi Arabia, and the United Arab Emirates are the member countries.
- It is headquartered in Riyadh, Saudi Arabia.
- Its aim is to achieve ever closer union between the energy rich Gulf countries.

- The UAE has recently announced that it has formed a new economic and partnership group with Saudi Arabia, separate from the GCC.
- This move could undermine the popularity of GCC.

Global Compact for Migration

- It is the first intergovernmental negotiated agreement under the auspices of UN to cover all dimensions of migration.
- The agreement was signed in the UNGA by adopting a non-binding political declaration "New York Declaration for Refugees and Migrants" in 2016.
- The declaration pledged to uphold the rights of refugees, help them resettle and ensure they have access to education.
- All the 193 member countries of UNGA became the part global pact for migration.
- It is framed consistent with target 10.7 of the 2030 Agenda for Sustainable Development.
- Under the agenda, member States committed to cooperate internationally to facilitate safe, orderly and regular migration.
- United States has recently withdrawn from this pact, saying that the declaration is inconsistent with its policies.

ASEAN – INDIA Connectivity Summit

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

Asian Infrastructure Investment Bank (AIIB)

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

Organisation of Islamic Cooperation (OIC)

- OIC is an international organization founded in 1969, consisting of 57 member states.
- Its administrative centre is located in Jeddah, Saudi Arabia.
- Turkey currently holds the chairmanship of the organization.
- India is not a member to this organisation.
- The organisation works to safeguard and protect the interests of the Muslim world in the spirit of promoting international peace and harmony.

- At the recently held summit in Turkey, it has declared "East Jerusalem" as the capital of Palestine, rejecting the US stance as "dangerous".

Kimberly Process

- The Kimberley Process (KP) is a joint Government, International Diamond Industry and Civil Society initiative to stem the flow of Conflict Diamonds.
- Conflict Diamonds- Rough diamonds used by rebel movements or their allies to finance conflict aimed at undermining legitimate governments.
- In its 2016 session held in Dubai, India was appointed as Vice Chair of KP for 2018 & Chair for 2019. The EU will be chair for 2018.
- This year, the session was held at Brisbane, Australia.
- It came into effect in 2003 with representation from 81 countries including EU.
- India is one of the founding members, which held chair for the year 2008.

ECONOMY

Ethereum

- Ethereum is similar to Bitcoin in the sense that they are both open-source platforms based on blockchain technology.
- These decentralised payment network with its own cryptographic currency, allows anonymous payments without the need for a bank or other third party.
- Ether is the digital currency of the ethereum blockchain and it is the second-largest cryptocurrency after bitcoin.
- But while Bitcoin is limited to using blockchain technology for Bitcoin payments, Ethereum can also be used to build decentralised computational platforms.
- Ethereum technology allows for third party applications, not just the currency, to run on the network.
- It allows a number of apps to be built and it is also being used by start-ups to raise money with initial coin offering.

Ripple and Petro

- Ripple is a technology that acts as both a cryptocurrency and a digital payment network for financial transactions.
- It was released in 2012 and its coin is labeled as XRP.
- Ripple operates on an open source and peer-to-peer decentralized platform that allows for a seamless transfer of money in any form, whether USD, Yen, litecoin, or bitcoin.
- It is the fourth-largest cryptocurrency in the world by market capital, which now stands at around $43 billion.
- **Petro** is a cryptocurrency launched by Venezuela backed by oil reserves.
- It is mainly to shore the collapsed oil economy.
- Venezuela's real currency "Bolivar" is in freefall, and the country is sorely lacking in basic needs like food and medicine.

World's largest free-trade Agreement

- The **European Union and Japan** concluded negotiations on a free-trade deal to create the world's largest open economic area.
- It will remove EU tariffs of 10 per cent tariffs on Japanese cars and the 3 per cent rate typically applied to car parts.

Merchant Discount Rate

- MDR is the fee a merchant pays to Bank for providing debit and credit card services.

- It compensates the bank issuing the card, the bank which puts up the swiping machine (Point-of-Sale or PoS terminal) and network providers such as Mastercard or Visa for their services.

- The charges are usually shared in a pre-agreed proportion between them.

- RBI specifies the maximum MDR charges that can be levied on every card transaction.

- As per RBI rules, the merchant must pay the MDR out of his earnings and cannot pass it on to the customer.

- As per the recent RBI notification, with effect from January 2018, small merchants will pay a maximum MDR of 0.40 per cent of the bill value and others will pay 0.90 per cent.

- RBI has also set a monetary cap at Rs. 200 per bill for small merchants and Rs. 1,000 for large ones.

- Small merchants are defined as those with a turnover of up to Rs.20 lakh in the previous year.

Wholesale Price Index (WPI)

- WPI represents the price of basket of goods at a wholesale stage i.e. goods that are sold in bulk and traded between organizations instead of consumers.

- WPI is calculated by the Office of Economic Advisor, DIPP under Ministry of Commerce and Industry.

- The base year for the index is 2011-12.

- The components of WPI include Primary articles, Manufacturing items, fuel and power with different weightages assigned to them.

- The weightages are Primary Articles (Weight 22.62%), Fuel & Power (Weight 13.15%), and Manufactured Products (Weight 64.23%).

- It basically indicates the rise in profitability of industries.

- The annual rate of inflation is calculated based on monthly WPI.

- WPI index for the month of November, 2017 rose to eight month high (3.93%).

BND-4201

- Bharatiya Nirdeshak Dravya (BND-4201) is India's first home-grown high purity gold reference standard recently launched.

- It will be the reference material for gold of '9999' fineness i.e gold that is 99.99% pure.

- It will be beneficial to the consumers and public at large to ensure purity of gold.

- Once the BND's of other purity gold are made available in the market, jewellers will move towards more instrumental methods.

- The conventional fire assay methods for testing are not only time consuming but also not environment friendly as poisonous gases are released.

- This will also be useful for Collection and Purity Testing Centres to certify the purity of gold deposits under the gold monetisation scheme.

Home Ministry's Directive to NGOs

- The Home Ministry has recently directed all NGOs, business entities and individuals who receive funds from abroad to open accounts in any of the 32 designated banks.

- The banks are integrated with Public Financial Management System (PFMS).

- The directive is issued under the powers conferred upon the central government under the Foreign Contribution (Regulation) Act 2010.

- It is expected to provide a higher level of transparency and hassle-free reporting compliance.

Public Financial Management System (PFMS)

- PFMS, earlier known as Central Plan Schemes Monitoring System (CPSMS), is a web-based online software application.

- It is launched with the objective of tracking funds released under all Plan schemes of GoI, and real time reporting of expenditure at all levels of Programme implementation.

- It is integrated with the Core banking system which helps to monitor the flow of funds.
- It has been envisaged that digitization of accounts shall be achieved through PFMS.
- It is developed and implemented by the Office of Controller General of Accounts.

ENVIRONMENT

India & CITES

- India has been awarded with the Certificate of Commendation from CITES for its regional and global effort to combat illegal wildlife trade.
- It was given to Wildlife Crime Control Bureau (WCCB).
- India is the only recipient of this Certificate of Commendation at the 69th Standing Committee meeting of CITES at Geneva.
- WCCB conducted and coordinated a species specific wildlife enforcement Operation, codenamed **Operation Save Kurma**.
- The operation aims to combat the proliferating illegal trade in live **turtles** and its parts from the country to destinations abroad.

National Green Tribunal

- Click here to know more about NGT.
- Current rules require that every Bench of the NGT consist of "two or more" members and made up of at least one judicial and one expert member.
- However, a recent notification from the Union Environment Ministry has relaxed this requirement.
- It has allowed the Chairperson of NGT to constitute single member benches.
- The notification was issued following the SC criticized the union government for not filling up vacancies in the NGT principal and zonal benches.

Blue Flag

CITES

- CITES (the Convention on International Trade in Endangered Species of Wild Fauna and Flora) is a multilateral treaty to protect endangered plants and animals.
- It is also known as the Washington Convention.
- Its aim is to ensure that international trade in specimens of wild animals and plants does not threaten the survival of the species in the wild.
- It accords varying degrees of protection to more than 35,000 species of animals and plants.
- Participation is voluntary, and countries that have agreed to be bound by the Convention are known as Parties.
- Presently, 183 countries across the world are signatory to the Convention.
- Although CITES is legally binding on the Parties, it does not take the place of national laws.
- Rather it provides a framework respected by each Party, which must adopt their own domestic legislation to implement CITES at the national level.

- The 'Blue Flag' is a certification by the Foundation for Environmental Education (FEE) that a beach, sustainable boating tourism operator, meets its stringent standards.
- Union Environment Ministry has launched a pilot project for beach clean-up and development and is also striving for the 'Blue Flag' certification for such identified beaches.
- Under the project, each state or UT has been asked to nominate a beach which will be funded through the ongoing Integrated Coastal Management Programme.
- FEE is a non-governmental organization promoting sustainable development through environmental education.

World's First Photovoltaic Highway

- World's first solar highway in Jinan, the capital city of China's Shandong province was recently opened for testing.
- The new solar road consists of an insulating layer on the bottom, photovoltaic panels in the middle, and transparent concrete on top.
- It can generate 1 million kilowatt-hours of power in a year and saves the space for building solar farms and shorten the transmission distance.

Waste management and pollution exchange platform

- India is set to launch its first waste management and pollution exchange and trading platform.

- London based leading provider of exchange technology will collaborate with the Centre for Ganga River Basin Management and Studies (CGanga) will to launch this Platform.

- It will address the waste management and pollution related problems in the Ganga river basin, which is a part of the Ganga clean-up initiative.

- The exchange solution will include technology to deliver market data, warehouse receipts, finance and trading, including auctions, quoting and continuous trading facilities.

CGanga

- CGanga is the new think-tank formed under the aegis of NMCG (National Mission for Clean Ganga).

- Its stated objectives is to make India a world leader in river and water science.

- It is responsible for introducing new technologies, innovations and solutions into India.

- The Centre is headquartered at IIT Kanpur and represents leading science and technological institutes of the country.

Day Zero

- Weekly reports on water levels in the dams that supply Cape Town capital of South Africa, terms "Day Zero".

- It is the day when most taps could stop running and in South Africa it is expected to probably arrive in May 2018.

- The severity of the crisis, brought on by three years of poor rains and surging water demand.

- In a bid to curb water consumption, the city has banned residents from watering their gardens and washing their cars, shut most public swimming pools.

UN Ocean conference

- The UN Ocean Conference was held in June 2017 at UN headquarters in New York.

- It is a high-level United Nations Conference to Support the Implementation of Sustainable Development Goal 14.

- SDG 14 emphasises to conserve and sustainably use the oceans.

- Many voluntary commitments for concrete action to advance implementation were made by governments during the conference.

- To follow-up on the implementation of these voluntary commitments United Nations recently have launched nine thematic multi-stakeholder Communities of Ocean Action.

Anti- Smog Gun

- Delhi government to tackle its air pollution problem has tested an Anti-Smog gun in Northern areas of Delhi.

- It is simply a Water mist cannon, which is connected to a water tank and mounted on a flatbed truck.

- It sprays atomized water in which liquid is broken up into smaller droplets up to 230 feet into the air.

- The droplets merge with dust particlesreplicating the effect of rain, as rain lowers levels of air pollution by bringing particulates in pollution down to the ground.

Methanol blending with Petrol

- It is a liquid chemical which is made from the destructive distillation (pyrolysis) of wood and is chiefly synthesized from carbon monoxide and hydrogen.

- Its principal uses are in organic synthesis, as a fuel, solvent, and antifreeze.

- It is also used to produce biodiesel via transesterification reaction.

- Government will soon announce a policy which calls for 15 per cent blending of methanol in petrol to make it cheaper and also reduce pollution.

Ban on Petcoke

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

White Spotted Bush Frog

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

List of Invasive Animal Species

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

Wakaleo Schouteni

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

Mass Extinction Survivor

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

Schaller's Wood Scorpion

- It is a new species recently identified from Tripura.
- They are found in low elevations in parts of Tripura, including Trishna Wildlife Sanctuary and Bison National Park.

- It is the 11th wood scorpion species from India.

- India is home to more than 125 species of scorpions. Nine of India's 11 wood scorpions are endemic to the country.

- Wood scorpions are also called dwarf scorpions as they are only about 3 cm long and live in small burrows on the ground, making them very difficult to spot.

- Scorpions belong to the class Arachnida (having 8 legs) and phylum Arthopoda (jointed legs).

- Trishna Wildlife Sanctuary and Bison National Park is well known for Indian Bison locally known as Gaur.

- It also supports of viable population of Holook Gibbon, Spectacled Langurs, slow loris, Pig Tailed Macaque.
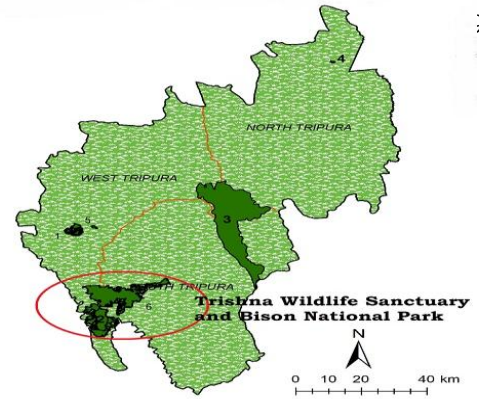
Narcondam Hornbill

- The Narcondam hornbill (Rhyticeros narcondami) is a small, distinctive, dark hornbill, measuring 45 to 50 cm in length.

- They are monogamous, non-migratory resident birds showing sexual dimorphic.

- This species is endemic to the tiny (6.8 sq.kilometers) dormant volcanic island of Narcondam, forming part of the Andaman Islands, India.

- It is resident in fairly open mixed forest, which covers most of the island, from sea-level to the peak

- This hornbill is listed as "**Endangered**" in IUCN red list and CITES Appendix II.

- It is protected under the Wildlife Protection Act and Narcondam Island is a wildlife sanctuary, near Myanmar's Coco Island.

- The Important Bird and Biodiversity Area (IBA) of these hornbill species in India is the Narcondam Island Wildlife Sanctuary.

- Its population appears to be stable despite some degree of hunting and habitat degradation.

Kapra Lake and Water Hyacinth

- Kapra Lake is located in north east part of Greater Hyderabad.

- The lake is polluted, choked by water hyacinth and acts as a breeding ground for mosquitoes.

- Water hyacinth is a free-floating perennial plant, native to South America.

- It can grow to a height of 3 feet with dark green leaves with flowers above the water and heavily branched, dark fibrous root system underneath.

- It is a very aggressive invader forming thick mats which can cause oxygen depletion in the waterbodies and kills the aquatic plants and fish.

- Submerged portion provide habitats for many micro and macro invertebrates.

- After aquatic plants die, their decomposition by bacteria and fungi provides food for many aquatic invertebrates.

- It has no known direct food value to wildlife and is considered a pest species.

Up gradation in IUCN list

- IUCN has recently upgraded the status of two kiwi birds from "Endangered" to "Vulnerable".

- The two species are the northern brown kiwi and the rowi kiwi.

- They are flightless birds found in New Zealand.

- The conservation of these species was taken care by the New Zealand government for the past 25 years under "Kiwi Recovery Plan".

- It mainly involved predator (dogs, feral cats) control which is the biggest threat for the survival of kiwis.

- The plan also has community engagement and operation Nest Egg to improve the juvenile survival rates.

- Kiwis lay the largest egg in relation to their body size of any bird species.

- The upgrade in the status came after the steady increase in its population.

Cheetahs up listed for Endangered

- Populations of cheetahs in southern Africa have declined as farming and other human activities push deeper into the Cheetah range.
- This new assessment is 11 per cent lower than the IUCN's most recent population estimate in 2015.
- International team of scientists has called for up listing the cats' conservation status from "vulnerable" to "endangered" on the International Union for Conservation of Nature (IUCN) Red List.

SCIENCE AND TECHNOLOGY

SPACE

Akash Missile

- Akash is an indigenously developed medium-range, **surface-to-air missile** defence system.
- It can target aircraft up to 30 km away, at altitudes up to 18,000 m.
- It consists of Rohini radar that detects incoming aircraft with a range of 120 km.
- It can intercept fighter jets, cruise missiles as well as ballistic missiles.
- Recently, it was test fired with an indigenous radio frequency seeker.
- This is the first surface-to-air missile with indigenous seeker that has been test fired.
- With this success, India has achieved the capability of making any type of surface-to-air missile
- This missile is being inducted into Army as Short Range Surface to Air Missile (SRSAM).

Kepler 90i

- NASA has recently announced that it found another solar system with 8 planets.
- The historic discovery was made by new scientific analysis of data obtained by the Kepler space telescope.
- Kepler 90 is the first star to host as many planets as our own solar system.
- The new planet "Kepler 90i" is a small rocky planet, but very close to the sun which is hotter than Earth
- It is located 2,500 light years from Earth and it orbits its home star every 14 days and is about 30% bigger than Earth.
- The planets in the Kepler 90 system orbit much closer to their host star than Earth is to the sun.
- It is similar to the seven planets in the TRAPPIST-1 system, previously thought to be the next biggest solar system.

PSLV C-40

- ISRO is planning to launch 31 satellites, including India's Cartosat-2 series earth observation space craft, in a single mission using PSLV C-40 in January, 2018.
- The mission will be the first PSLV mission after the unsuccessful launch of the navigation satellite IRNSS-1H.
- The mission consists of 28 nano satellites from abroad, including Finland and the U.S., one micro and one nano satellite from India along with one Cartosat satellite.
- The satellites will be launched from Sriharikota, Andhra Pradesh.
- Earlier this year, PSLV-C37 launched the first Cartosat-2 series satellite along with 103 co-passenger satellites in a single flight.

DEFENCE

Kamov 226T

- India and Russia had signed an intergovernmental agreement (IGA) earlier this year to buy Kamov 226T helicopters.
- Under the agreement, India will buy few choppers off the shelf and remaining will be fully built in India.

- The Kamov 226T is a twin-engine light but multi-role chopper offers services for both military and civilian purposes.
- The helicopters will replace India's ageing fleet of Cheetah and Chetak.
- The military version of 226T is capable of working in extreme and difficult weather conditions and can be used effectively for reconnaissance, targeting and monitoring of transportation.
- The helicopter has a maximum speed of 250 km/hour and a cruise speed of 220 km/hour with maximum takeoff weight of 3,600 kg.
- The helicopters will now be **built completely using digital technology** as part of the pilot project.
- It is the first experience to create a new helicopter modification by using only software.

NETRA

- Netra is the first indigenously built Airborne Early Warning and Control System (AEW&C) developed by DRDO.
- It is light-weight autonomous UAV for long range surveillance and reconnaissance operations.
- This radar system is mounted on Embraer aircraft which gives 240-degree coverage of airspace.
- It helps to detect and track aircraft, missiles, ships and vehicles.
- The other countries which have developed AEW&C are United States, Russia and Israel.
- For the first time, an IL-78 refueller aircraft has recently carried out air-to-air refuelling of the Embraer aircraft.
- Air-to-air refuelling allows the aircraft to stay airborne much beyond their limits, allowing better exploitation of capabilities.

IL-78 Refueller Aircraft

- It is a multi-purpose four-engine turbofan strategic airlifter designed by the Russia.
- The IAF is one of the few air forces in the world to operate mid-air refuellers. It now operates six Russian IL-78 refuellers.
- The name of the air-to-air refuelling method is 'Probe and Drogue'.

Mi-8

- Mi-8, also known as Pratap, is a helicopter served the IAF since 1969.
- It is commonly used as a transport helicopter and as an airborne command post, an armed gunship.
- It has served the IAF in mainland India and the island territories of Andaman & Nicobar and Lakshadweep islands.
- It has been deployed in various operations such as IPKF operation in Sri Lanka, UN Mission in Congo, Siachen etc.
- The Indian Air Force is phasing out the Mi-8 helicopters.

INS Kalvari

- It is a Scorpene class submarine, named after deep sea tiger shark, inducted into Indian Navy recently.
- The submarines of Scorpene class are propelled by diesel-electric engines and Torpedo is mounted as a primary weapon.
- It weighs 1500 tonnes and can go up to depths of 300m.
- It will have both anti-surface and anti-submarine warfare.
- It also features an additional air-independent propulsion (AIP) system.
- Conventional diesel-electric submarines have to surface every few days to get oxygen to recharge their batteries. With AIP systems, they can stay submerged for much longer periods.
- It is first of the six submarines developed by the French DCNS under Project 75.

- The project was signed in 2005 for building submarines by the Mazgaon Dock Limited in Mumbai with transfer of technology from France.

- INS Kalvari is followed by INS Khanderi which is currently undergoing sea trails and expected to be inducted by the end of 2020.

- The Navy currently possesses 13 conventional submarines and one nuclear attack submarine INS Chakra on lease from Russia.

- The Navy last inducted a conventional diesel-electric submarine, INS Sindushastra, procured from Russia in 2000.

Advanced Air Defence (AAD)

- Ballistic Missile Defence (BMD) is a two tired defence shield which aims to destroy enemy ballistic missiles.

- The BMD consists of two interceptor missiles, the Prithvi Defence Vehicle (PDV) and the Advanced Area Defence (AAD) missile.

- PDV/Pradyumna Ballistic Missile Interceptor is capable of destroying missiles at exo-atmospheric (high) altitudes of 50–80 kilometers.

- PDV is a two stage supersonic missile fuelled by solid motor in 1st stage and liquid fuelled in 2nd stage.

- AAD/Ashvin Advanced Defense interceptor is capable of destroying missiles at endo-atmosphere (low) altitudes of 15-30 kilometers.

- AAD is a single-stage supersonic solid fuelled interceptor missile.

- The Ballistic Missile Defence shield is expected to be achieved by 2022.

- AAD was recently successfully test-fired from a test range in Odisha.

P-8I

- It is a long-range, multimission maritime patrol aircraft manufactured by Boeing, for the Indian Navy.

- The aircraft was designed to protect the vast coastline and territorial waters of India.

- It can conduct anti-submarine warfare (ASW), anti-surface warfare (AsuW), intelligence, maritime patrol, and surveillance and reconnaissance missions.

ICGS Sujay

- Samarth Class OPV is a series of six 105m offshore patrol vessel (OPV) being built by Goa Shipyard Limited for the Indian Coast Guard.

- Indian Coast Guard Ship Sujay is the sixth in the series of six OPV under Samarth class.

- The other ships are ICGS Samarth, Shoor, Sarathi, Shaunak, Shaurya.

- ICGS Sujay is based at Paradip, Odisha under the operational and administrative control of Commander Coast Guard Region (North-East).

- It will be deployed extensively for EEZ surveillance and will give a fillip to the maritime protection in the state of Odisha and West Bengal in particular.

Dhanush Artillery Gun

- Dhanush is an upgraded version of the Swedish bofors howitzers.

- It is a 155 mm gun with a maximum range of 40 km compared to 17 –km range of the original guns.

- It is expected to be inducted in the Indian Army by 2018.

- Army is keen on inducting Dhanush since it has not inducted any new artillery gunds since the Bofors procured in 1980's form Sweden.

Exercise Ekuverin

- It is the joint military exercise conducted between India and Maldives.

- It is being conducted every year alternatively in India and Maldives.

- This year, the 8th annual exercise will be conducted in Belagavi, Karnataka.

- The objectives are to enhance defence cooperation and interoperability between the army of both countries with emphasis on Counter Insurgency and Counter Terrorist operations under UN mandate.

'Naseem Al Bahr'

- 'Naseem Al Bahr' or 'Sea Breeze' is India's bilateral naval exercise with the Omani navy conducted since 1993.
- The 11th edition of the exercise was recently held off the coast of Oman.
- The Indian Navy deployed two naval ships - INS Trikand and INS Teg - for the exercise, an Indian Navy submarine and the versatile P8I long-range maritime aircraft.
- India has an ancient maritime tradition and maritime interaction with Oman dating back to more than 4,000 years.
- Archaeological research at sites in Mesopotamia, Bahrain, and Oman has led to the recovery of artefacts traceable to the Indus Valley civilization.
- Bilateral relations between Indian and Oman were formally established with the signing of the 1953 Indo-Oman Treaty of Friendship, Navigation and Commerce, a first between India and an Arab country.

Hamesha Vijayee

- It is a major exercise carried out by Indian Army in the deserts of Rajasthan to evaluate the capability of the armed forces to strike deep into enemy territory.
- The exercise is being conducted in an integrated air-land battle scenario.

Mission Seven Summits

- It is a unique series of **mountaineering expedition** launched by Indian Air Force (IAF).
- The mission's aim is to fly the tricolour and the IAF flag on the highest peaks in every continent.
- A team of Mountaineers recently scaled Mt Vinson in Antarctica. With this, IAF becomes the first organisation in India to achieve this unique feat.

OTHERS

Trachoma

- It is a chronic infective disease of the eye and a leading cause of corneal blindness in India, affecting young children.
- It is caused by poor environmental and personal hygiene and inadequate access to water and sanitation.
- According to the National Trachoma Survey Report (2014-17), India has become free from Trachoma with an overall prevalence found to be only 0.7%, much below the criteria set by WHO.
- According to WHO, active trachoma is considered eliminated if the prevalence of active infection among children below 10 years is less than 5%.
- Trachoma is no longer a public health problem in India.
- The disease is found to be affecting the population in certain pockets of north Indian states like Gujarat, Rajasthan, Punjab, Haryana, Uttar Pradesh and the Nicobar Islands.

New Form of Matter

- Scientists have proved that existence of new form of matter called "Excitonium".
- It is made up of particles known as "Excitons", which are made from an escaped electron and the hole it left behind.
- It exhibits macroscopic quantum phenomena.

Womb Transplant

- The first birth as a result of a womb transplant in the United States has occurred recently.
- A doctor in Sweden, Mats Brannstrom, is the first in the world to deliver a baby as a result of a uterus transplant.
- The transplant helps women who had been born without uterus to bear children.

- Firstly, in vitro fertilization to retrieve and fertilize their eggs will take place to produce embryos.
- Then the embryos will be in frozen condition until they are ready to attempt pregnancy.
- After the uterus transplant, the embryos can be thawed and implanted.

Severe Acute Respiratory Syndrome (SARS)

- It is a viral respiratory disease of zoonotic origin caused by the SARS coronavirus.
- It leads to shortness of breath and/or pneumonia.
- The only symptom common to all patients appears to be a fever above 38 °C (100 °F).
- There is no vaccine for SARS and no cases have been reported worldwide since 2004.
- According to WHO, SARS affected regions include China, Hong Kong, Singapore and Canada.
- Recently, Chinese virologists have found the origins of the SARS outbreak in 2003.
- A single population of horseshoe bats in a cave in Yunnan province in China caused the outbreak.

Flink

- Functional Living Ink (Flink) is a new printing material developed by scientists from Switzerland.
- Flink contains different bacteria as ink which makes it possible to print objects with biochemical properties.
- It allows printing using different inks containing different species of bacteria at different concentrations in order to produce objects exhibiting several properties.
- The ink is composed of a biocompatible hydrogel along with bacteria to give it a structure.
- The culture medium for the bacteria is mixed into the ink so that the bacteria have all the prerequisites for life.

Plants that can glow

- Scientists have recently found a way to induce plants to give off dim light by embedding specialised nanoparticles into their leaves.
- It is considered as a major step towards using plants to illuminate the workspace, providing low-intensity indoor lighting or transforming trees into self-powered streetlights.
- Scientists embed 3 components in to a different type of nanoparticle carrier.
- It includes luciferase, luciferin and co-enzyme A.
- Luciferase is an enzyme. It is used by the fireflies that give their glow.
- Luciferase acts on a molecule called luciferin, causing it to emit light.
- Co-enzyme A molecule helps the process along by removing a reaction byproduct that can inhibit luciferase activity.
- Optimising the concentration and release rates of these components will boost the light emitted and duration of light.

Memristors & AI

- Artificial neural networks (ANNs) are computing systems that can learn and progressively improve performance on tasks by considering examples.
- Researchers have recently developed a new type of neural network chip that can dramatically improve the efficiency of teaching machines to think like humans.
- It improves a typical neural network's capacity and reduces the required training time.
- They have been created in the past with larger optical components.
- Now the researchers have created their system using memristors.
- Memristors are a special type of resistive device that can both perform logic and store data.
- This contrasts with typical computer systems, where processors perform logic separate from memory modules.
- Hence they require less space and can be integrated more easily into silicon-based electronics.

INDEX AND REPORT

Global Education Monitoring Report

- The Global Education Monitoring Report 2017-18 of UNESCO has been released recently.

- The report expresses concern over school textbooks in many countries glorifying war and military heroes rather than teaching peace, non-violence and reconciliation.

- It says that that just 10% of the textbooks across the world include explicit statements on the need for conflict prevention and resolution.

World Economic Situation and Prospects Report

- The report is a jointly published by the United Nations Department of Economic and Social Affairs (UN-DESA), the United Nations Conference on Trade and Development (UNCTAD).

- This year report marks the 70th anniversary of the publication.

- It is the flagship report on the state of global economy.

- The report highlights that, global economic growth reached 3 per cent in 2017, the highest growth rate since 2011.

- It states that, India is set to see the growth accelerating to 7.2% in 2018-19 and 7.4% in 2019-20, up from the 6.7% in 2017-18.

UN-DESA

- UN-DESA is based at UN Headquarters in New York.

- It is an entity of the UN Secretariat responsible for economic, social and environmental issues.

- It promotes international cooperation in the pursuit of sustainable development.

- It helps countries individually and regionally to formulate and implement national development strategies.

- Its in-depth policy analysis has helped resolve many of the world's most pressing socio-economic issues.

- It publishes "**Sustainable Development Goals Report 2017**", which is the annual assessment of global and regional progress towards the Goals.

UNCTAD

- It is headquartered in Geneva, Switzerland and part of the UN Secretariat.

- It is a part of the United Nations Development Group (UNDG).

- It was formed specifically to handle the problems of developing countries dealing with trade, investment and development issues.

- Other reports published by UNCTAD – Trade and Development Report, World Investment Report, The Least Developed Countries Report, Information and Economy Report, Technology and Innovation Report and Commodities and Development Report.

RNI Report

- Registrar of Newspapers for India (RNI) is mandated to submit an annual report on the status registered publications to the government under PRB Act, 1867.

- RNI reports acts as an important index for print media in the country.

- It gives comprehensive analysis of growth amongst regional language publications.

- It submits its report to the Ministry of Information and Broadcasting.

- This year report highlighted that 4007 new publications were registered.

- Uttar Pradesh tops the list of largest number of registered publications.

Global Innovation Index

- The index is released by Cornell University U.S, World Intellectual Property Organization (WIPO) and INSEAD (a France based International Business School).

- It ranks world economies according to their innovation capabilities using more than 80 indicators.

- India currently ranks **60th out of 127 countries** on the Global Innovation Index (GII) 2017 as compared to 66th rank in 2016 and 81st rank in 2015.

- Switzerland remains the most innovative country followed by Sweden, Netherlands, US and UK.

- China is the first middle-income country that entered the top 25 ranking.

- It is computed based on the average of scores in two sub-indices i.e the Innovation Input Index & Innovation Output Index.

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

The State of the World's Children 2017

- The report on "The State of the World's Children 2017" was recently released by UNICEF.

- It accesses the status of "Children in the Digital Economy".

- It has a tagline, "For every Child | a digital Bridge, for every Child | digital parity, for every children | digital safety and for every Child | digital care".

- It has highlighted that around 3 out of 5 youth in Africa are offline, compared to just 1 in 25 in Europe.

- It says that the online gender gap is growing. Globally there are 12 per cent more men than women online, and the gap is greatest in low-income countries.

World Migration Report 2018

- International Organisation for Migration (IOM), the UN migration agency has recently published "World Migration Report 2018" during IOM council, held at Geneva.

- This report is the ninth in IOM's World Migration Report (WMR) series and the first since IOM became the UN Migration Agency.

- IOM is an inter-governmental organization, established in 1951.

- It works in the field of migration with governmental, intergovernmental and non-governmental partners.

- The organisation has 166 member countries (including India) and 8 observer states.

- It aims to provide humanitarian assistance to migrants in need, including refugees and internally displaced people.

- IOM works to ensure the humane management of migration by providing services and advice to governments and migrants, and promote international cooperation on migration issues.