

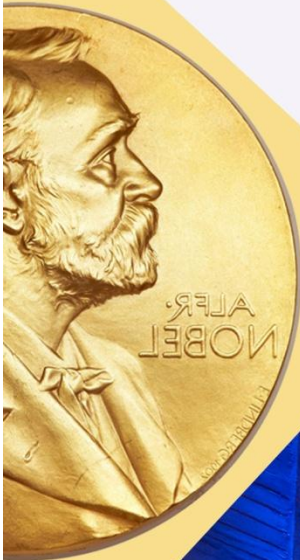


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INDEX

TITLE	Page No
G.S PAPER II	
1. POLITY	4
1.1 Involving States in Foreign Policy	4
1.2 NGT Ban on Jantar Mantar Protests	4
1.3 Euthanasia and Living Will	5
1.4 Ban on Free Expression	6
1.5 Neutrality of the Speaker	7
1.6 Delay of Gujarat Assembly Elections	8
1.7 Transparency in Conferring 'Senior Advocate' Designation	8
1.8 Uploading the Collegium's Decisions	9
2. GOVERNMENT ACTS, POLICIES AND INTERVENTIONS	10
2.1 Criminal Laws (Rajasthan Amendment) Ordinance, 2017	10
2.2 Maharashtra Draft Bill - Cut Practice in Health Care Services	11
2.3 DNA Draft Bill 2017	12
2.4 Bhamashah scheme	12
2.5 Promoting Innovations	13
2.6 Internet Shutdowns	14
2.7 Exclusion of Taj mahal	15
3. SOCIAL ISSUES	15
3.1 Protecting the Street Vendors	15
3.2 Education Survey in India	16
3.3 Taking Care of Elderly Population	17
3.4 Consent in Rape - Farooqui Verdict	17
3.5 Section 375	18
3.6 The Mathamma system	19
4. HEALTH	20
4.1 Global Hunger Index - India	20
4.2 Varying IMR across India	21
4.3 Meeting India's Immunization Goals	22
5. GOVERNANCE	22
5.1 Lateral entry - Not the Right Option	22
5.2 Kotak Panel - Recommendations	24
5.3 Aarushi Case - The Systemic Lapses	24
6. INDIA AND ITS NEIGHBORHOOD	25
6.1 Palk Bay Conflict - Deep Sea Fishing	25
6.2 Hafiz Saeed - Off the Hook	26
6.3 Enhancing India's Role in Afghanistan	26
7. BILATERAL RELATIONS	27
7.1 India and Quadrilateral Partnership	27
7.2 India and ICAN	28
7.3 US-India Bilateral trade policy	29
7.4 India - France Defence Ties	30
8. INTERNATIONAL ISSUES	30
8.1 India - UNSC Permanent Seat	30
8.2 Need for Gun Control Laws - US	31
8.3 US decertifying The Iran Deal	32
8.4 Going Ahead With Catalonia	34
8.5 U.S leaves UNESCO	34
8.6 Iraq-Kurdistan Conflict	35
8.7 Aftermath of IS in West Asia	36

G.S PAPER III	
9. ECONOMY	38
9.1 Fiscal Stimulus for an Ailing Economy	38
9.2 SEBI's Notification on Default	38
9.3 RBI's Fourth Bi-monthly Monetary Policy Review	39
9.4 Reform on Floating Rates	40
9.5 GST Council Meet - Highlights	40
9.6 Recapitalisation Bonds	41
9.7 External Benchmark - Loan Pricing	43
9.8 Nobel Prize for Economics 2017	44
9.9 Relaxed KYC	45
9.10 The Financial and Deposit Insurance Bill, 2017	45
9.11 Reconstitution of EAC-PM	46
9.12 Oil Companies - Pricing Policy	47
9.13 Gold Option Contract	48
9.14 Protecting Small Gold Investments	49
9.15 SC Ruling on Taxing Foreign Companies	50
10. INFRASTRUCTURE	51
10.1 Mumbai Stampede	51
10.2 Telecom Sector – IMG Recommendations	52
10.3 Metro rail policy - A Game Changer	53
10.4 Concerns with Saubhagya scheme	54
10.5 Bharatmala Project	54
11. AGRICULTURE	55
11.1 Rising Dependence on Edible Oils Import	55
11.2 India's Plan for Silk Production	56
11.3 Use of Unapproved GM Cotton	57
11.4 Preventing Post Harvest Losses	57
11.5 Toxic Farming	58
11.6 MSP hikes for Wheat	59
11.7 WTO - Fisheries Subsidies	60
12. SCIENCE & TECHNOLOGY	60
12.1 Prospects of BlockChain Technology	60
12.2 Gravitational Waves - Nobel Prize for Physics	61
12.3 Biological Clocks - Nobel Prize for Medicine	62
12.4 Validity of Nilavembu	62
13. ENVIRONMENT	63
13.1 Firecracker Ban in NCR	63
13.2 Wetlands Rules, 2017	64
13.3 Prediction errors of IMD	66
13.4 Contributors to Delhi Air Pollution	66
13.5 River Linking Plan Challenges	67
13.6 Ecological Impact of Coal Transportation – Goa	68
14. INTERNAL SECURITY	68
14.1 Police Reforms	68
14.2 Enhancing India's Maritime Capabilities	70
14.3 Jammu & Kashmir Dialogue	71
14.4 Cariappa Principles for Kashmir	71
PRELIM BITS CONSOLIDATION	73

OCTOBER 2017

G.S PAPER II

1. POLITY

1.1 Involving States in Foreign Policy

What is the issue?

- The ruler of Sharjah recently visited Kerala, who agreed to release 149 Indian prisoners on request by the Kerala CM.
- This has highlighted the need for an increased role of states in India's foreign policy.

How have regional parties influenced foreign policy?

- West Bengal CM stopped then PM Manmohan Singh from signing Teesta water sharing agreement with Bangladesh.
- Kerala insisted on trying and punishing in India, the Italian marines who killed two fishermen, leading to a rift in India's relations with the EU.
- Tamil Nadu had insisted that India should support the U.S. resolution against Sri Lanka in the UNHRC.

What are the recent changes made?

- The Ministry of External Affairs now has a new States division.
- This keeps in touch with the states and assists them in their ties with countries in which they have a special interest.
- The special linkage could be on account of proximity or the presence of diasporas from that state.
- Besides, IFS officers have been asked to choose a State each to understand its special requirements and to advise them.
- In this emerging scenario, the diplomats are expected to bring their regional expertise to take the correct decisions on neighbours.

What lies ahead?

- There is a need for a new structure in MEA in which the states are fully represented.
- Also, Ministry of External Affairs should have offices in key states.
- Think tanks should be established in states to facilitate policy options and to provide inputs to the states and the Centre.
- States should also be encouraged to secure best deals for themselves within the overall policy of the Central government.

1.2 NGT ban on Jantar Mantar Protests

Why in news?

National Green Tribunal (NGT) has recently banned protests at Jantar mantar, Delhi.

Paradiplomacy

- Paradiplomacy is international relations conducted by subnational on their own
- It outlines a foreign policy role for local and regional governments within a democratic federal system.
- Economic paradiplomacy related to trade and investment in particular has become an institutionalized practice across the world.
- Most of these states are successful at FDI promotion.
- In India, traditionally foreign affairs are in the exclusive domain of the Union government.
- However, in recent times "competitive federalism" is being increasingly stressed in matters of foreign affairs.

What is the significance of Jantar Mantar?

- Jantar Mantar is easily accessible to citizens while being close to Parliament.
- It is the place where many defining moments of citizens' actions like the Anna Hazare fast against corruption, rallies and meetings demanding justice for Rohith Vemula, Indian farmers protest and sit-ins against lynching and in defence of free speech have taken place.
- These have underlined India's democratic culture, reminding institutions and legislators of the anxieties and rights of the citizens they are supposed to address and serve.

What is NGT's justification?

- Some permanent residents of this part of central Delhi had pleaded to the NGT that the protests cause noise pollution and inconvenience to the residents.
- The NGT ban has come primarily on three grounds:
 1. Jantar Mantar is not an authorised site for protests. There is no executive order that demarcates it as such.
 2. Jantar Mantar Road is marked as a residential area in the Delhi Master Plan and hence cannot be allowed to be used for other purposes.
 3. The protestors and agitators cause pollution, particularly noise pollution, because of unregulated use of loudspeakers and amplifiers, public address systems, etc.
- Issues of littering, sanitation, and even of cow protection groups bringing cows and carts to the area have been mentioned in the NGT order as justification for the ban.

What is the way forward?

- NGT has clearly ignored in its passion to sanitise the area is that master plans and zoning laws are open-ended documents.
- They must necessarily incorporate room for changes that urban areas undergo over time.
- If NGT says that no protests should be allowed at Jantar Mantar because it is noisy, then every part of India should have a right to noise protection.
- Also, it is outside the tribunal's scope to have a determinative say in how public spaces are to be used for non-violent dissent.
- Thus NGT ban must be urgently reconsidered as democracy and protest is also important in a society.

1.3 Euthanasia and Living Will

Why in news?

- A Constitution Bench is hearing a petition filed by NGO Common Cause on the issue of living wills.
- The centre has told the Supreme Court that it was evaluating a draft law on passive euthanasia and is against allowing living will.

What is the case?

- **Passive euthanasia** - It refers to the withdrawal of medical treatment with the deliberate intention to hasten a terminally ill-patient's death.
- The Supreme Court, in a landmark verdict in 2011, ruled out active euthanasia.
- The centre has informed that the 'Management of Patients With Terminal Illness — Withdrawal of Medical Life Support Bill' was ready and it has provisions allowing passive euthanasia.
- It has provisions allowing passive euthanasia as recommended by the law commission which specifies certain categories of people.

- These include those in persistent vegetative state (PVS), in irreversible coma, or of unsound mind, who lack the mental faculties to take decisions.
- **Living Will** - It refers to an advance written directive of the concerned person to physicians for end-of-life medical care i.e. not to provide life support.
- The court has indicated that it may lay down comprehensive guidelines on operationalising the idea of living wills.
- However, the government has opposed the concept of an advance directive and opposes permitting people to make a 'living will'.

Aruna Shanbaug case

- Aruna Shanbaug is an Indian nurse who spent around 40 years in a vegetative state as a result of a sexual assault.
- The Supreme Court responded to the plea for euthanasia filed by a journalist, by setting up a medical panel to examine her.
- In 2011, the Supreme Court, in a landmark judgement, issued a set of broad guidelines legalizing passive euthanasia in India.
- However, given the social, legal, medical and constitutional complexities involved, it becomes essential to have a clear enunciation of law.

What are the complications with 'living will'?

- Deciding on the question of living comes with all the legal, moral and philosophical implications.
- **Legal** - An earlier verdict from the judiciary has noted that right to life under Article 21 does not include the right to die.
- Permitting living will would contravene this legal stand.
- **Rights** - Allowing it would also acknowledge the patient's autonomy and self-determination to the point of legalising a wish to die.
- **Social** - There are chances of misusing the provision and leading to the abuse and neglect of the elderly.
- On the other hand, allowing it would relieve the close family members, of a terminally ill patient, of the moral burden of making a life-ending decision.
- A living will would also rule out the possibility of doubting the life terminating decision as a murder.

What could be done?

- Given the mixed benefits, living will could be provided for with the necessary safeguards.
- The guidelines should ensure that it was really the will of the concerned person.
- Also, an independent medical board can examine the health of the person to establish the validity of the decision.

1.4 Ban on Free Expression

Why in news?

Supreme Court recently upheld the ban on "Basava Vachana Deepthi".

How did the issue evolve?

- Maate Mahadevi's book "Basava Vachana Deepthi", was banned by the Karnataka government in 1998 as the contents were thought to hurt religious sentiments of 'Veera Shaivas'.
- The government had then invoked **Section 95 of CrPC** – that allows for the suspension of publications on certain grounds.
- The book had allegedly changed the original words in Lord Basaveshwara's "Vachanas" to suit the author's world view.

What are its implications?

- The current verdict is a victory for intolerant attitudes.
- This also implies that freedom of expression deserves protection only when it raises no opposition.

Section 95 and 96 of CrPC

- This provision that has its roots in colonial law.
- It authorises state governments to ban and forfeit books if it "appears" that they might violate certain provisions of the Indian Penal Code (such as sedition, hurting of religious sentiments etc.)
- Section 96 of the CrPC allows persons aggrieved by the State government order to approach the High Court for relief.

- Religious passion has effectively been exempted from the regular mandates of democracy.
- It also highlights the fact that governments in India can ban books with ease as once CrPC Section 95 is invoked - the onus is on the author to disprove it in courts.

What is needed?

- For a book to be banned, it should be established beyond doubt that – “book attempts to insult religious beliefs with definitive hateful intentions”.
- In a just & tolerant society, the courts are expected to take the narrowest possible reading into laws seeking an outright ban.
- The preservation of individual autonomy is an essential requirement of a legitimate government.
- The court must therefore recognise that the right to freedom of speech is a liberty central to achieving an equal society.

1.5 Neutrality of the Speaker

What is the issue?

- There are numerous instances in our polity where the Speaker of the Assembly has precipitated a political crisis by seemingly political decisions.
- There is a need for building up systematic neutrality to the position.

What are the ways by which a Speaker compromises neutrality?

- **Election** - The position of the Indian Speaker is paradoxical.
- They contest the election for the post on a party ticket.
- Yet they are expected to conduct themselves in a non-partisan manner, while being beholden to the party for a ticket for the next election.
- **Political Aspirations** - The position is often used to woo the political parties by favouring them to harbour political ambitions.
- The need for re-election also skews incentives for the Speaker.
- The fear of losing the position in case of not favouring their political parties also pushes them to compromise neutrality.
- **Anti-Defection Law** - The determination of whether a representative has become subject to disqualification, post their defection, is made by the Speaker.
- The absoluteness of the Speaker's decisions can also be an incentive for potential abuse.

What are some International practises?

- Ireland has a parliamentary system close to India.
- There the position of Speaker is given to someone who has built up credibility by giving up his /her political ambitions.
- The Westminster system considers it a taboo to induct a Speaker into the cabinet.
- There is also a convention of not fielding candidates in the Speaker's constituency.
- In comparison, in India, there are many Speakers who have lost their seats in general elections.
- Also, Indian Speakers are not made members of the Rajya Sabha after they demit office.
- But the British Parliament automatically elevates the Speaker to the House of Lords.
- Only the U.S. allows the Speaker to openly engage in active politics.
- But this is compensated to an extent by their rigorous separation of powers between the judiciary, executive and legislature.

What should be done?

- Some of the above mentioned international practises should be adopted.
- The Committee, headed by V.S. Page, suggested that if the Speaker had conducted himself in an impartial and efficient manner during the tenure, he should be allowed to continue in the next Parliament.
- Anyone seeking the office of the Speaker might be asked to run for election on an independent ticket.
- Any Speaker should be barred from future political office, except for the post of President, while being given a pension for life.

1.6 Delay of Gujarat Assembly Elections

Why in news?

- Assembly elections for the Gujarat and Himachal Pradesh are usually announced simultaneously.
- Currently, Gujarat elections have been suspiciously delayed by almost a month.

What is the reason?

- EC has reasoned that the delay was to facilitate the completion of flood relief programmes in Gujarat.
- But this does not hold ground, as the 'Model Code of Conduct' for elections only prohibits fresh further spending and not work in progress.
- Hence it questions the credibility of the Election Commission (EC) as an independent impartial body.

What are the implications of the delay?

- **Contradiction** - Preference for holding simultaneous elections has been voiced by both the government & EC.
- The current delay is thus a not just against the norm but also contradicts the envisioned election outlook.
- **Misuse** - Gujarat government had announced a variety of sops & concessions in this suspiciously attained grace time.
- In 13 days, the state government has announced projects worth about Rs 11,000 crores and almost 16 populist concessions.
- These include tax rebate for farmers, Salary increases for state government employees and diwali bonuses.
- Other high-profile projects include metro rail project, Dahej Ferry Service and giving the nod for a flyover & bus station.
- This episode has violated the spirit electioneering and the democracy.
- If left unchecked, it could erode the credibility of our democratic institutions that have been pain-strikingly evolved over the years.

1.7 Transparency in Conferring 'Senior Advocate' Designation

Why in news?

Supreme Court has laid down guidelines for designating lawyers in the Supreme Court and High Courts as senior advocates.

What is the new process?

- Previously, the judges of the SC and HC had the sole discretion of according this status to advocates.
- Now, applications will be vetted by a permanent committee known as the Committee for Designation of Senior Advocates.
- **Members** - It will have 5 members and a permanent secretariat.
- The committee will consist of the Chief Justice of India, two senior-most judges of the SC/HC, 'Attorney General of India' or 'Advocate General of State'.
- Additionally a person from the Bar will be nominated by the above mentioned members as a 5th member.
- **Assessment** - The committee will compile all the relevant candidate information and examine his case.

- It with regard to the reputation, conduct, integrity, free legal work, judgments in cases for which the advocate has appeared etc...
- The committee will examine each candidate's case, interview the candidate, and make its evaluation.
- This system is transparent and objective, and provides equal opportunity to all candidates.
- **Cons** - There is a proposal to publish names online for inviting complaints & suggestions ensuring better transparency.
- This may find some opposition with regard to privacy.
- There have also been reports of motivated complaints & objections.
- The secretariat might be dragged into the dilemma of investigating frivolous complaints or objections.

Current Procedure of Judicial Appointments

- Political interference in the selection of judges in the 1970s, forced the evolution of collegium system.
- However, the opaqueness and unsatisfactory selection, transfer, and elevation of judges to the Supreme Court caused friction.
- This led to the passing of the Constitution (99th Amendment) Act, 2014 that called for the establishment of National Judicial Appointments Commission - NJAC.
- NJAC sought to give politicians and civil society a final say in the appointment of judges to the highest courts.
- In 2015, a Constitution Bench of the SC declared NJAC unconstitutional on the ground that it interfered with judicial independence.

Can this be considered for Judicial Appointments?

- Currently appointments to the higher judiciary are through a non-transparent collegium system.
- The institutional mechanism for conferring senior Advocate status also seems suited to substitute the existing collegium system.
- Hence, the sooner the judiciary adopts such a mechanism for judges too, the better it is for the institution.

1.8 Uploading the Collegium's Decisions

Why in news?

Supreme Court collegium has recently decided to upload its decisions on website.

What are the highlights of the move?

- Decisions taken by SC including elevation, transfer and confirmation of judges will be uploaded.
- The resolution is passed to ensure transparency and yet maintain confidentiality in the Collegium system.
- The information posted online will also "indicate" reasons for the recommendation or rejection of a name for judicial appointment, transfer and elevation to High Courts and the Supreme Court.
- As a start, the Supreme Court has posted online detailed reasons for judicial appointments to the Madras High Court and the Kerala High Court.

What is the reason behind this move?

- The Collegium has been criticised for its opaque mode of functioning while recommending judicial appointments.
- Many senior lawyers of the Supreme Court Bar Association criticised the closed-door decisions of the Collegium.
- The mode of functioning of the Collegium had seen criticism, even within the Collegium itself.
- This paradigm shift is after the resignation of Karnataka High Court judge shortly after his transfer to the Allahabad High Court.

What is the way forward?

- The proposal to upload the Collegium recommendations faced strong objections within the judicial community itself.
- Posting such information online would cause judicial candidates, including senior advocates, sitting judges and judicial officers, acute embarrassment.

2. GOVERNMENT ACTS, POLICIES AND INTERVENTIONS

2.1 Criminal Laws (Rajasthan Amendment) Ordinance, 2017

Why in news?

Rajasthan government has recently promulgated an ordinance to shield judges and bureaucrats facing corruption charges.

What are the provisions?

- The Rajasthan government recently passed Criminal Laws (Rajasthan Amendment) Ordinance, 2017.
- It is now sought to be made into a law.
- It protects serving and former judges, magistrates and public servants from being investigated for on-duty action, without government's prior sanction.
- It provides 180 days immunity to the officers.
- If there is no decision on the sanction request after this stipulated time period, it will automatically mean that sanction has been granted.
- In addition, it prevents the media from reporting on accusations on such persons till the sanction for probe is obtained.
- Violating this clause would call for two years imprisonment.

What are the concerns?

- **Corruption** - These changes seem to be increasingly shielding the public officials from corruption cases.
- Insulating honest officials from frivolous or motivated charges of wrong-doing is justifiable.
- However, prosecution for disclosing the identity of the public servants concerned offers an unjustifiable protection to erring officials.
- Also this special protection to those in power, in instances of corruption, seems to go against Article 14 of the Constitution, conferring equal rights in front of the law.
- **Media freedom** - This is the first time a section prescribing punishment for disclosure is being introduced in India.
- It is a grave threat to media freedom and the public's right to know.
- **Investigation** - Provisions in CrPC and Prevention of Corruption Act already make prior sanction mandatory, before a court can take cognizance of a public servant corruption case.
- In addition to this, the ordinance, also restrains judicial magistrates from ordering an investigation without prior sanction.
- This could hamper a possible probe, as no investigating agency can approach a sanctioning authority without gathering any material.

What should be done?

- Noticeably, the Supreme Court had earlier struck down a statutory provision for prior government clearance for a CBI probe against officials of the rank of joint secretary and above.
- This verdict is a touchstone to test the constitutionality of the pre-investigation sanction requirement.
- So centre should speed up amendments that redefine criminal misconduct among public servants at the same time protecting legitimate decisions.
- In all, the anti-corruption legislations should aim at punishing the corrupt, protecting the honest, and ensuring whistle-blower safety.

2.2 Maharashtra Draft Bill - Cut Practice in Health Care Services

Why in news?

Maharashtra has recently drafted the Prevention of Cut Practice in Health Care Services Act, 2017.

What is a “Cut Practice”?

- "Cut" Practice refers to the commissions paid for making medical referrals.
- It involves those in the medical network such as the doctors, pharmaceutical companies, diagnostic laboratories and hospitals.
- Several MBBS graduates see this as a means of recovering their investment in medical education.
- Also, with rising competitors, medical practitioners resort to commissions practice as a means of survival.
- The bill will be the first of its kind in India to make a formal recognition of the commissions practise for referral of patients.
- The ultimate objective is to reduce the cost to the patient who pays fees that include the commission to the referring doctor.

What does the draft Bill propose?

- The bill is to address the rampant "Cut" Practice.
- Bill defines “cut practice” by stating that exchange of gifts, favours, money or material will be considered commission in case a patient is found being referred for treatment, tests or for admission of patients.
- It prohibits all healthcare service providers from demanding or accepting gratification through these means.
- This applies to hospitals, doctors, pharma companies, diagnostic labs, maternity homes, dispensaries and clinics.
- It authorises the Maharashtra Anti-Corruption Bureau (ACB) as the investigating agency.
- It also allows the government to initiate suo motu inquiry against doctors.
- Punishment ranges from a fine of Rs 50,000 to imprisonment up to five years.
- Medical council can suspend the licences of doctors found guilty of engaging in “cut practice” for at least 3 months.
- Names of those being probed will be kept confidential until charges are confirmed, to ensure that genuine doctors were not harassed over a false complaint.

What are the shortfalls?

- The **ACB**, whose primary competence is in the investigation of corruption, may find it difficult to pursue **technical or scientific inquiries**.
- E.g. Establishing the need and validity of a test or consultation recommended by a doctor.
- Officials from the implementing body said **malpractice in the cash form** may be difficult to trace.
- It is also difficult to establish if a particular drug, manufactured by a certain company was prescribed actually for pecuniary gains.
- There are systems wherein a doctor or clinic ties up with a diagnostic lab to share profits.
- But going by the definition of ‘cut’ practice in the draft Bill, even this can be investigated on technical grounds, even if no ‘cut’ has been paid.
- Besides, the draft Bill has not made any mention of the **medical tourism**.

2.3 DNA Draft Bill 2017

What is the issue?

The DNA draft Bill which seeks to streamline genetic profiling activities, has potential once approved.

What is DNA draft bill?

- The Law Commission of India submitted a draft of the DNA Based Technology (Use and Regulation) Bill, 2017 to the government in July.
- The DNA Bill seeks to regulate human DNA profiling and establish standard procedures for DNA testing.
- The draft Bill has substantially modified the earlier Bill and suggested various measures to fortify the use of uncontaminated DNA samples for investigation purposes and for identifying missing persons.
- Given that there are no appropriate legal mechanisms with regard to identifying missing persons, victims of disasters, etc.
- It proposed a Plan for Constituting a statutory body called the DNA profiling board and a DNA data bank.

What is DNA profiling board?

- The profiling board will undertake functions such as laying down procedures and standards to establish DNA laboratories and granting accreditation to such laboratories.
- It will also be responsible for supervising, monitoring, inspecting and assessing the laboratories.
- The Board will frame guidelines for training the police and other investigating agencies dealing with DNA-related matters.
- Its functions also include giving advice on all ethical and human rights issues relating to DNA testing in consonance with international guidelines.
- DNA profiling will be undertaken exclusively to identify a person and will not be used to extract any other information.

What are the features of DNA data bank?

- DNA data banks both nationally and on a regional basis in the States will be setup.
- The data bank will primarily store DNA profiles received from the accredited laboratories and maintain certain indices for various categories of data such as
 1. Crime scene index.
 2. Suspect's index.
 3. Offender's index.
 4. Missing persons' index
 5. Unknown deceased persons index - with a view to assisting families of missing persons.
- Strict confidentiality will be maintained with regard to keeping records of DNA profiles and their use.
- The DNA profiles shall be shared with and by foreign governments or government organisations or agencies only for the purposes enumerated in the Act.

2.4 Bhamashah scheme

What is the issue?

- State governments perform well in their DBT schemes when compared with union government's schemes.
- Bhamashah scheme of Rajasthan government proves this scenario.

What are the concerns with union government schemes?

- The DBT deficits of the Union Government have increased, as the states have become spendthrift.
- There is also the burden of 40%-50% leakage of funds in the central government schemes.
- Not many states are doing well in terms of linking payments to Aadhaar numbers of citizens.

- The only exception is Rajasthan, whose Bhamashah scheme has done better than the union DBT.

What is Bhamashah Scheme about?

- The objective of the scheme is financial inclusion, women empowerment and effective service delivery.
- It is the first family based Direct Benefit Transfer scheme of India where each family is issued a 'Bhamashah Card'.
- The Card is linked to a bank account that is in the name of lady of the house who is the head of the family.
- The card leverages bio-metric identification and core banking.
- Multiple cash benefits would be accessed through the Bhamashah Card and will be directly transferred to bank accounts of the beneficiaries.
- Over three years, DBT transactions over the Bhamashah platform have crossed Rs 10,000 crore for purposes like pension payments, insurance, scholarships, housing, etc.

2.5 Promoting Innovations

What is the issue?

- India ranks 60th in a list of 127 countries on the Global Innovation Index (GII) of 2017.
- It ranks 43rd among 45 countries in the recently-released International Intellectual Property (IP) Index, 2017.
- The poor record on IP protection calls for appropriate governmental intervention.

What are the initiatives in this regard?

- The National Innovation Council (NIC) in 2010 aimed at promoting innovations and making India a hub of innovations.
- The key mandate of NIC was to formulate a roadmap for innovations for 2010 to 2020.
- It submitted three annual reports to the government; the last one in 2013.
- Sectoral innovation councils were set up in 25 major departments of Union government, including the ministry of agriculture.
- State Innovation Councils were also set up at the state level, as a measure of decentralisation.
- The present government has increasingly been stressing on its goal of promoting innovations.
- The Atal Innovation Mission is a notable initiative in this regard.

What are the shortcomings?

- Prime challenge for the government is to support and protect innovations.
- e.g One of impacts created by the lack of support system for innovations is the **rising incidence of illegal sales of Herbicide-Tolerant BT Cotton seeds.**
- One of the biggest innovations in Indian agriculture is the introduction of Bt cotton in 2002.
- Mahyco Monsanto Biotech (MMB), which released the Bt cotton, also intended to release HT Bt cotton (an innovation in Bt cotton).
- MMB thus applied for approval to the Genetic Engineering Approval Committee (GEAC).

Global Innovation Index

- GII is an annual ranking of countries by their capacity for and success in innovation.
- It is prepared by Cornell University, INSEAD and World Intellectual Property Organisation (WIPO).
- It is based on data derived from several sources, including the International Telecommunication Union, the World Bank and the World Economic Forum.

HT Bt Cotton

- Herbicide Tolerant Bt cotton is an innovation in the Bt cotton.
- It offers the twin advantage of bollworm resistance and herbicide tolerance.
- In comparison, the approved Bt variety (Bollgard I and Bollgard II) is only bollworm-resistant.
- It takes care of the weeds problem at a much lower cost than the labour farmers have to engage for weeding.

- But **before MMB could be granted permission, HT cotton was illegally pirated**, probably from countries like the US, Australia, etc that had already released it officially.
- These pirated HT cotton seeds were bred in India and several companies sold them in large scale.
- Despite MMB's complaints to GEAC and the concerned ministries since 2008, there has been no action from the government side.

What should be done?

- The rising scale of illegal avenues for commercialising innovations undermines the regulatory systems.
- Government should thus create an enabling environment to safeguard **intellectual property** of individuals.
- Private and public companies that develop new products and ideas through their own investment must be encouraged.
- **Regulatory bodies** need to clear the applications for innovative products with utmost priority.
- Delaying this process would only give scope for their introduction by pirates.
- Firm **IP protection laws** and stern action against illegal activities are essential to **boost innovations**.

2.6 Internet Shutdowns

Why in news?

A recent report shows that in India about 55 Internet shutdowns were triggered by government till October 2017.

What is a government triggered internet shutdown?

- During an aggressive political instability situation in a particular region, to preserve law and order government will decide to cut-off essential supplies or resource to that region.
- In the 21st century, the Internet has become an increasingly important essential resource.
- This growing importance of the Internet in personal life, at times poses a great challenge to governmental authorities.
- Governments therefore attempt to re-orient the relationship between the individual and the state in their favour by controlling the Internet.
- In India, one ubiquitous form of such control is the "Internet shutdown".

What are the instances of internet cut offs?

- Government has cut-off Internet access to prevent violent protests (Kashmir) and cheating in exams (Gujarat).
- There are instances of 37 Internet shutdowns, triggered by 11 States over a two-year period.
- It has serious consequences both for civil rights, and for businesses.
- The sheer ubiquity of Internet shutdowns makes it clear that it is being used as a routine card in the ever-expanding "law and order" toolkit of the state.

What are the issues with these shutdowns?

- For a long time, the legal basis of Internet shutdowns was unclear.
- A few years ago, the High Court of Gujarat invoked Section 144 of the Code of Criminal Procedure (CrPC) to uphold an Internet shutdown.
- Section 144 is primarily used to secure an area from damage or harm in the case of a potential or actual law and order disturbance, and more notoriously, to ban protests or other forms of political action in places such as central Delhi.
- The key flaw in the Gujarat High Court's decision was its failure to understand that the provisions of the CrPC cannot directly be transposed into the online world.

What needs to be done?

- Government plan to achieve a temporary illusion of security at the cost of a permanent loss of freedom must be avoided.

- There must be no invasion of the individual's right than what is strictly necessary to achieve the state's goal.
- To adjudicate a fair constitutional balance Courts must take into account the exceptional character of Internet shutdowns and their impact on core civil liberties before validating them.
- The government must, by law, subject Internet shutdowns to judicial scrutiny as soon as reasonably possible.
- Government to preserve law and order must use less drastic ways, such as increasing security, or addressing grievances of the citizens.

2.7 Exclusion of Taj mahal

Why in news?

Uttar Pradesh government recently neglected Taj mahal from its tourism brochure.

What are the significances of Taj mahal?

- The Taj Mahal was built by Mughal emperor Shah Jahan in 1631, which acts as a global cultural exporter.
- Over the centuries, the Taj Mahal has been an enduring message of love and peace.
- It employs the principles of self-replicating geometry and symmetry of architectural elements and is regarded as the most exquisite monument built by the Mughals.
- The Taj Mahal and Agra accounted for the maximum number of tourists, which form the backbone of the small and medium businesses built around tourism in and around Agra.

What was the government's rationale?

- The state bureaucracy justified the step by stating the booklet was to promote the lesser known tourist destinations of the state.
- Since Agra and the Taj Mahal were already recognised and established tourist destinations, these were omitted from the list.

What are the implications?

- It is seen as a deliberate attempt to undermine the state's Muslim heritage.
- It is also argued that the state government is trying to promoting Hindu pilgrimage sites at the cost of other monuments.
- The country's leisure tourism industry is centred on the Taj Mahal and its exclusion would do more harm than good.

3. SOCIAL ISSUES

3.1 Protecting the Street Vendors

Why in news?

Hawkers near Mumbai's Haji Ali Dargah had recently filed complaint in the SC about their eviction by corporation authorities.

What are the significances of street vendors?

- Street vending provides opportunities for those who are unable to get regular jobs in formal sector on account of their low level of education and skills.
- The government recognised street vending as a source of self-employment for the poor in cities and towns with their meagre financial resources.

What are protections available to the street vendors?

- The hawkers are protected under the Street Vendors (Protection of Livelihood and Regulation of Street Vending) Act, 2014.
- The Act was passed on the basis of the legislative recognition that street vendors constitute "an integral part of our urban economy".
- It also empowers them to provide "affordable" as well as "convenient" services to a majority of the urban population.

- The law mandates that hawkers can be removed only as a last resort or unless there is a clear and urgent need, that too to rehabilitate them.

How does this law empower the street vendors?

- **Committee** -The law provides for the constitution of a town vending committee in each local authority to ensure implementation of the provisions of the Act.
- **Representation** - It has representatives among officials, non-officials, and street vendors, including women vendors.
- It also has a due representation from Scheduled Castes, Scheduled Tribes, Other Backward Classes, minorities, and persons with disabilities.
- Forty percent of the committee members are from among street vendors to be selected through election, of which one-third shall be women.
- **Decision making** -The committee makes decisions on various aspects, including determination of natural market, identification of vending zones, preparation of street vending plan, survey of street vendors, and so on.
- **Certification** -To avoid arbitrariness of authorities, the law had provided for a survey of all existing street vendors.
- It will issue of certificates of vending to all the street vendors identified in the survey.

3.2 Education Survey in India

What is the issue?

- Young Lives - recently released a survey on the education sector.
- This is part of the study on childhood poverty that is aligned to the Millennium Development Goals (MDGs) of the UN.

What does the survey say?

- **Data** - 91% of 15-year-olds were enrolled in secondary schools in 2016 as against 78% in 2009.
- The increase in enrolment was particularly significant for backward class girls - 90% from 74%.
- The number of children attending private schools too increased marginally to 37% the 2008 figures.
- Private school enrolment remained biased towards - boys, upper castes, the wealthy and urban children.
- **Other findings** - Although more children were found to be in schools, learning outcomes weren't encouraging.
- Sarva Shiksha Abhiyan's work in ensuring better access to schools in rural areas was found to have an immense impact.
- A large gap was also noticed in learning outcomes of disadvantaged children & the wealthier - with the later making more progress.
- Only the most disadvantaged attended government schools.
- The biggest reason for girls opting out of school at the secondary stage was marriage.
- Financial cost of education & the earning potential of the student (as labourer) was also another reason.

What is the way ahead?

- Better implementation of the Child Marriage Prohibition Act and the Child Labour Prohibition and Regulation Act 2016, is needed to ensure that children stay longer in schools.
- Adequate investments had to be made in quality pre-school education and capacity building of teachers.
- At the same time, social security networks were needed for the poorest families.

3.3 Taking Care of Elderly Population

What is the issue?

India has fastest growing demography of Sixty-plus, yet there are no significant public policies to address the elderly.

What is the status of senior citizens in India?

- Roughly 9% of India's population is aged 60 years or more, as per Census figures from 2011, as opposed to 12% globally.
- By 2050, the 60+ age group is expected to form 19 per cent of India's population.
- Kerala, Goa, Tamil Nadu, Punjab and Haryana are the top five states where the elderly comprise 10% or more of the population.
- While the north-eastern states of Arunachal Pradesh, Meghalaya, Nagaland, Mizoram and Assam have the smallest proportion of people aged 60 or more.

What are the problems faced by the elderly?

- Many rural families cannot afford a better care of the elderly led to lakhs of elderly citizens live in penury.
- Factors such as decreasing family size, migration of the young for work and abuse within the family makes the elderly stressful.
- Such elderly people live alone, the majority of them women and are easy targets of crime.
- Residential homes are not yet a viable alternative, only the economically privileged can afford private homes.
- The majority of India's aged subsists on meagre support from the government.
- The elderly has to face ambiguous processes and unhelpful and rude staff to receive elderly benefits from the government.

What is the role of the government in this regard?

- Caring for the elderly is a Directive Principle of State Policy under Article 41 of the Constitution.
- The Indian government has been providing social pensions under the National Social Assistance Programme since 1995.
- In 2007, the programme was reintroduced as the Indira Gandhi National Old Age Pension Scheme (IGNOAPS) for elderly people who belong to a below-poverty-line household.
- The central government contributes Rs 200 per month towards pension for each person aged 60 years or above and Rs 500 per month for everyone aged 80 years and above.
- State governments are expected to supplement this with at least a matching sum.
- The draft National Policy for Senior Citizens of 2011 recommended an amount of Rs 1,000 as monthly pension under IGNOAPS.
- Although the policy has not yet been finalised, some states have increased their contribution to comply with this recommendation.

3.4 Consent in Rape - Farooqui Verdict

What is the issue?

- Recently, the Delhi High Court acquitted a person accused of rape charges.
- There are divergent views in this regard, between sexual consent of a woman and rape.

What is the case?

- Mahmood Farooqui was convicted of rape charges by a trial court.
- The victim was a 35-year-old foreign woman researcher in India.
- The Delhi High Court acquitted the accused giving him the benefit of doubt.
- The two grounds are i) he had no intention to rape her ii) it was unclear that she had refused consent.

- The court has held that the women's stance on consent should not be mere hesitation or reluctance, but a clear and unambiguous “no”.

What is the 2013 amendment?

- After the Nirbhaya rape case, in 2013, significant amendments were made to the rape law provisions in the Indian Penal Code.
- Among many, it included the **definition of consent in rape cases** and established an “affirmative model” of consent.
- Accordingly, consent is defined as an indisputable voluntary agreement by words, gestures or any form of verbal or non-verbal communication by a woman.
- It clearly specifies that absence of physical resistance would not by itself amount to consent.
- Clearly, the objective behind the incorporation of this definition is to make **woman the subject of law**.
- The amendments also introduced a clause which says that if the woman “is unable to communicate consent”, the man would be said to have committed rape.
- It could be due to physical or mental infirmity, or not being given the space to communicate and be heard.

Why is the recent judgement flawed?

- The verdict seems to have completely negated the objective and intent of the definition of sexual consent in the 2013 amendment.
- The judgement has derived validity primarily from two **presumptions** -
 - i. absence of intention to rape (by the accused).
 - ii. non-communication by the woman despite a clear 'no' from her.
- Clearly, as a disregard for the amendments, the verdict displaces the woman and reinstates the **man as the subject of law**.
- The court’s reasoning was not what the woman said, but what the man understood as her consent.
- The ground of "**assumed consent**" in the verdict seems to ignore woman’s voice or freedom in matters concerning her sexuality.

What is the larger implication?

- The Delhi High Court's verdict comes as a jolt to the evolving rape law jurisprudence in the country.
- The still prevalent socio-cultural stereotypes have defied the women sensitive logic and objective of earlier legal reforms.
- The country and the judiciary should wake up to women's concerns and rights, to establish gender equality in all spheres of freedom and justice.

3.5 Section 375

Why in news?

The Supreme Court has struck down an exception to Section 375 of the IPC, dealing with the offence of rape.

What is the case about?

- The exception clause in Section 375 of the IPC had long been a controversial one.

Concerns with Sec 375

- The exception clause in Sec 375, IPC was in contrast to the following:
 1. Criminal Law Amendment Act, 2013 raised the age of consent for sexual intercourse for girls, from 16 to 18 years.
 2. Protection of Children from Sexual Offences Act, 2012 considers sex with children, those below 18, as rape.
 3. Prohibition of Child Marriage Act, 2006 and Juvenile Justice Act, 2015 also define children as those below 18 years.
- The exception worked as a disadvantage to an unmarried girl child as against a married girl child.

- Under it, intercourse or sexual act by a man with his wife, not below 15 years, is not rape.
- The Supreme Court has struck down this exception, and now a case can be registered against the husband on the girl's complaint.
- Notably, the centre's stance was in support of the exception, as marriage of minors is an old custom still practised by many social groups.
- It said criminalising the consummation of a marriage union with a serious offence such as rape would not be appropriate.

What lies ahead?

- The recent SC judgement has prioritised the rights of an adolescent above the social practises.
- However, it has restricted itself to the reading of Sec 375, IPC, but the larger issue of marital rape of women above 18 years is still unaddressed.
- Resolving this would go a long way in ensuring the rights and choices of women in their private space.

3.6 The Mathamma system

What is the issue?

Devadasi system is still prevalent with a name of Mathamma system in few parts of south India.

What are the actions taken against devadasi system?

- During colonial times, reformists worked towards outlawing the devadasi tradition on grounds that it supported prostitution.
- The Madras Devadasis (Prevention of Dedication) Act is a law that was enacted on 1947 just after independence.
- The law gave devadasis the legal right to marry and made it illegal to dedicate girls to Hindu temples.
- Before the bill became law, devadasis were not allowed to marry due to society taboo, and continued prostitution.
- In 1988 Andhra Pradesh passed Devadasi (Prohibition of Dedication) Act and Dedication of women act.

What is Mathamma system?

- The practice of "offering" girl children to Goddess Mathamma which is widely practiced by Madiga community and other adjoining communities.
- It thrives in the districts of Chittoor in Andhra Pradesh and Tiruvallur in Tamil Nadu.
- As part of the ritual, girls are dressed as brides and once the ceremony was over, their dresses are removed by five boys, virtually leaving them naked.
- They are then forced to live in the Mathamma temples, deemed to be public property, and face sexual exploitation.
- At present, there are an estimated 1,000 Mathammas in the Chittoor district, of them 363 are children in the age group of 4-15.
- The Mathamma system has its equivalent in other regions of Andhra Pradesh and Telangana.

Devadasi System

- It's a practice that is widely believed to have been abandoned decades ago.
- In South and parts of Western India, a devadasi is a girl "dedicated" to worship and service of a deity or a temple for the rest of her life.
- The age group of a girl to be converted as devadasi is 8–16 years.
- In addition to taking care of the temple and performing rituals, these women learned and practiced classical Indian artistic traditions like Bharatanatya and Odissi dances.

How girl children are affected by this system?

- Girls are exploited, and forced to live as sex workers and are unable to leave the exploitative system due to social pressures.
- Few girl children are dedicated to the system right from age of three and live without marriage for life.
- Many die old and lonely and sick as they are forced to sleep in the Mathamma temples or outside the homes where they work as domestic help.

Why government cannot take any action against Mathamma?

- The Dedication of Women (Prohibition) Act has had no effect on the Mathamma system in the district.
- After the bifurcation of Andhra Pradesh, there are no stipulated guidelines for the implementation of the Act.
- No scientific rehabilitation measures were possible due to lack of proper data and non-cooperation from the victims and village elders
- As it is linked with the sentiments of the community, the official machinery and the political parties shy away from taking on the tradition.
- The victimised community is largely viewed as a minority group, with no influence on vote-bank politics.

4. HEALTH

4.1 Global Hunger Index - India

Why in news?

International Food Policy Research Institute (IFPRI) has recently released the Global Hunger Index (GHI) report.

What were the findings?

- India ranked 100th among 119 countries.
- It is worse than the likes of North Korea, Bangladesh, and Iraq.
- It is only better than Pakistan and Afghanistan among Asian countries.
- Notably, India is at the high end of the “serious” category.

What is the anomaly in this regard?

- India is the world’s second largest food producer; but is also home to the second highest population of under-nourished in the world.
- India has taken some successful measures in addressing lack of access to food.
- E.g. The Food Security Act, mid-day meals, ICDS, etc.
- Also, India has witnessed a decline in stunting and a sharp fall in under-5 mortality in the last 25 years.
- India is thus not "hungry" in terms of calorific intake.
- However, the **calorific intake is poorly reflected in the physiological outcomes** such as height and weight.
- More than one-fifth of Indian children under five are 'wasted' and over a third are 'stunted'.
- Therefore, despite the relative progress over the years, the numbers remain still high for child wasting and stunting.

Global Hunger Index

The GHI score is a multidimensional index composed of four indicators

1. proportion of **undernourished** in the population.
2. **mortality** rate of children under the age of five (deaths per 1000 live births).
3. proportion of children under five suffering from **wasting** (low weight for height).
4. proportion of children under five suffering from **stunting** (lower height than typical for age).

What is the cause?

- Household's poor access to **sanitation** is one of the factors that GHI.
- Poor sanitation causes poor absorption of nutrients.
- Gender inequality is one of the prime contributors as women in many societies eat after men, which usually mean lesser food.
- This continues even when they are pregnant, thereby directly affecting the child.
- Also, the ill-effects of **open defecation** and **water contamination** are hampering the possible positive results of nutrients intake.
- Notably, water-borne diseases like diarrhoea have been responsible for most of the under-5 deaths.

What should be done?

- It is essential for India to take measures on improving sanitation and fighting related infections.
- The children and their caregivers should be trained to follow hygienic practices and take healthy foods.
- Inequality in all its forms must be addressed to meet Sustainable Development Goal 2 of Zero Hunger for everyone by 2030.
- This can not only improve India's ranking but also render meaningful its efforts on food security.

4.2 Varying IMR across India

What is the issue?

- Despite its rapid GDP growth, India stands at 49th position out of 225 countries with 40.50 Infant mortality rate (IMR).
- There are also high Intra-State and Inter-State variations in IMR.

What are the variations in IMR among states?

- According to India's Sample Registration System, Goa (8), Pondicherry (10), Kerala (6) and Manipur (9) saw the lowest infant-mortality rates in 2016.
- Madhya Pradesh, Assam, Odisha and Uttar Pradesh saw the highest, in that order.
- Despite Kerala's low infant mortality, the hilly regions of districts like Kasargod have lagged behind.
- Similarly, the Vidarbha region has suffered, while there are differences in eastern and western Uttar Pradesh.
- The major reasons are premature birth, low birth weight, neo-natal infections, asphyxia and trauma.
- After the first month, diarrhoea and pneumonia become the leading causes of death.

IMR

- IMR compares the number of deaths of infants under one year old in a given year per 1,000 live births in the same year.
- This rate is often used as an indicator of the level of health in a country and of the quality of life in a community.
- High infant mortality has been linked to poor maternal health and inter-generational poverty in families.

What are the reasons for varying IMR across the states?

- Per-capita spending on health in Indian States was the biggest predictor of infant mortality.
- For example, tribal communities in Odisha have high rates of malnutrition, a big cause of infant mortality.
- Southern States like Kerala have an extremely lower IMR because of widespread literacy and urbanisation.
- The settlements intra state have higher IMR is due to lack of healthcare infrastructure facilities.
- The willingness of people in rural and tribal areas to access this infrastructure is crucial.
- Greater female autonomy, which means women give birth at a later age and wait longer between births, is a significant factor for lower IMR.
- Even the transport infrastructure of a State can have a role in reducing infant mortality.

What can be done?

- Low birth weight can be prevented if the mother is well-nourished, diarrhoea can be avoided by exclusively breast-feeding the child in the first six months.
- Merely ensuring that women go to hospitals to deliver their children can prevent asphyxia and trauma.
- The Janani Suraksha Yojana, an initiative under the National Rural Health Mission, which gives women a cash incentive for delivery in hospital, has had a great impact on infant mortality since it began in 2005.
- Under the National Rural Health Mission (NRHM), pregnant women received better care and newborn immunisations improved.

- The uptake of the Janani Suraksha Yojana and NRHM needs to be ensured across the states it could address some of the variations in IMR across India.

GVAP

- The GVAP was launched in 2012 by WHO.
- It is a formidable step towards providing equitable access to vaccines for people living in low-income countries.
- Under GVAP, 194 countries came together to commit better healthcare for the world and with a promise for a disease-free future.

4.3 Meeting India's Immunization Goals

Why in news?

According to the 2016 midterm review of Global Vaccine Action Plan (GVAP), India continues to have the highest number of unvaccinated children worldwide.

What is the status of global immunisation coverage?

- Recently WHO estimated that 20 million infants worldwide still do not receive the most basic vaccines under GVAP.
- Essential immunisation coverage rates in low-income countries have increased by a paltry 1 per cent since 2010.
- A whopping 68 countries, including India, fell short of the 90 per cent basic immunisation target coverage.
- This has hampered the overall progress of GVAP.

What is India's response to vaccination crisis?

- India introduced immunisation programme Mission Indradhanush in 2014, to improve the 65% immunisation rate achieved in its Universal Immunisation Programme (UIP) since 1985.
- Further, new vaccines were added to the UIP in realising India's obligations to GVAP 2020.
- Government identified 201 high-focus districts across 28 States that have the highest number of partially-immunised and unimmunised children and channelled resources to address the gap.
- India recently launched one of the world's largest vaccination campaigns against measles, a major childhood disease, and congenital rubella, which is responsible for irreversible birth defects.
- The campaign will vaccinate more than 35 million children in the age group of 9 months to 15 years with the measles and rubella vaccine.

What measures are needed to achieve vaccination targets?

- Stakeholder cooperation will be paramount in making India fully immunised.
- Building awareness about the value of vaccines is crucial step.
- Community-based information provided by trusted sources can help address issues confronting vaccine hesitancy at large.
- Optimal usage of technologies for vaccine delivery is required.
- Use of electronic vaccine intelligence network technology (eVIN) that digitises vaccine stocks through smart phone apps must be encouraged.

5. GOVERNANCE

5.1 Lateral entry - Not the Right Option

Why in news?

The NITI Aayog has recently recommended that "lateral entry" from the private sector should be introduced in the civil services.

What was the need?

- Independence is an essential condition for effectiveness of bureaucracy.
- Unfortunately, the deteriorating quality of political executive has robbed the bureaucracy of its independence and freedom to "speak out its advice".
- Political governments have used postings, transfers, re-employment, charge sheets, and of late tickets to elections to influence bureaucrats.

- The government, instead of addressing these problems, is opting for a quick fix which will further erode the efficiency of the IAS.
- Notably, the most touted domain knowledge and lateral entry is said to do little to address the present concerns in civil services.

Why should the present system continue?

- A rising complaint is that the IAS is lacking domain knowledge in a fast-evolving, technology-driven world.
- But a deeper look into the demands reveals that domain knowledge may not be the right choice to handle challenges in civil services.
- **Role** - Technology intersects with the development needs of the common people, which can vary from village to village.
- Clearly, there can be no one size fits all solutions, no matter how good the technology is.
- Thus, the civil servant's role here is that of a synthesiser i.e. to assimilate a technology or idea, adapt it to the local context, and then implement it.
- One has to be qualified to coordinate the functioning that works through several ministries at the Centre and in the states.
- E.g. construction of a dam - a lateral entrant would regard this job for a domain (engineering) expert.
- On the other hand, a civil servant's role involves in issues with acquisition of land, resettlement and rehabilitation, environmental and social impact assessments, financial planning, negotiating PPPs, etc.
- Starkly, the limited, one-dimensional vision that technocrats have would make them unsuitable for this role.
- **Grass-roots experience** - The first 10 years that an IAS officer spends in "the field", exposes her to the dynamics of the actual workings of the government.
- This is an invaluable input to serve the demands, future in the career at policy-making level.
- An IAS officer is uniquely qualified for this unlike a lateral entry recruit who would completely lack grass root knowledge.
- **Representation** - The "domain knowledge" is understood to be technically qualified people from outside.
- Notably, in recent years there are an increasing percentage of candidates from engineering and medicine backgrounds into the IAS.
- This gives the service, representations from technical backgrounds, to be made use of, if and when required.

What is the way ahead?

- An IAS officer is clearly a domain expert in the most difficult and complex of all domains - the public administration.
- As, this involves policies, demographics, politics, social imperatives, religion, law and order, etc.
- A lateral entrant from the private sector is highly doubtful of getting a balanced role in handling all these.
- Lateral entry would also be a regressive move towards the spoils system, giving the government the freedom to appoint loyalists, favourites and ideological compatibles.
- The government should thus address the concerns only by vesting more independence with the civil services.

5.2 Kotak Panel - Recommendations

Why in news?

Uday Kotak committee formed by SEBI has recently released its recommendations addressing issues in corporate governance.

What are the highlights?

- **Board** - It recommended a minimum of 6 directors and a maximum of 8 to be on the board of listed entities.
- And at least 50% (currently one-third) of the board should have independent directors and compulsorily one woman among them.
- It also called for more transparency on appointment of independent directors and a more enhanced role for them.
- It proposed a mandatory formal induction for every new Independent Director appointed to the board.
- It said that stakeholders should approve the application to fill a casual vacancy of office of any Independent Director.
- It held that no person be appointed as alternate director for an independent director of a listed company.
- **Other Recommendations** - The panel suggested making a distinction between the roles of chairman and MD/CEO of listed companies.
- It emphasized on regular interaction between NEDs (non-executive director) and the senior management.
- It also suggested an Audit Committee review for the use of loans or investment by holding company for over Rs 100 crore.
- It suggested increasing the number of Audit Committee meetings to five every year.
- It also proposed making D&O (Directors and Officers) insurance for independent directors' mandatory, for top 500 companies by market capitalization.

Independent Directors

- An Independent director is a non-executive director who does not have any kind of relationship, material or financial, with the company.
- At present, the Companies Act, 2013, says that one-third of the directors on board of every public-listed company must be independent directors.
- This is to ensure the independence of his/her decisions in matters related with the board.

D&O insurance

- Directors and officers Insurance is a liability insurance payable to the directors and officers of a company, or to the organization itself.
- It is provided as reimbursement for losses or advancement of defense costs in the event of loss as a result of a legal action brought for alleged wrongful acts in their capacity as directors and officers.

5.3 Aarushi Case - The Systemic Lapses

Why in news?

- Allahabad High Court recently acquitted the Talwar couple in the murder of their daughter Aarushi.
- The case has highlighted the need for a sober analysis of our investigative set-up as a whole.

How did the case evolve?

- 13 year old Aarushi (daughter of the Talwars) and their domestic help Hemraj were murdered in their Noida home in 2008.
- The Sessions court had convicted the Talwar couple in 2013 for double murder and sentenced them to life imprisonment.
- Allahabad High Court has now overturned the conviction and has given Talwars the benefit of doubt.
- High Court also severely censored the Sessions judgment for having drafted a story to implicate the couple.

What are the implications?

- **Pressure** - CBI initially wanted a closure due to lack of evidence.

- But it was overruled by a trial judge, who pressed for further investigation.
- Investigators cannot be expected to find all the hidden facts in a crime and gaps may sometimes remain.
- Rather, only a dishonest suppression of facts deserves scrutiny.
- Hence, the judiciary's tendency to exert enormous pressure on investigating agencies is certainly extra-legal.
- **Arrests** -The decision of arresting an accused must be the discretion of the investigating officer and not the courts.
- Court intervention is called for only when investigation is proven to be on a dishonest path.
- **Junior courts** – While, the trial court has indeed delivered an improper judgement in this case, the tone of the current High Court verdict is very aggressive in its criticism.
- This might create a fear psychosis among lower court judges, which might force them to play safe– thereby delaying judgments.

What are the takeaways for the CBI?

- Heightened media glare and pressure forced the constitution of multiple teams one after the other for investigating the crime.
- Hence, investigations need to be insulated from media sensationalism & political pressures for better working.
- While the CBI did come out with a laborious report, the High Court has quashed the report rooted on seemingly correct facts.
- This calls for a rational reflection, as the reputation of the organisation is under question.

6. INDIA AND ITS NEIGHBORHOOD

6.1 Palk Bay Conflict - Deep Sea Fishing

What is the issue?

- Tamil Nadu Fisheries University recently organised a one-day workshop on deep sea fishing.
- In this context, there are a range of concerns to be addressed before taking forward the deep sea fishing plan.

What is the need for new plan?

- The Palk Bay fishing conflict has figured prominently in high-level meetings between India and Sri Lanka.
- The main issue is the oversized fleet of Tamil Nadu trawlers that fish regularly in Sri Lankan waters.
- Trawlers greatly damage the ecosystem and hence are unsustainable way of fishing.
- The Sri Lankan government recently passed a legislation banning trawling.
- It is also vigilantly patrolling the International Maritime Boundary Line, capturing Indian trawl boats and fishers.
- Hence the need for an alternative to bottom trawlers was mandated.

What is deep sea fishing plan?

- The water depth should be at least 30 meters to be considered a deep sea fishing territory.
- The plan aims at promoting deep sea fishing as an alternative to trawling in the Palk Bay.
- The present plan in the Palk Bay is to extract 2,000 trawlers from the bay and replace them with deep sea vessels.
- The deep sea vessels cannot trawl or operate in the Palk Bay.
- The government is now creating a new deep sea fishing harbour at Mookaiyur, south of the Palk Bay in the Gulf of Mannar. It can also help avoid the risks of cross-border fishing.

What are the concerns?

- Due to lack of information on location of oceanic stocks of fishery resources, availability of sufficient stocks in the adjacent waters of the Bay of Bengal and Gulf of Mannar is uncertain.

- Thus the economic viability of deep sea fishing is not fully established.
- The operational cost of deep sea fishing is also a concern.
- The skills and interest of Palk Bay fishers are limited to trawlers and one-day fishing.
- Shifting to deep sea fishing needs skill upgrade.
- Till then the fate of work opportunities of existing trawl crews remains largely unaddressed.

What should be done?

- The Tamil Nadu Fisheries Department’s have to seriously monitor, control and carry out surveillance of the decommissioning process.
- The government should also ensure that remaining trawl vessels are not upgraded in size or engine horsepower beyond legal limits.
- Beyond the deep sea vision, other solutions such as buy-backs, alternative livelihoods and skill development need to be rolled out.

6.2 Hafiz Saeed - Off the Hook

Why in news?

Pakistan government has recently withdrawn terror charges against Hafiz Saeed.

What is the case?

- Pakistan’s Punjab provincial government had initially detained him in January under the Anti-Terrorism Act (ATA).
- This action was to avoid sanctions by the UN’s ‘Financial Action Task Force’ (FATF) which was to review Pakistan.
- It also came in the backdrop of immense US pressure.
- Last week, terror charges against Saeed were dropped.
- His detention will however continue under the milder ‘Maintenance of Public Order’ Ordinance.
- Notably, these developments come in the backdrop of US praise for Pakistan in securing the release of an American couple held hostage by the Haqqani Network since 2012.

Hafeez Saeed

- Hafiz Saeed, is the chief of the Jamaat-ud-Dawa, which is a frontal organisation for Lashkar-e-Toiba.
- LeT has been designated a terror group by the UN Security Council since 2002.
- Despite ample evidence detailing Saeed’s role in acts of terror against India, Pakistan has done little to curtail his activities.
- He is said to wield immense clout over Pakistan’s deep state.
- He is also believed to have masterminded the 2008 Mumbai terror attack.

How does the future look?

- U.S. and Afghanistan have only just revived talks with Pakistan on reining in the Taliban.
- Hence, Pakistan freeing Saeed will be seen as an open challenge to India, the U.S. and the international community.
- If Saeed isn’t brought to justice, then all the international declarations on terrorism will carry little weight in future.
- The next round of the FATF, which is due at the end of this month, must be used to send a tough message to Pakistan.

6.3 Enhancing India’s Role in Afghanistan

Why is the issue?

India must expand its development role in Afghanistan further to enhance its security profile.

What are the geo-political developments?

- India recently hosted both U.S. Secretary of State Rex Tillerson and Afghan President Ashraf Ghani for separate bilateral meets.

- Also, USA & Afghanistan for the first time have been explicit in censoring Pakistan for its soft approach towards terrorism.
- USA's new South Asia policy has proposed to increase its military footprint in Afghanistan.
- Contrary to the past, the policy has underscored India's centrality in the 'Af-Pak' theatre.
- These developments present an opportunity for a formidable tri-lateral alliance in the subcontinent between Washington, Kabul & New Delhi.

What has been Kabul's response?

- Kabul has viewed these developments positively – thereby making a clear pro-India shift as opposed to Pakistan.
- Mr.Ghani even suggested that Afghanistan would restrict Pakistan's access to Central Asia if it is not given access to India.
- Indo-Afghan air corridor is also seen as an effective response to circumvent Pakistan's obstructionism.
- Notably, India was even promptly briefed on the in the sixth Quadrilateral Coordination Group meeting.
- The meet was between Afghanistan, U.S., China & Pakistan for reviving peace talks with the Taliban.

What has been India's role currently?

- In recent years, India has taken a high-profile role in Afghanistan.
- It is one of the biggest donors to Afghanistan, having committed \$3.1 billion since 2001.
- Recently, it announced that it will be working on 116 new development projects over the next 30 areas.
- India also envisions enhancing the capacity of the Afghan state and its security forces to fight their own battles more effectively.
- This is in line with the requirements of the Afghan government as well as the international community.
- Also, the current conducive conditions have demanded an increase in Indian activities – an opportunity that needs to be effectively capitalised.

Quadrilateral Partnership

- The “quadrilateral partnership” or “Concert of Democracies”, is a counterpoise to authoritarian China.
- It involves India, Australia, Japan and the US cooperating in defence and commerce in the Asia-Pacific.
- It first gained traction in 2007, when the navies of the four countries trained together in Exercise Malabar.
- In 2008, the quadrilateral fell victim to domestic politics after Australia elected China-friendly leader.
- Now Japan's Prime Minister, has again mooted a coming together of the four countries.
- This time to “counteract” Belt and Road Initiative and its growing assertiveness in the South China Sea.
- India had expanded the bilateral US-India Exercise Malabar into a trilateral featuring Japan in 2016.
- This year invited Australian military personnel to attend Malabar 2017 as “observers”.

7. BILATERAL RELATIONS

7.1 India and Quadrilateral Partnership

Why in news?

India plans to join a quadrilateral grouping against China.

What are the challenges before India?

- Earlier in 2007, this grouping had prompted a diplomatic demarche from Beijing, which wrote to all four capitals acerbically asking who they were training to fight against.
- India is the only quadrilateral partner that does not enjoy a treaty relationship with the US.
- In the event of Chinese retaliation or provocation, India may end up alone.
- India is the only member of the proposed quadrilateral that has a land boundary with China, and a hotly contested one at that.
- Even if the quadrilateral provides assurances on India's maritime security, the land boundary will inevitably remain India's problem to deal with.

- To regard India's participation in a quadrilateral, China may feel uncontrolled in propping up Pakistan as a counterweight to India.

What are the advantages for India?

- This a signal from India that Chinese aggression and animosity serves to push India closer to a rival camp, thus incurring a cost for Beijing.
- It will deepen New Delhi's ties with US, Australia and Japan with attendant benefits in diplomatic leverage and burden sharing in defence.
- Working with America and US allies in the Asia-Pacific will provide New Delhi significant leverage in shaping US policies in Afghanistan-Pakistan to the benefit of India.

What is India's Position?

- India already has a strong bilateral security engagement with most European Powers and maritime security has held high priority.
- Recently, France and India decided to expand information sharing and explore operational cooperation between their navies.
- Newer agreements for maritime intelligence sharing, augmenting naval infrastructure and logistical support are being pushed.
- China's rapid naval advances in the Indian Ocean only highlight the importance of evolving a comprehensive strategic framework.

7.2 India and ICAN

What is the issue?

- ICAN was awarded the 2017 Nobel Peace Prize for its efforts on nuclear prohibition.
- India denounced from voting in favour of a resolution brought in by ICAN, in this regard.
- This gains significance in the larger context of India's place in nuclear non-proliferation.

What is ICAN?

- The International Campaign to Abolish Nuclear Weapons was launched in 2007.
- It is a global civil society coalition which constitutes 468 partner organizations from around 100 countries.
- The campaign helped bring about the Treaty on the Prohibition of Nuclear Weapons.
- It works primarily to promote adherence to and full implementation of this treaty.
- It called upon nuclear-armed states to initiate negotiations to gradual elimination of the world's 15,000 nuclear weapons.
- Its uniqueness is that it pays attention to the humanitarian threat posed by nuclear weapons.

Conference on Disarmament (CD)

- CD is a forum established in 1979.
- It is to negotiate multilateral arms control and disarmament agreements.
- It is a forum used by its member states (around 65), to negotiate the Biological Weapons Convention and the Chemical Weapons Convention.
- While the conference is not formally a UN organization, it is linked to it through a personal representative of the UNSG.
- The CD works by consensus, and nuclear powers, including India and Pakistan, assemble there mainly to block each other.

What was its resolution?

- Earlier this year, ICAN came up with an international treaty that was negotiated and concluded at the United Nations.
- The treaty will come into effect only when 50 nations have ratified it; so far, only a handful have done so.
- When it comes into force, it will be binding only on those who have ratified it.
- Notably, none of the nine nuclear powers, including India and Pakistan, associated themselves with the treaty or the related negotiations at the UN.

- Many of them view the possession of nuclear weapons as deterrents to war.
- Officially, India holds up its commitment to a nuclear weapons-free world.
- However, it stresses that there must be a “universal, non-discriminatory and verifiable nuclear disarmament”.
- It stayed away from the treaty citing the Conference of Disarmament as the right forum to negotiate a “step-by-step process” to achieve a nuclear weapons-free world.

What does India's stance imply?

- If India had joined the other member states in voting for the resolution, it would have signalled itself as a major force for peace.
- By not doing so, India has alienated itself from a majority of the international community sizeably from the non-aligned nations.
- India has denied the opportunity of being the only Nuclear Weapon Power to continue with the record of championing for peace cause.
- This has rendered meaningless India's adherence over the past to various nuclear disarmament efforts.
- Moreover, seeking a resolution through Conference on Disarmament (CD) also seems almost unachievable.

7.3 US-India Bilateral trade policy

Why in news?

India recently raised few concerns in US-India bilateral Trade Policy Forum (TPF).

What are the significances recent of Indo-US trade ties?

- India has started buying crude oil from the US, and expected to buy more in coming years.
- There is great potential for the United States in the fast expanding aviation market in India.
- Indian aviation companies such as Spice jet and Jet Airways have placed orders for over 300 aircraft worth several billions of dollars.
- As American companies shift their manufacturing base from China to the US, this would also result in more American export to India.

What are the matters regarding Visa discussed in this forum?

- India “very strongly” raised the issue of H-1B and L1 visas with the US.
- The US has tightened the norms for issuing the most sought-after H-1B and L1 visas.
- This in line with the Trump administration’s goal to protect American workers from discrimination and replacement by foreign labour.
- It more difficult for the renewal of H-1B and L1, popular among Indian IT professionals, saying that the burden of proof lies on the applicant even when an extension is sought.
- Under the current US rules, Indian IT professionals working in the US on H-1B visas do not get back their hard-earned contribution to Social Security, which runs into at least more than USD 1 billion per annum.

What are the matters of trade discussed in the forum?

- Taking note of America’s concern on price controls on medical devices, India encouraged US companies to take benefit of the “Make in India” policy.
- USA and India have agreed to address the issue of trade deficit by increasing and diversifying bilateral trade.
- The two countries have agreed to work on the issue of poultry, pork and intellectual property rights.
- In this meeting India have yielded positive results in removal of barriers in export of Indian mangoes to the US.
- Earlier it was tough because of the irradiation procedure adopted by the US, which not only makes its very expensive, but is also time consuming.
- India has sought cooperation from the US on certain technology sectors like artificial intelligence, electric vehicles and aviation.

7.4 India - France Defence Ties

Why in news?

French Defence Minister Florence Parley had recently visited India.

What is the significance of Indo-France ties?

- France is a major partner for India in developing various key military platforms including the Scorpène submarines.
- There are various ties in defence equipment and industry cooperation between the two countries.
- France is one of the Industrial and technological partnership under the 'Make in India' initiative.
- Both countries are actively exploring measures to facilitate operational level interactions between their respective armed forces.

What are areas discussed during French minister's visit?

- French minister visited India to take part in Foundation laying ceremony of Dassault Reliance Aerospace Ltd.'s manufacturing facility.
- A range of measures to expand military to military ties were discussed.
- Enhancing the scope of their joint exercises, in particular the Varuna naval exercise scheduled in early 2018, were agreed upon.
- This meet is also likely to push for a follow on order of additional Rafael fighter jets, after the delivery of 36 jets under Rs 58,000 crore deal finalised last year.
- Transfer of critical technology for various defence projects, in particular maritime security, joint exercises of the armed for counter-terrorism are key areas discussed.

What are the advantages for India?

- Parley's visit is aimed at strengthening all aspects of France's "fast developing" defence cooperation with India, its foremost Asian strategic partner.
- The two sides also agreed to expand counter-terror cooperation and felt that a lot more can be done in the Indo-Pacific region, where China was trying to expand its footprint.
- Interestingly, the Trump Administration has also been favouring deeper Indo-US collaboration on security in the Indo-Pacific region.
- Due to the need for greater maritime domain awareness, India and France will further expand information sharing arrangements.

8. INTERNATIONAL ISSUES

8.1 India - UNSC Permanent Seat

Why in news?

U.S. Permanent Representative to the UN has recently hinted of US's support for India's permanent membership in the UN Security Council.

What is UNSC reform?

- The United Nations Security Council is one of the six principal organs of the United Nations formed in 1945.
- Despite drastic changes in geopolitics and international relations the Council has not been reformed yet.
- The demands for reform of the UNSC is based on five key issues:
 1. Categories of membership (permanent, non-permanent).
 2. The question of the veto held by the five permanent members.
 3. Regional representation.
 4. The size of an enlarged Council and its working methods.
 5. The relationship between Security Council and General Assembly.
- Notably, any reform of the Security Council would require the agreement of at least two-thirds of UN member states.

- Importantly, the agreement of all the permanent members of the UNSC enjoying the veto right is also required.

What is the complication?

- There is still lack of consensus among member States and regional groups on moving forward with the reforms.
- Veto power is one of the prime issues of contention.
- The countries aspiring for permanent membership are demanding the same veto power as that of the existing members.
- However the present permanent members reject this demand.
- Nevertheless, some countries like the US are supporting the expansion of membership, provided without the veto power.

What lies before India?

- It is to be noted that India had earlier conceded together with the others in G-4 that veto should not be an issue, at least for the present.
- But, the government sources have outrightly stressed on India's demand for equal veto rights as that of other permanent members.
- Thus India should instead take the lead offered by the U.S and explore the idea further with the U.S to take forward its aims.
- It opens up the possibility of permanent membership for India without veto.
- India should also focus on Russia and China, the two permanent members of the Security Council who do not want to see any changes.

8.2 Need for Gun Control Laws - US

Why in news?

A Las Vegas Strip in US witnessed a mass shooting, killing around 60 people and injuring more than 500.

What is the concern?

- The constitution makers did not mean this provision for the present sophisticated, automatic-firing killing machines.
- Also, being a truly federal state, the US states brought in their own rules governing the possession of arms and ammunition.
- It differs from stricter regulations to those that does not mandate even a license to bear arms and limitation on the numbers.
- The regional difference and unregulated use have resulted in many instances of gun violence, claiming thousands of innocent lives.
- On an average, more than 90 Americans lose their lives to gun violence every day.
- Though the shooter in recent case is suspected for IS links, the need is for a more sensible gun ownership regulation.

G-4

- The G4 nations comprises of Brazil, Germany, India, and Japan.
- These four countries support each other's bids for permanent seats on the United Nations Security Council.
- Currently there are five permanent members with veto power in the UNSC - China, France, Russia, UK and US.
- Alternatively, Uniting for Consensus (UfC) is a movement, nicknamed the Coffee Club, to oppose the possible expansion of permanent seats.
- Italy, Pakistan, Mexico, Spain, Argentina, Turkey, Canada, South Korea and Egypt are members to it.

Second amendment rights

- In 1791, the Bill of Rights, which is the first ten amendments to the Constitution, was adopted.
- The Bill of Rights provided for **greater constitutional protection for individual liberties** and specified prohibitions on governmental power.
- The **second amendment** pertains to the right of every citizen to bear arms and ammunition.
- It was envisaged as a provision to give a sense of freedom to the citizens and for their own defense.

What were the earlier attempts?

- Many attempts at bringing in gun control regulations failed in the US Congress.
- The former President Obama launched a final attempt through an executive action.
- Introduced in 2015, the King-Thompson bill aimed at closing the loopholes in gun laws.
- It aimed at -
 1. Expanding the existing background check system.
 2. The system would cover all commercial firearm sales including those at gun shows, over the internet or in classified ads.
 3. However, it provides reasonable exceptions for family and friend transfers.
 4. Boosting funding for federal agencies enforcing the laws.
 5. Improving treatment of mental health conditions nationwide.
- Despite these attempts, the U.S. Congress shows reluctance to take steps.
- This is primarily because of lobbying by the National Rifle Association and the huge number of gun manufacturers.
- The gun lobby's interest is being upheld by a cultural inclination for gun ownership rooted in the Second Amendment.

What should be done?

- The US Congress must take efforts to pass the bipartisan King-Thompson legislation.
- This can strengthen the life-saving background checks that keep guns out of the wrong hands.
- A Select Committee on Gun Violence could be created to study and report on a sensible legislation addressing other issues in this regard.
- This can ensure that children and those with mental illnesses don't have access to guns.
- The 'right to bear arms' would become meaningful only with accompanied responsibilities.

8.3 US decertifying The Iran Deal

Why in news?

U.S. President has announced his refusal to certify for continuing the sanctions waiver for Iran, under the Joint Comprehensive Plan of Action (JCPOA).

What are these sanctions and certifications?

- Primary sanctions are sanctions imposed on the offending party or the country itself.
- On the other hand, secondary sanctions are imposed on a third country that does business with the offending country.
- In this context, the US administration has notably two obligations with regard to the Iran nuclear deal.
- **One**, certifying every 90 days, confirming i) Iran's full compliance with the deal, ii) U.S.'s national security interests in continuing with the sanctions waiver.
- This falls under the US's domestic law namely Iran Nuclear Agreement Review Act (INARA).
- This obligation was rolled out with the objective to constrain the US presidential authority to waive sanctions on Iran.
- **Two**, renewing every 120 days, the lifting of the U.S.'s secondary nuclear sanctions under JCPOA.
- This is part of the international law.
- The Trump's recent decision only decertifies the 90 days clause and not re-imposes the nuclear-related sanctions that were waived.

Why has the US not renewed the sanctions?

- Trump had earlier remarked the JCPOA as the "worst deal ever".

- Clearly, he could have withheld the latest (September) renewal of sanctions waiver and triggered re-imposition of secondary nuclear sanctions.
- He did not do so because this would have violated the international law since the sanctions clause falls under the international law.
- Also, Iran still remains in compliance with the JCPOA and enjoys international support.
- Trump has therefore passed on the decision on sanctions to the U.S. Congress.
- Trump's latest renewal of the waiver on secondary sanctions will hold for 120 days, till mid-January 2018.
- This is why the U.S. sanctions have not kicked in yet.
- Notably, Trump's decision to decertify the nuclear deal will not necessarily withdraw the US from the agreement.

What are the larger implications?

- Only two countries have applauded Mr. Trump's decision; one, Saudi Arabia and two, Israel.
- **Europe** - However, the US's move is clearly a sign of emerging divide between the US and the European allies, for the first time since 1945.
- Evidently, the German, French and British leaders have jointly declared their shared national security interests in preserving the JCPOA.
- The European Union officials have stated that the world could not afford to dismantle a successfully working nuclear agreement.
- **Iran** - Beyond the U.S.-Iran relations, Iran can make things difficult for the U.S. in Afghanistan as also in Iraq and Syria.
- The U.S.'s ability to work with Russia in Syria or with China regarding North Korea could also be impacted.
- More importantly, the move could demotivate Iran to comply with nuclear restrictions, which could have far-reaching implications on nuclear non-proliferations efforts.
- **Business** - It is to be noted that the sanctions relief applied only to secondary nuclear sanctions i.e. third country companies were free to engage with Iran.
- However, the primary sanctions continued i.e. certain U.S. companies still remained barred from dealings with Iran.
- Also, US can continue to impose even secondary sanctions against certain foreign entities for non-nuclear harmful activity.
- This business implication of the deal is sure to influence the global countries' stances and decisions on the issue.

What lies ahead?

- **Congress** - Trump now expects the Congress to end some of the sunset clauses of 10/15 years in the JCPOA by making it permanent.
- And also to establish new benchmarks on missile activities and regional behaviour for continuing sanctions relief.
- **Trump** - On the other hand, amending INARA in line with Trump's motive is also doubtful of getting through in the US Senate.
- By all means, Trump would face a critical situation in January.
- Of either renewing the sanctions waiver for another 120 days (against his will) or withholding it which would put the U.S. in violation of the JCPOA.
- **Deal** - In either case, the implication would be a renegotiation of the JCPOA.
- Given the present international scenario, any such move in UNSC would only attract a veto by both Russia and China.
- Iran is also not prepared to renegotiate the deal and many other countries have promised to uphold the deal.

- However, the challenge is to protect their companies from the U.S. sanctions if they continue their engagement with Iran.

8.4 Going Ahead With Catalonia

What is the issue?

- The Spain government has temporarily put down the Catalan crisis by sacking Catalonia's government.
- But the demand for independence is indicative of a larger concern and needs a well-thought out response.

What is the recent move?

- Spain's Prime Minister Mariano Rajoy has struck down the recent referendum on independence for Catalonia.
- He has sacked Catalonia's President and dismissed its parliament, after the Catalan Parliament declared itself an independent nation.
- The government has also imposed a direct rule on the region.
- It has also rescheduled the elections and has called for a snap election in the region.

Why is Catalonia significant for Spain?

- **Economy** - Catalonia accounts for a quarter of Spanish exports.
- It has been the second-largest recipient of foreign direct investment in the recent years.
- It accounts for almost a fifth of Spain's GDP, the fourth-highest among the country's 17 regions.
- The region also attracts more tourists than any other region in Spain (Between Barcelona and the famous Costa Del Sol).
- If Catalonia breaks away, the Spanish GDP may possibly fall by a quarter.
- **Employment** - Though debt-driven austerity in Spain has had its impact on Catalonia, its unemployment rate is still below the national average.
- If Catalonia departs, Spain's unemployment could even double.
- Besides, Catalonia is one of Spain's more prosperous and culturally vibrant regions offering lot many opportunities.

What lies ahead?

- The government may have curbed the secessionist impulses of Catalonia, but only temporarily.
- The crisis has now reached a dangerous level as independence supporters have called for a campaign of disobedience.
- Independence supporters claim that breaking away will be financially more secure as it will not have to pay taxes to Madrid.
- The concerns in Catalonia are indicative of the **demand for greater self-determination** for regions worldwide.
- Given this, heavy-handed approach to defuse tensions will only complicate the peace process.
- E.g. Disallowing Carles Puigdemont, the Catalan President and his pro-independence colleagues from contesting the elections will only exacerbate the tensions.
- All of this suggests the need for more **constructive redistributive policies and sensible negotiations**.

8.5 U.S leaves UNESCO

Why in news?

U.S has recently announced its withdrawal from the U.N. Educational, Scientific and Cultural Organisation (UNESCO).

What is the reason?

- UNESCO, which designates world heritage spots, accorded recognition in 2011 to Palestine as its 195th member.

- UNESCO is the first U.N. agency to do so.
- This triggered controversies over the historical status of the region's religious symbols.
- And this is also a continuing issue of contention between the already divided Palestinian Authority and Israel.
- The 2012 elevation to a non-member observer status at the UN came as a boost for Palestinians demanding separate statehood.
- The US had long had stronger ties with Israel and supported its settlements in Palestine.
- Also, U.S. laws bar funding to any UN agency that recognises the Palestinian state.
- Accordingly, the US had stopped funding the UNESCO since its 2011 decision.
- It also opposed to the admission of Palestine to world bodies until the question of its UN membership was resolved.
- Meanwhile, Arab nations at the UNESCO have sought to fast-track the designation of holy sites as endangered heritage sites.
- They alleged Israel of making attacks on religious sites, affecting their authenticity and integrity.
- Notably, UNESCO declared a contested shrine in Hebron city as an endangered Palestinian heritage site.
- These events triggered U.S' exit.

UNESCO

- It is a global development agency with missions that include promoting sex education, literacy, clean water and equality for women.
- It is responsible for promoting peace, social justice, human rights and international security through International cooperation on educational, science and cultural programs.
- It has 195 member states and is based in Paris, France.
- It is known for its **World Heritage Mission** which encourages world countries to protect Natural and Cultural Heritage sites.
- It publishes **Global Education Monitoring report** and Gender Parity Index.
- It also leads the initiative of **Man and Biosphere Programme** for protecting Biosphere reserves across the world.

What does the US move signify?

- The actual withdrawal will take effect on December 31, 2018 and until then it will remain a full member of the body.
- The decision reflects U.S's concerns with mounting arrears at UNESCO, the need for fundamental reform in the organisation, and continuing anti-Israel bias at UNESCO.
- The decision is also an attempt to reassert its geopolitical influence in West Asia.

What lies ahead?

- It is to be noted that US has indicated its desire to remain engaged with UNESCO as a non-member observer state.
- This is to contribute its views and expertise on some important issues undertaken by the organisation.
- It would be hasty to view US's exit from the UNESCO as a point of no return.
- Because, earlier in 1984, the U.S. had withdrawn from the UNESCO, accusing it of favouring the Soviet Union; nevertheless it rejoined the U.N. body in 2002.

8.6 Iraq-Kurdistan Conflict

What is the issue?

- There are tensions between Iran and Iraqi Kurdistan.
- This could undermine the fight against the Islamic State.

What are the tensions between Iraq and Kurds?

- Iraqi Kurdistan, officially called the Kurdistan Region by the Iraqi constitution.



- It is a proto-state located in the north of Iraq and constitutes the country's only autonomous region.
- Recently a conflict broke out in the oil-rich city of Kirkuk between Iraqi government troops aided by Shia militias and the Peshmerga, the military wing of Iraqi Kurdistan.
- Both government troops and the Peshmerga are part of the coalition that is fighting the Islamic State in Iraq, and are also American allies.
- The U.S. provides air cover in the war against the IS and offers military advice to Iraqi troops, besides supplying weapons.
- Likewise, the Peshmerga has received arms from the U.S., Germany, the U.K. and other western countries.
- But neither the common American factor nor the shared interests in the war against terrorists has prevented the conflict in Kirkuk, that was captured by the Peshmerga from the IS in 2014.

What are the reasons for ongoing conflict?

- The alliance between the Kurds and Baghdad is tactical rather than strategic.
- Iraq and Kurds set aside their historical differences and joined hands against a common enemy. But the IS in retreat.
- Most of the cities it captured, including Mosul, Iraq's second largest, have been freed.
- This receding IS threat has exposed cracks in the alliance.
- More immediately, the Kurdish political leadership's push for independence from Iraq has alarmed Baghdad.
- President of Iraqi Kurdistan, wanted to mobilise the momentum created in the battle against the IS in favour of independence.
- Despite strong opposition from Baghdad and western capitals, Kurds went ahead with a referendum in late September, in which Kurds overwhelmingly voted for independence.
- Though the vote is not binding on the Kurdish regional government, it has undoubtedly strengthened Kurdish nationalist politics across borders.

What lies ahead?

- If the Kurds go ahead with plans to secede, it would invite a strong military response, the cracks in the coalition would be good news for the IS.
- The only country that could constructively intervene in the conflict is the U.S., which enjoys good ties with Baghdad.
- It should mediate between the two sides on the Kurdish national question.
- Unless that is addressed, the chances for another civil war in Iraq remain high.

8.7 Aftermath of IS in West Asia

Why in news?

Raqqa, the Islamic State's de facto capital in Syria, was captured by U.S.-backed Kurdish and Arab troops.

What is the present condition?

- Islamic State once controlled territories as large as the U.K.
- But is now concentrated in some pockets in Iraq and Syria.
- In Iraq, government troops were joined by Kurdish Peshmerga and Shia militias in ground battles while the U.S. provided air cover.
- In Syria, the Syria Democratic Forces (SDF), with cover by U.S. aircraft cover, and Syrian government forces aided by the Russian Air Force opened multiple fronts against the IS.
- Under pressure from all sides, the group finally crumbled.
- It lost Mosul, Iraq's second largest city, to government troops earlier in 2017.
- Now with the loss of Raqqa, its self-proclaimed "Caliphate" is now practically over.

What is the aftermath?

- The IS transformed itself into a proto-state with a global appeal.
- That state is militarily destroyed, but IS movement, is far from over.
- As al-Qaeda in Iraq, retreated to the deserts and regrouped during 2008-2011, the IS could also retreat and wait for the right moment to strike back.
- With terror attacks in faraway locations such as Paris and Brussels and lone wolf attacks by individuals inspired by its world view, the IS has already proved it could continue its lethal campaign even while under military pressure.
- The geopolitics of West Asia suggests up until now a common enemy had bound them together.
- With the IS challenge fading, cracks are visible in the coalition.
- e.g Iraqi government troops and the Kurdish Peshmerga – which fought together against the IS in Mosul – are now fighting each other in Kirkuk.
- Even in Syria, once the IS is defeated the regime could turn its focus on the Kurdish autonomous region.
- So the stakeholders should have a larger vision for a post-IS West Asia.
- The fundamental issues that helped the rise of groups like the IS should be addressed.

G.S PAPER III

9. ECONOMY

9.1 Fiscal Stimulus for an Ailing Economy

What is the issue?

- India's GDP growth in the April-July quarter slumped to 5.7%.
- Demands for unleashing a fiscal stimulus have grown stronger.

What was our previous experience?

- After the 2008 Sub-prime crisis India, like many other countries provided a fiscal stimulus package.
- It included excise duty cuts, infrastructure financing, government employee pay revision and big ticket government purchases.
- Consequently growth revived from 6.7% in FY09 to 8.9% in FY11.
- But at the same time, fiscal deficit of the government for FY09 rose to nearly 8% of GDP, from the projected 2.5%.

What are the concerns now?

- The government currently faces a situation very much similar to the one in 2008.
- While generous public spending may boost investments & demand, the government will lose out on its fiscal deficit target that is currently pegged at 3.2 %.
- This may not go down well with foreign investor sentiments.
- Whether the economy will take off on its own once the stimulus wears off is also doubtful.

How does the future look?

- If the government decides to go with the stimulus it would have to identify its priorities clearly.
- Duty cuts on petrol, constructing of affordable homes, banks recapitalisation & cheaper lending to MSMEs are some options.
- While a stimulus will rejuvenate the economy through budgetary spending, the government would have to eventually earn it back.
- Hence, tax revenues through other means will ultimately pinch the citizens after a while.

9.2 SEBI's Notification on Default

What is the issue?

SEBI earlier notified listed companies to disclose their default information to stock exchanges, but now this circular has been deferred.

What are the shortfalls in SEBI's notification?

- SEBI notified the listed companies to treat any default in bank loans, commercial paper, foreign currency convertible bonds or External Commercial Borrowings (ECB) as material information.
- It required the companies to disclose this information to stock exchanges within 1 working day.
- At present, banks consider a borrower as a defaulter only if either interest or principal repayments remain unpaid for more than 90 days beyond the due date.
- SEBI's notification would eliminate the 90 days period used to differentiate between a temporary liquidity crisis and Insolvency problems.

Fiscal Stimulus

- A 'stimulus' is an attempt by policymakers to kickstart a sluggish economy through a package of measures.
- A monetary stimulus will see the central bank expanding money supply or reducing interest rates to encourage consumer spending.
- A fiscal stimulus is one in which the government spends more from its own pocket or slashes tax rates.
- Stimuli puts more money in the hands of consumers and spending goes up – thereby encouraging demand & growth.

What are the concerns for the companies?

- Financially sound companies may suffer delays of a few days in servicing loans due to temporary cash flow mismatches.
- Requiring them to disclose information of default to the exchange within 1 working day is seen as a stringent rule.
- Disclosing such minor delays as defaults may lead to excessive volatility in the stock-prices.

What are the concerns for the banks?

- Defaulting on a bank loan does not become open information instantly, and takes 90 days before being available to the public.
- The banks believe that the decision of SEBI will further aggravate the NPA situation.
- As the rating agencies will downgrade a loan to default grade once the company has declared itself as a defaulter.
- This would increase the minimum capital required, which is difficult to be matched due to increased NPAs, reduced profits and government's inability to recapitalise banks.

9.3 RBI's Fourth Bi-monthly Monetary Policy Review

What is the issue?

- The latest monetary policy review came amid hopes that the RBI would ease interest rates to boost economic growth.
- But the RBI has laid the onus of growth squarely on the government while retaining inflation control as its primary concern.

What is the background?

- Retail inflation has gone up by around 2% since the Monetary Policy Committee's last meeting.
- Growth is decelerating and is expected to slow down further.
- These two factors explain RBI's decision to hold back reduction in the repo rate – the rate at which the central bank lends out.
- Repo-rate reduction would have increased liquidity in the economy at a time when growth isn't supportive – which might increase inflation.

How does the estimate look?

- RBI slashed its estimate of the full year growth rate to 6.7%, as against 7.3% earlier.
- It also marginally increased the CPI based inflation estimate to 4.2-4.6% for the second half of the financial year.
- 5.7% growth of the gross domestic product in the first quarter of the current financial year is worrying.
- When substantial parts of the global economy, are registering economic expansion, India's economy seems to be slowing down.
- The outlook for world trade in 2017 is also looking up, but India seems set to miss out on this.
- This is in stark contrast to the perception a few years ago, when India was seen as the "only bright spot" in the global economy.

How can the slowdown be addressed?

- It is not clear whether the ongoing slowdown is a result of disruptions due to demonetisation & GST.
- Long-term structural hurdles such as the banking crisis due to NPAs could also be the primary cause.
- While, trying to address NPAs, RBI has also stressed the need to revive the demand for credit & private sector investment.
- The festive season ahead and the upcoming 'Pay Commission' award for government employees is hoped to boost demand.

- The government should focus on further economic reforms while improving the quality of its own spending for facilitating growth.

9.4 Reform on Floating Rates

Why in news?

A committee tasked by RBI to look into banks' loan charges has suggested their recommendations.

What are the suggestions of the committee?

- It has suggested that floating interest rates for home and personal loans must be linked to an external indicator.
- External indicators can be like the RBI's repo rate, the Treasury bill rate or the interest rate on certificates of loan deposits.
- It suggests updating the floating rates in response to the policy rate on a quarterly rather than an annual basis.
- It also forbids the bank from converting loans to different interest rates following a change in the policy rate.

Floating interest rates

- A floating interest rate, also known as a variable or adjustable rate, refers to any type of debt instrument, such as a loan, bond, mortgage, or credit.
- Floating interest rates typically change based on a reference rate like a benchmark of any financial factor, such as the Consumer Price Index.
- The basis of float will be agreed between the borrower and lender, but 1, 3, 6 or 12 month money market rates are commonly used for commercial loans.

What are the privileges with banks in fixing interest rates?

- A bank can set its "prime rate" arbitrarily and then charge different borrowers various spreads over that prime rate.
- Even when RBI changes the overall policy rate, banks are under no obligation to pass on the change to their borrowers.
- Many factors provide banks the flexibility to keep lending rates high even if the monetary policy rates are going down and are on an accommodative path.
- Internal benchmarks such as the base rate or the MCLR seem to offer banks a very high degree of discretion.

What are the concerns with banks privileges?

- Banks are unwilling to cut lending rates in response with policy rates of RBI.
- Floating rates are sometimes different for existing and new customers, which defeats the entire purpose of a floating interest rate.
- The arbitrariness in calculating the base rates and floating rates by banks have undermined the integrity of the interest rate setting process.
- Such processes followed by banks are not in sync with global practices on pricing of bank loans.

9.5 GST Council Meet - Highlights

Why in news?

The GST council, in its latest meeting, has announced a range of changes, addressing many concerns with the GST.

What are the highlights?

- **Composition Scheme** - Firms under the composition scheme can pay tax at a low 1-2% and file 4 returns a year unlike the regular 18% and 37 returns a year.
- The threshold of annual aggregate turnover under the composition scheme has now been raised from Rs. 75 lakhs to Rs. 1 crore.
- The increase in the turnover threshold will make more taxpayers to avail the benefit of easier compliance under the scheme.
- **Inter-state Supply** - The earlier mandatory registration for inter-state taxable supplies, irrespective of turnover, is now relaxed if the annual aggregate turnover is less than Rs. 20 lakhs.

- The relaxation is expected to significantly reduce the compliance cost of small service providers doing inter-state trade.
- **Filing Returns** - Small and medium businesses with annual aggregate turnover up to Rs. 1.5 crores are now required to file returns and pay taxes only on a quarterly basis.
- For those with turnover above Rs 1.5 crore, the existing system will continue of three returns per month and so on.
- The registered buyers from such small taxpayers would be eligible to avail ITC (Input Tax Credit) on a monthly basis.
- This is expected to facilitate the ease of payment and return filing.
- **Reverse Charge Mechanism** - This basically means that GST is to be paid and deposited with the government by the recipient and not by the supplier of goods and services.
- This mechanism has now been suspended by the GST council until 31st March, 2018.
- It will be reviewed by a committee of experts and decided further.
- **GST on advance** - The requirement of GST on advance payments received has been relaxed for annual aggregate turnovers of up to Rs. 1.5 crores.
- The GST on such supplies shall be payable only when the supply of goods is made, even if the advance is received before the issue of invoice.
- **Unregistered Business** - It was found that the Goods Transport Agencies hesitated to provide services to unregistered persons, after GST regime.
- Responding to this, the services provided by Goods Transport Agencies to small unregistered businesses have now been exempted from GST.
- **E-way bill** - The complicated e-way bill system is now said to be introduced in gradually with effect from 01.01.2018
- The nationwide roll out is said to be carried on with effect from 01.04.2018.
- This is to give trade and industry more time to accustom themselves to the GST regime.
- **Export** - The Council decided to continue with two pre-GST era schemes that allow duty-free sourcing of materials for export production till March 2018.
- There is also an announcement on e-wallet for exporters, under which they will be given a notional amount as advance refund.
- On the basis of this credit, firms can pay IGST and GST, and refunds will be offset against this.
- The Council has also decided to clear all tax refund claims of exporters earlier than the prior plan.
- **Other measures** - There are changes in tax rates, mostly a reduction, for nearly 25 items.
- The registration and operationalization of TDS/TCS provisions are postponed till 31st March, 2018.
- This is decided after assessing the readiness of the trade, industry and government departments.
- Invoice Rules have been modified to provide relief to certain classes of registered persons.
- Also, the last date for filing the return by taxpayers under composition scheme for recent months has been extended.
- Further, a Group of Ministers (GoM) shall be constituted to examine measures to make the composition scheme more attractive.

9.6 Recapitalisation Bonds

Why in news?

The Centre announced that it was working on a Rs.2.11 lakh crore recapitalisation package for PSBs.

What is the problem?

- PSBs account for 70% of NPAs in the banking system at Rs 7.33 lakh crore.
- Indiscriminate lending earlier by banks led to a high level of NPAs.
- These NPAs were kept under the carpet. Now they have come to light because of the Asset Quality Review conducted by RBI.
- Private investments remain elusive in the face of the “twin-balance sheet problem” afflicting corporate India and public sector banks reflected in slow bank credit growth.
- Under the Basel 3 norms, banks need to increase total capital to 10.875% by March 2018 and to 11.5% by March 2019.
- CRISIL’s assessment of capital requirement for PSBs to meet Basel III requirements is in the range of ₹1.4-1.7 lakh crore.
- An earlier government plan to infuse Rs 70,000 crore into state-owned lenders between fiscal 2016 and fiscal 2019 was seen as inadequate to meet the capital requirements.
- Banks have also found it difficult to raise capital on their own through equity issuances and sale of non-core assets..
- The Government being the majority shareholder in PSBs is obliged to provide this capital.

What is the plan?

- The Rs.18,139 crore infusion is to be done from the Budget i.e from recapitalisation plan under Indradhanush.
- Rs.58,000 crore is to be raised from PSB stake sales/disinvestment.
- The rest Rs.1.35 lakh crore is to be raised via recapitalisation bonds.
- Maximum allocation will be done in the current year, rest in the course of the next two years.
- The capital infusion would also be accompanied by a series of banking sector reforms.

What is a recap bond?

- The issue of recapitalisation bonds will essentially mean that the government issues bonds to banks in lieu of capital.
- Recap Bonds are used as payment for the shares bought by the government to ailing banks in a bid to raise their capitals.
- Banks will subscribe to these bonds as part of their investment portfolio.
- They will use excess deposits they acquired from the demonetisation drive to invest in the bonds.
- The money raised by the government will then be used to infuse fresh equity into banks.
- The government will follow a differential approach, based on their performance and potential, in injecting funds into the banks.
- PSBs that can lend effectively to the private sector will be given priority in fund infusion.

Will it affect Fiscal Deficit?

- Globally, the practice is to not include bonds in the fiscal deficit calculation. In India, we include it.
- The effect on the fiscal deficit will depend on the nature of the bonds and also how they are dealt with.
- The structure will be unveiled when we make the bonds public.

What has been the past experience?

- In the mid-nineties when, after PSBs had huge NPAs, the government of the day issued Special Bonds to PSBs to borrow money.
- It then used the money to acquire equity shares in the very same banks.
- Deposits held by PSBs were neatly morphed into equity capital, with no actual cash changing hands.

- Depositors didn't suffer because their bank had simply lent money to the Centre by way of Recap Bonds, at a fixed interest rate.
- PSBs were happy because they received interest on the bonds and also got capital.

What should be done?

- Bad loans due to indiscriminate lending are the core of the problem.
- Banking reforms should be done to prevent a repetition of such practices.

9.7 External Benchmark - Loan Pricing

Why in news?

An internal Study Group constituted by the RBI has recommended basing external benchmark for setting bank interest rates.

What are the drawbacks of current practise?

- The present loan pricing regime is based on marginal cost of fund based lending rate (MCLR).
- The Study Group has noted that MCLR is calculated based on banks' internal factors such as cost of funds.
- These internal factors are insensitive to changes in the policy interest rate or repo rate.
- Though MCLR includes repo rate, the effect of change in repo by RBI is not fully translated to the public.
- It has also been found that banks deviated from the specified methodologies for calculating the rates.
- Arbitrariness in calculating the MCLR and spreads charged over them has thus undermined the integrity of the interest rate setting process.

What are the suggested measures?

- **Benchmark** - The study group has cited some 13 possible options as external benchmarks for determining interest rates.
- The group has shortlisted 3 among these, one of which is to be selected by the RBI. Those are-
 1. T-Bill rate
 2. Certificates of Deposit (CD) rate
 3. RBI's policy repo rate
- It has been recommended that all floating rate loans extended beginning April 1, 2018 could be referenced to the selected external benchmark.
- Banks may be advised to facilitate existing loans to shift to new benchmark without any conversion fee or any other charges within one year of its introduction.
- **Duration** - It suggested that lending rates should be reset once every quarter, from the current practice of once a year.
- **Interest Rate Spread** - Also, the decision on the interest rate spread over the external benchmark should be left to the commercial judgment of banks.
- However, the spread fixed at the time of sanction of loans to all borrowers should remain fixed all through the term of the loan.

Quick Facts

Interest rate spread

- Spread refers to the difference in borrowing rates and lending rates of financial institutions.
- In other words it is the interest yield on earning assets such as a loan minus interest rates paid on borrowed funds.

T-Bill Rate

- Treasury Bills are government bonds or debt securities with maturity of less than a year.

- T-Bill Rates are determined by the central and used as a primary instrument for regulating money supply and raising funds.

Certificate of Deposit

- A certificate of deposit (CD) is a savings certificate with a fixed maturity date and specified fixed interest rate.
- A CD restricts access to the funds until the maturity date of the investment.

9.8 Nobel Prize for Economics 2017

Why in news?

Recently Richard.H.Thaler, an American received Nobel Prize for his behavioural Economic theory.

What are the bases of economic theories?

- Most economic theories are based on a certain set of assumptions without which it would be difficult to talk in a coherent fashion about any theory; these assumptions simplify the complex everyday reality.
- So an economic model could assume that economic agents have perfect information or that the transaction costs are zero.
- In a similar vein, one of the dominant assumptions has been about economic agents being rational.
- That is to say, they only act in self-interest, but often enough there are gaps between the behaviour as predicted by the model and as it is in reality.

What is the finding of Thaler?

- He has refined economic analysis by taking into account three psychological traits
- **Limited rationality** - It underlines that it is not realistic to assume that individuals could be completely rational and think of all possible effects of their choices.
- Thaler built on this insight to come up with his theory of mental accounting, which describes how people organise, formulate and evaluate financial decisions.
- For instance, this tendency to create separate mental accounts for day-to-day expenses and holiday expenditure explains why individuals might not dip into their long-term savings and instead use a credit card to tide over some imbalances in daily expenses.
- **Perceptions about fairness** - Full rationality assumption of traditional theories cannot explain behaviour when it deviates to accommodate an individual's sense of fairness.
- Through large experiments, Mr Thaler shown how people can set aside personal gain and concern themselves with questions of fairness.
- For instance, Consumers judge negatively a company which is seen to be unjustly raising prices in times of pressure.
- **Lack of self-control** - Actual human behaviour has shown that people may, contrary to notions of rationality, choose something that goes against their interest.
- For instance, a smoker who chooses to yield to an immediate temptation instead of favouring better health in the longer term.

Why Thaler's contribution is significant?

- His contribution goes to the very heart of economic modelling and has a profound impact on many areas of economic research.
- Since field of economics concerns itself with how human behaviour explains the deviations from the established theoretical model, it has wide-ranging impact.
- Studying the so-called "irrationalities" has implications for
 1. Financial behaviour - Something like unjustified market volatility
 2. Marketing - The "buy two get one free" schemes providing a sense of having gained.
 3. Public policy making - Wherein politicians "nudge" individuals towards a societal improvement.

9.9 Relaxed KYC

Why in news?

The Union Government has recently relaxed KYC norms for jewellery purchase.

What are KYC norms of jewellers?

- KYC means “Know Your Customer”, it is a process by which Jewellers obtain information about the identity and address of the customers.
- The KYC procedure is to be completed by the jewellers while customers buying gold.
- This process helps the government to ensure that unaccounted money is not used for purchasing gold.
- The Prevention of Money Laundering Act (PMLA) was amended in August 2017, making the citation of PAN and Aadhaar mandatory for jewellery purchases beyond the threshold of Rs 50,000 per transaction.

What are the relaxed norms?

- Recently government has decided to raise the exemption limit in the (PMLA) for jewellery purchases.
- Individuals can now purchase up to Rs 2 lakh worth of jewellery (four times the limit earlier) at a time without documentation.
- Industry associations reckon that the relaxation will lead to a pick-up of at least 20-25 per cent in volumes.
- Upcoming imports are expected to see a rebound to hit the 70-tonne mark.

What are the issues with this move?

- The current account deficit (CAD) has already risen to a four-year high of \$14.3 billion, or 2.4 per cent of gross domestic product.
- Gold imports have contributed to this gap and a surge in demand for the precious metal will not be healthy for the overall trade balance.
- This move will not only undermine the government’s bold agenda against black money but also put more pressure on the external account.
- Repeated purchases of jewellery at below the stipulated limit will also allow the conversion of large sums of unaccounted cash.
- Apart from making it easier to launder money, this relaxation may also have an adverse effect on external finances at a time when the current account is under some pressure.

9.10 The Financial and Deposit Insurance Bill, 2017

Why in news?

FRDI Bill was introduced in Parliament during Monsoon Session 2017.

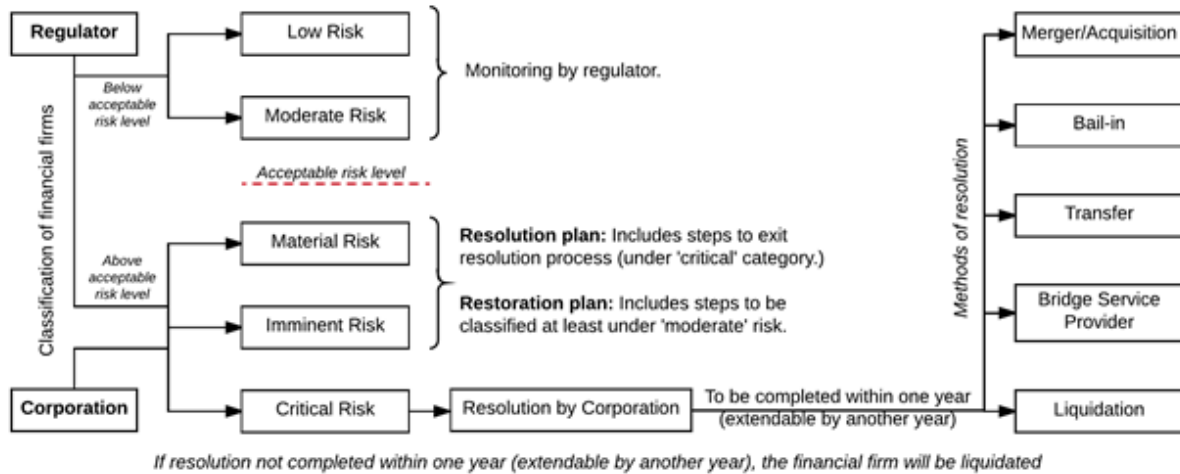
What are financial firms?

- Financial firms include banks, insurance companies, and stock exchanges, among others.
- Since they transact with each other, their failure may have an adverse impact on financial stability and result in consumers losing their deposits and investments.
- e.g In 2008, the failure of a Lehman Brothers impacted the financial system across the world.
- Currently, there is no specialised law to resolve financial firms.
- Provisions to resolve are found scattered across different laws.

What are the highlights of the bill?

- The Bill seeks to create a consolidated framework for the resolution of financial firms.
- It repeals the Deposit Insurance and Credit Guarantee Corporation Act, 1962 and amends 12 other laws.
- **Resolution Corporation** - The central government will establish a Resolution Corporation.
- The Corporation will have a Chairperson and its members will include representatives from the Finance Ministry, RBI, and SEBI, among others.

- The Corporation will-
 - Provide deposit insurance to banks
 - Classify service providers based on their risk, and
 - Undertake resolution of service providers in case of failure.
- It may also investigate the activities of service providers, or undertake search and seizure operations if provisions of the Bill are being contravened.
- Risk based classification** - The Corporation, in consultation with the respective regulators specify criteria for classifying service providers based on their risk of failure.



- A service provider categorised under the 'imminent' or 'critical' category will submit a restoration plan to the regulator, and a resolution plan to the Corporation. These plans will contain information, including: (i) details of assets and liabilities, (ii) steps to improve risk based categorisation, and (ii) information necessary for resolution of the service provider.
- Administration** - The Corporation will take over the management of the service provider from the date when it is classified as 'critical'.
- Resolution** - The resolution of a service provider classified under the 'critical' category can be done by using
 - Transfer of its assets and liabilities to another person,
 - Merger or acquisition, and
 - Creating a bridge financial,
 - Bail-in and
 - Liquidation
- Time limit** - The service provider will automatically be liquidated if its resolution is not completed within the maximum time period of two years.
- Liquidation and distribution of assets** - The Corporation will require the approval of the National Company Law Tribunal to liquidate the assets of a service provider.
- Offences** - The Bill specifies penalties for offences such as concealment of property, and destruction or falsification of evidence.

Does the Bill guarantee the repayment of bank deposits?

- Currently, the Deposit Insurance and Credit Guarantee Corporation (DICGC) provides deposit insurance for bank deposits up to 1 lakh rupees per depositor.
- The Bill proposes to subsume the functions of the DICGC under the Resolution Corporation.
- It will guarantee the repayment of a certain amount to each depositor in case the bank fails.

9.11 Reconstitution of EAC-PM

Why in news?

Union government has recently re-constituted the Economic Advisory Council to Prime Minister (EAC-PM)

What is significance of the reconstitution?

- EAC is an independent body to counsel the government, Prime Minister, on economic and related issues.
- It was suspended in 2014.
- Its re-constitution is a major signal that the government is aware of the state of the economy and is willing to seek professional help.
- Earlier one of the important task before EAC was to submit periodic reports to the Prime Minister on macroeconomic developments and issues with implications for economic policy.
- Unlike the previous EAC, now there are unlikely to be any regular reports taking stock of the economy and its growth outlook.
- EAC has decided to focus on ten priority areas to accelerate growth and job creation over the next six months.
- Its views are expected to help formulate the last full-year Budget.

EAC-PM

- It is a non-constitutional, non-permanent and independent body constituted to give economic advice to the GOI, specifically the Prime Minister.
- The PMEAC is chaired by a Chairperson and consists of eminent economists as members.
- There is no fixed definition on the exact number of members and staff of the EAC-PM.
- Its role would thus be different from that of the NITI Aayog, the latter's role will be to provide the bird's eye view, while the former will focus on providing "critical interventions" to accelerate economic growth and employment.

What are the projections about slowing Indian economy?

- **IMF** -International Monetary Fund stated that India's economic growth for 2017 and 2018 would be slower than earlier projections because of the lingering impact of demonetisation and the goods and services tax.
- The IMF projected India would grow at 6.7 per cent in 2017-18 and 7.4 per cent in 2018-19, which are 0.5 and 0.3 percentage points less than its projections earlier this year, respectively.
- **RBI** - Recently the Reserve Bank of India had cut back its forecast for gross value added to 6.7 per cent for the full financial year.
- **World Bank** -The World Bank, in its recently released South Asia Economic Focus, snipped off 20 basis points from its earlier estimate of 7.2 per cent for 2017-18.
- For 2018-19, the World Bank's estimate is lower than the IMF's at 7.3 per cent.
- **Other agencies** -The Asian Development Bank and the Organisation for Economic Cooperation and Development have also reduced their projection for India's economic growth.

9.12 Oil Companies - Pricing Policy

What is the issue?

The pricing policy adopted by oil companies for petrol and diesel needs review and they should be brought under GST at the earliest.

What is the need?

- While announcing a price cut recently, the Centre urged States to reduce their levies on the fuels (petrol and diesel).
- Despite some states making rate cuts, Bihar has appealed to the Centre to reduce the base price of petrol and diesel.
- It has pointed out that VAT on petrol and diesel in Bihar was among the lowest.
- This highlights the need for shifting the focus to the pricing policy followed by the oil companies for the two fuels.

What is the flaw in the pricing policy?

- **Change in policy** - Prices of petrol and diesel were deregulated in 2010 and 2014 respectively.
- Consequently, prices are market-determined i.e. by the forces of supply and demand rather than input costs.
- Since deregulation, the Public Sector Oil Marketing Companies (OMCs) are allowed to take appropriate decisions on petrol and diesel.
- From June 2017 dynamic daily pricing is being followed.
- Under this, the retail selling prices of petrol and diesel is revised daily, based on average international price and the currency exchange rate.
- **Flaw** - Despite the changes, oil companies still follow policies dating back to the controlled pricing era.
- According to this formula, retail prices are linked to imported landed cost and export parity price of the two fuels.

Trade Parity Price

- Trade Parity Price (TPP) is the weighted average of import parity price (IPP) and export parity price (EPP) with weights of 80 and 20 respectively.
- IPP is the price importers would pay in case of actual import at Indian ports, while EPP is the price oil companies would realise on export.
- In short, the pricing assumes that 80 per cent of the petrol and diesel is imported and 20 per cent is exported.
- Rather than showing the daily changes in the TPP and the rupee values, oil companies are adjusting price differences in the daily prices charged to dealers.

- This is despite the fact that petrol and diesel are not imported but refined within the country, with imported crude oil.
- This trade parity pricing being followed is unsuitable in the current free pricing regime.
- This only results in offering undue protection to domestic refineries.
- **Anomaly** - The prices of fuels refined from crude oil should be linked to the cost of crude plus the refining and transportation costs and margins.
- By this, ideally, coastal States and those with refineries in their vicinity should be paying a lower price.
- States in the hinterland where transportation costs involves should pay a higher price.
- However, this is not the case at present, due to unregulated pricing by companies.

What should be done?

- The Centre should get the oil companies to review their pricing strategies and align them with the free market approach.
- Besides, inclusion of petrol, diesel and other fuels under the GST would benefit oil companies and aid them in reforming the fuel pricing strategies.

9.13 Gold Option Contract

Why in news?

Recently Multi Commodity Exchange has introduced gold option contracts for the first time in India.

What are advantages of this?

- It allows investors to evade any volatility in the price of the metal, for a price.
- These options usually also turn out to be cheaper than binding future agreements
- It will help in the wider participation of investors in the realm of commodity speculation
- Gold options will also help bring into formal channels more of the gold that is traded.

Gold Option

- It is a derivative instrument, which allows investors to buy or sell gold bullion at a future date at a predetermined price.
- An option is similar to a futures contract in that the price, date and amount are pre-set for both.
- The main difference between the two is that a futures contract is an obligation, or promise, made by the investor to uphold the contract whereas an option is not obligation. This gives the impression that the amount is going unfairly into the oil companies' coffers.

- Options, like other financial derivatives, allow price risks to be transferred between market players in an efficient manner.
- The business of anticipating prices in the future is left to professional speculators while their clients benefit from the prospect of stable prices.
- These derivatives can facilitate the conduct of real economic activity in higher risk segments including in agriculture and industrial activity that would not happen otherwise.

What are the areas of concerns?

- Almost a decade ago, a rapid increase in food prices pushed the government to impose a blanket ban on any speculation on agricultural products.
- The wide-ranging nature of the move slowed the development of a healthy market for commodity speculation.
- The government is now rising similar temptation and focus on gold market, instead on real-time monitoring systems.

9.14 Protecting Small Gold Investments

Why in news?

- One of the leading Jewelleries in Chennai has officially declared a financial crunch and has sought more time to honour its gold schemes.
- This highlights that small savers need a safer alternative to the unregulated gold savings schemes.

What is the present scenario?

- A large part of population in India considers gold as a viable saving option.
- Instruments such as Gold Exchange Traded Funds (ETFs) or Sovereign Gold Bonds (SGBs) have failed to attract savers.
- Gold ETFs require the investor to own a demat account and be familiar with the workings of the stock market.
- SGBs also have long lock-in of 5-8 years.
- So these instruments are used mainly by informed investors.
- Instead, the unregulated Golden Deposit schemes offered by jewellers thrive, especially in the southern states.

What is the design of the scheme?

- Every month, the customer deposits a fixed instalment as small as 500 with the jeweller.
- After a stipulated time, deposits can be swapped for an equivalent value of gold jewellery, or roll it over for another year.
- There is no interest offered on these deposits.
- Customers are rather lured by freebies and discounts.
- These schemes are usually not registered, yet they are widely mistaken as 'gold deposits' or 'gold chits' with government backing.

What are the problems with the scheme?

- The unregulated nature of these schemes allows them to raise remarkable amounts without sticking to any end-use criteria.
- This makes them highly vulnerable to the fluctuations.
- Even jewellers with genuine intentions may be forced to default on payments during situations of customer panic.
- This is direct fallout of the non-maintenance of buffer funds which becomes mandatory in recognised financial instruments.
- Notably, jewelleries defaulting are also quite frequent which are then struck up in litigations and investigations.

- These schemes have proliferated mainly because they help in accumulating unaffordable gold through small investments.

What is the existing regulating framework?

- Section 45S of the RBI Act expressly bars unincorporated entities from accepting public deposits.
- Companies accepting such deposits are required to register themselves as NBFCs with the RBI.
- Post Saradha Scam, SEBI won exceptional powers to regulate Collective Investment Schemes that pool above Rs.100 crore.
- It has also issued multiple orders against Ponzi schemes promising astronomical returns from various investments.
- But gold savings schemes are out of the regulatory ambit of Ministry of corporate affairs, SEBI & RBI owing to technicalities.

How are regulations being circumvented?

- Either most schemes keeps less than 100 crore or aren't being reported to SEBI.
- Companies Act of 2013 tightened regulations and capped deposits at 25% of the company's networth and incorporated many other restrictions.
- But only large jewellers have reduced their saving schemes.
- So unregulated gold savings schemes continue to flourish.

What can be done?

- Strict regulations on jeweller sponsored saving scheme are obviously necessary.
- Reworking the government's SGB scheme to make it simpler and allow savers to invest in instalments can be considered.

9.15 SC Ruling on Taxing Foreign Companies

What is the issue?

- The Supreme Court has recently ruled that the income of two US companies in India cannot be taxed in India.
- This has again raised the demand for clarity on identifying and defining the nature of Permanent Establishments (PE).

What is the recent case?

- The case relates to two US-based companies, e-Fund Corporation (e-Fund Corp) and e-Fund IT Solutions Group Inc (e-Fund Inc).
- These companies have paid taxes on their global income in the US.
- e-Fund Corp is a holding company with almost a 100% stake in IDLX Corporation, another company based in the US.
- IDLX Holding BV holds a 100% stake in e-Funds International India Private Ltd.
- IDLX International BV is also a holding company having almost a 100% stake in e-Fund Inc.
- The revenue department has held that the income of e-Fund Corp and e-Fund Inc was attributable to India as the two assesses had a PE in India.
- This means that their income should be taxed in India, irrespective of whether they had paid taxes in the US.

Permanent Establishment
<ul style="list-style-type: none"> • A PE is a fixed place of business, wholly or partly carried out by a foreign enterprise operating in India. • It could be a branch office, a place of management, a factory, a warehouse, a workshop etc. • The concept of PE determines the taxability of a foreign company in India. • Usually, foreign companies get tax concession under Double Taxation Avoidance Treaties, and they pay taxes in their home countries. • But if they have PEs in India, they should pay taxes for the income they have created in India i.e. profits that are attributable to the PE.

- The Income Tax Appellate Tribunal (ITAT), Delhi, had upheld the position of the revenue department.
- But, the Delhi High Court had rejected both the revenue department's plea and the ITAT order.

What is the judgement?

- The Supreme Court has held that no part of the main business and revenue-earning activity was carried on through a fixed business place in India.
- The Indian company only rendered support services, which enabled the assesses, in turn, to offer services to their clients abroad.
- Thus the outsourcing of work to India by MNCs in itself would not give rise to a fixed place permanent establishment (PE).
- The High Court had also earlier said that a holding company or a subsidiary company by itself cannot constitute a PE.
- Consequently, the global income of these MNCs attributable to this back-office work cannot be taxed in India.
- The judgment will perceptibly have repercussions for taxing outsourcing businesses as well as subsidiaries of MNCs.

10. INFRASTRUCTURE

10.1 Mumbai Stampede

Why in news?

- A stampede in a narrow footbridge linking two railway stations in Mumbai has left at least 23 people dead and more than 30 injured.
- People, to take shelter from unexpected heavy rains, crammed into the narrow bridge, eventually leading to the stampede.

What is the policy flaw in this regard?

- The recent tragedy is evidential of the failure of civic policy to factor in the need for pedestrian access.
- It applies not just to stations but to the wider city of Mumbai and other cities in India as well.
- Mumbai's geography produces a distinct north-south commuting pattern from the periphery, as the business district is located at the southern end.
- As the financial capital, Mumbai depends mainly on the 300 km suburban railway system.
- This has some of the highest passenger densities, and yet has no single accountable manager.
- Also, over the past two decades, policy attention has been tilted towards road projects for wider roads and more flyovers.
- On the other hand, mass mobility systems and also facilities for walkers and cycle-users have not received similar attention.
- This skewed policy attention is one of the reasons for the recent disaster.

What are the drawbacks in urban planning?

- A major drawback is the absence of coordination among the many public organisations.
- As a result, various civic and infrastructure-related functions remain dissociated.
- Also, planning authorities prepare land use plans for a 20-year horizon.
- On the other hand, transformation is happening in the land use pattern in relation to the ongoing changes in economic activity at a faster pace.
- Resultantly, the planning process is not adaptive and flexible enough to respond to the changing land use and economic forces.

- Further, overlapping of functions and the jurisdictional confusion among metropolitan bodies undermine responsibility and accountability.

What should be done?

- **Mumbai** - A sound transport demands a management strategy that would consider mapping travel patterns.
- Further, shifting some institutions to areas in the wider Mumbai Metropolitan Region could be an option to diversify the crowd.
- Beyond Mumbai, the tragedy calls for a more focussed attention to the **urban public transport** in India.
- Reforming the archaic **transport planning and management** for urban India on a comprehensive scale is the need of the hour.
- Along with these, a range of measures should be undertaken with high priority. These include:
 1. Augmenting the creaking and broken infrastructure at suburban stations.
 2. Creating canopies to shield passengers, such as those crowding the staircase to escape the rain in Mumbai.
 3. Installing escalators and lifts.
 4. Providing exits on both sides of train coaches towards the street level wherever feasible.
 5. Creating multiple entry and exit points.
 6. Putting in place an organised feeder transport network to stations and bus termini.
- The Railway Minister has called for a quick survey of the suburban stations to identify areas of concern and this must now be extended to all cities.

10.2 Telecom Sector – IMG Recommendations

Why in news?

Inter-Ministerial Group (IMG) constituted for resolving the crisis in the telecom industry recently published its report.

What is the situation in the Telecom Sector?

- The industry has an outstanding loan of over Rs 4.6 lakh crore to various financial institutions.
- It has also deferred payment liabilities of about Rs3.1 lakh crore to the government.
- Also, as over Rs.9 lakh crore has been spent on capex, the industry needs around Rs 140,000 crore to merely survive.

What are the reasons?

- The reason for such high financial crisis in the sector is due to the exorbitant government levies.
- The old system of high-taxation which was followed when spectrum was given for free is continued even today.
- As a result, the share of revenue going to the government through licence/spectrum charges rose from 11% in FY07 to 32.4% in FY17.
- Also, TRAI's auctioning process that involved releasing only a small band of spectrum ensured that bids stayed exorbitantly high.
- Also, the reserve prices which are fixed based on the previous auctions wasn't sensitive to the existing market conditions.
- This made it harder for the telcos as they had to pay huge sums for voice spectrums similar to 4G, although demand was not supportive.

What are the IMG recommendations?

- Reserve price of spectrum may be modified to make it more reasonable and in line with international best practices.
- Automatic annual renewal of spectrum for existing telcos like in the US can be considered.
- This will prevent sky rocketing of spectrum prices due to irrational annual competitive bidding.

- Also, reducing the high annual license fee obligations needs to be considered.
- Although IMG studied the sector and made some suggestions, it has largely left it for the awaited 'New Telecom Policy' for making structural changes in levies.

10.3 Metro rail policy - A Game Changer

What is the issue?

- Union government announced a new Metro Rail Policy in August 2017.
- It is seen as a significant stand taken on PPP, technology, urban mobility.

What are the issues in metro rail projects?

- A metro system is a complex system, areas like fare collection, station management, maintenance, security and maximisation of non-operational revenues like real estate and advertising are tedious for the government.
- Metro rail is as expensive as the bullet train, the bullet train costs Rs 217 crore per km.
- For instance, Phase 3 of Delhi Metro cost around Rs 221 crore/km for the over ground stretch and Rs 552 crore/km for the underground stretch.
- With few exceptions, most metro development has been sponsored by the Union government and state governments often backed by supportive bilateral or multilateral development finance.
- With the increased pace of metro construction, continued public funding will be difficult to sustain, running them departmentally, like PSUs, may not be desirable.

Why metro rail policy is a game changer?

- **Private Partnership** - The policy explicitly recognises the need to have the private sector involved so as to tap private resources, expertise and entrepreneurship.
- Therefore, allowing for the private sector in a proactive manner brings in vision, energy, technology and funding.
- **Urban transit** - The policy recognises that the term "metro rail" is a catch-all, which in spirit seeks to capture the full spectrum of modern urban transport systems.
- The policy thus encompasses all forms stretching from BRTS (Bus Rapid Transit System) to tramways, light rail, metro rail and regional rail.
- **Alternative transportation** - The policy comes out best where it mandates an "alternative analysis" requiring a professional evaluation of the most suitable type of sustainable solution.
- This will see the over-emphasis on "metros" replaced with spiffier options like electric trolley buses and tramways.
- **Last mile connectivity** - The need for a comprehensive mobility solution is enshrined in the policy by its requirement of a Unified Metropolitan Transport Authority before a fresh scheme is cleared.
- **Tariff fixation** - The policy postulates an economic rate of return as distinct from a financial internal rate of return.
- The policy clearly recognises the need to keep populism at bay and insists on the setting up of a Permanent Fare Fixation Authority.
- **Financial participation** - The policy pushes the sponsor to look at creative ways of project financing through adoption of innovative mechanisms like value capture financing.
- The Central government has extended a participatory handshake to states.
- These include PPP with central assistance under the Viability Gap Funding scheme of the ministry of finance, grant by the government of India

10.4 Concerns with Saubhagya scheme

What is the issue?

- Pradhan Mantri Sahaj Bijli Har Ghar Yojana ("Saubhagya") launched in September.
- The policy has set a standard for itself without enough focus on its capacity to deliver results.

What is the scheme about?

- This new scheme is just a way of refurbishing the Deen Dayal Upadhyaya Gram Jyoti Yojana (DDUGJY).
- The earlier scheme of rural electrification launched in July 2015, which aimed to electrify all un-electrified villages by May 2018.
- The objective of the Saubhagya scheme is to provide energy access to all by last mile connectivity to achieve universal household electrification in the country.
- Saubhagya makes grandiose promises to provide a free electricity connection to all willing Below Poverty Line households.
- It claims to ensure electrification of all willing households in the country on a payment of Rs. 500, which shall be recovered by the power distribution companies in 10 instalments along with electricity bills.

What are practical difficulties with the scheme?

- **Payment of Bills** -It expects the poor to pay the bills without providing any subsidy to ease their burden.
- Expecting poor households to bear the recurring burden of bills as per the prevailing tariff of DISCOMs is unimaginable.
- The government has conveniently overlooked the fact that for the poor in some States, the inability to pay an electricity bill is a big impediment
- **Efficiency** -Even if 90% of households are electrified in villages, there is no promise of minimum hours of supply.
- There is a power shortage even at this moment leading to scheduled and unscheduled load shedding, often up to 10 hours or more.
- **Additional capability** - This scheme would potentially require an additional 28,000 MW and additional energy of about 80,000 million units per annum, which is roughly 7% of India's current installed power capacity.
- Considering these huge lapses managing this additional demand would prove to be challenging.

10.5 Bharatmala Project

Why in news?

The Union government recently launched Bharatmala project.

What can be positive outcomes of the project?

- It will subsume unfinished parts of National Highway Development Program (NHDP).
- National Highways Development Project (NHDP) to potentially generate 10 million jobs and result in a 3 per cent bump-up in the gross domestic product.
- In Bharatmala programme, the focus is on economic corridors (9,000 km) is expected to ensure that investments are targeted at economic returns.
- The ambitious project also plans to create new industrial corridors and urban centres, which should enhance economic activity in the country.

Bharatmala

- It is an umbrella project under the Ministry of Road Transport and Highways.
- Under the plan the government intends to develop 83,677 km of highways and roads at an investment of around Rs 7 lakh crore over the next five years.
- In the first phase, the plan is to construct 34,800 km of highways at a cost of Rs 5.35 lakh crore.
- It focuses on the new initiatives like development of Border and International connectivity roads, Coastal & port connectivity roads, improving efficiency of National Corridors, Economic corridors and others.

- Against the 300 districts that are linked to national highways at present, Bharatmala will connect 550 more to the national grid.
- The government also expects that 70-80 per cent of freight traffic will move on national highways, up from 40 per cent now.

What are the challenges?

- Earlier similar plans execution suffered due to problems of funding and delays in approval and execution.
- But typically, governments in the past have struggled with several operational issues such as land acquisition and other approvals.
- The big concern is funding, the plan depends more on government funding, and as much as 15 per cent of the total investment is expected from the private sector.
- Given the patchy record of public-private partnership schemes in India, there is no clarity on private sector investments.
- Big construction companies such as Larsen & Toubro, GMR and GVK have been missing from auctions for highway projects.

How the challenges can be addressed?

- To speed up the process of approvals, the government has already empowered National Highways Authority of India to approve all engineering, procurement and construction projects.
- To rope private sector in, the government need to draw a definitive road map for timely completion, fund mobilisation as well as streamline other bottlenecks in the form of land acquisition.
- To achieve dramatic changes, the government will have to improve its execution skills manifold by working closely with state governments.
- The plan should go a long way towards improving connectivity, not just to the coastal and border areas but to backward areas as well.

11. AGRICULTURE

11.1 Rising Dependence on Edible Oils Import

What is the issue?

- There is a rising dependence on imports for meeting the edible oils demand.
- The excessive reliance on external sources for an essential item of mass consumption is a risky fact.

How dependent are we?

- The dependence on imports for meeting the edible oils demand has gone up to 70%, since the early 1990s.
- This is projected to move up in the next.
- The bulk of imports are of palm oil and that too from just two countries, Malaysia and Indonesia.

What are the causes?

- This is largely a result of successive governments' policies favouring imports over home grown oils.
- Import duties on palm oil have been kept low enough to enable it to outdo indigenous oils.
- This has been so regardless of the fact that India can produce enough oilseeds to meet the local requirement.

What is the impact?

- **Domestic units** - Most of the units of edible oil industry were shut down.
- The remaining ones are also operating at below their capacities.
- Some of the units are surviving by mixing low-priced palm oil with superior indigenous oils and selling them.
- **Overdependence** – The risk of excessive reliance is that any disruption in supply can cause a huge upset in the Indian market.
- **Unrest** - The recent uprising of the Patidars (Patels) is partly due to this issue.

- They are predominantly groundnut growers in Gujarat and soybean farmers in Madhya Pradesh.
- The erosion of profitability of growing oilseeds due to the ill-advised policies is leading to unrest in the community.
- Besides, the mustard growers of Punjab and Haryana are also equally affected by this.

What should be done?

- **Oilseeds Technology Mission** – It was set up in 1986 when import dependence had risen to worrying levels.
- It involves -
 1. Promoting better technology and greater use of yield-enhancing inputs.
 2. Laying down an optimum band, within which local prices of oilseeds and edible oils can be allowed to fluctuate freely.
 3. Market interventions by government agencies only when prices tended to breach the limits to farmers' or consumers' disadvantage.
- India's oilseed output nearly doubled as a result of this plan by 1992-93. So this could now be considered.
- Indian oilseed researchers have developed **technologies** that can raise the average yield of these crops.
- ICAR has even identified **additional area**, mostly fallow land kept untilled after the kharif harvest, to be utilised for oilseeds.

11.2 India's Plan for Silk Production

Why in news?

The Union Government has recently pumped huge sum of money for silk production.

What is the significance of silk production in India?

- In India, about 97% of the raw mulberry silk is produced in the five Indian states of Karnataka, Andhra Pradesh, Tamil Nadu, West Bengal and Jammu and Kashmir.
- Mysore and North Bangalore, the upcoming site of a US\$20 million "Silk City", contribute to a majority of silk production.
- Another emerging silk producer is Tamil Nadu where mulberry cultivation is concentrated in Salem, Erode and Dharmapuri districts.
- Apart from this all four commercially exploited varieties of silk mulberry, Muga, Eri and Tasar are produced in the North East.
- This region contributes about 21 per cent of the total silk production in the country.

What is India's Plan on Silk production in north east?

- **Funding** -To counter China's growing silk production, the Government of India has pumped in Rs 690 crore in 24 districts in the North East region,
- Under North East Region Textile Promotion Scheme (NERTPS), 24 projects worth Rs 690 crore is being implemented in NE states
- In this plan six are in Assam, one in Sikkim, two each in Meghalaya and Manipur and the rest in other states.
- **Implementation**- The scheme is being implemented under two broad categories
 1. The Integrated Sericulture Development Project (ISDP)
 2. The Intensive Bivoltine Sericulture Development Project [IBSDP] covering Mulberry, Eri and Muga.
- **Awareness building** -Taking a cue from what the British did, the Centre has identified three districts in Meghalaya and an intensive awareness campaign will be launched to help draw back silkworm farmers to the trade.
- **Holistic planning** -The scheme is aimed at a holistic development of sericulture in all its spheres from plantation development to production of fabrics with value addition at every stage of production chain.

- It includes Mulberry production wherein nursery, land development, plantation, rearing tools, rearing house, irrigation for plantation, cocoon, product development, marketing and training for farmers.

11.3 Use of Unapproved GM Cotton

What is the issue?

Unrestrained cultivation of unapproved strains of genetically modified (GM) cotton in several states is a matter of grave concern.

What is unapproved GM cotton?

- Many local seed companies have reportedly been mixing out GM cotton seeds by incorporating some of the new genetic traits evolved by corporate seed researchers, without their consent.
- More than 3.5 million packets of illegitimate seeds of GM cotton were sold in the current season alone.
- Nearly one million cotton growers may already be using these seeds.

What can be the adverse impacts of this?

- In most cases, the illegal seeds carry the new generation gene combination that lends weedicide tolerance in addition to protection against pests (such as bollworms, which is the hallmark of the transgenic Bt-cotton).
- These attributes allow farmers to control weed by spraying herbicides rather than going in for cost-intensive manual or mechanical means of removing unwanted plants.
- If the unsolicited genes escape the host plants they can affect the innate genetic make-up of cultivated crops and wild flora.
- This can jeopardise the future of a potent gene-tailoring technology and several other biotechnology-dependent industrial sectors.

What is the response of the government in this regard?

- Due to lack of regulation behind cultivation of unapproved Bt-cotton there was no to check their multiplication, trade or cultivation.
- This matter has duly been brought to the notice of the authorities concerned, including the Genetic Engineering Appraisal Committee (GEAC).
- Only the Andhra Pradesh government has ordered an inspection of the fields growing unapproved GM cotton seeds.
- But this move has also come too late to allow any remedial action in this season.

11.4 Preventing Post Harvest Losses

What is the issue?

Despite India's considerable agricultural produce, the inadequacies in harvest and post-harvest stages lead to huge losses.

What are the concerns?

- India is one of the largest producers of over 80% of agricultural products, including some cash crops.
- Conversely, harvest and post-harvest losses are a constraint in reaping the full benefits of the produce.
- Post-harvest losses vary depending on crops, agricultural practices, climate, etc.
- However, inadequate storage and transportation facilities are primary reasons in most cases.
- **Storage** - Most harvested grains, fruits and vegetables are stored in traditional structures, made of grass, wood or mud.
- Lack of scientific design make them susceptible to pest attack and decay.
- Only 10-11% of fruits and vegetables cultivated in India use cold storage, due to the financial and infrastructural inadequacies.
- Resultantly, a bulk of stored commodities is lost to insect infestation, rotting and mould growth.

- **Financing** - Due to excess supply in the market immediately after harvest, farmers do not realise the best price.
- But to prevent storage loss, farmers are compelled to sell their produce immediately, within days of harvest, at any prevailing rate.
- **Transport** - Transferring goods from cultivation centres to processing centres or markets is another impediment.
- Inadequate transportation infrastructure lead to damage of commodities.
- Also, heat and humidity, in the absence of cold chain transportation, spoil the produce.

What should be done?

- **Storage** - Technology intervention is essential to improve the storage structures and logistics.
- Adequate cold chain and scientific storage infrastructure facilities are required.
- It prevents storage losses and facilitates funding of post-harvest activities.
- **Funding** - Warehousing receipts, from certified warehouses, can be used as collateral for funding from banks, etc as provided by Warehousing (Development and Regulation) Act of 2007.
- Access to funds can enable farmers meet the consumption and working capital requirements.
- They can also monitor market prices and sell their produce as per their preference, when prices reach profitable levels.
- **Transport** - Use of enclosed structures and cold chain transport facilities can reduce post-harvest losses due to transportation.
- Freshness of fruits and vegetables and seed viability can be ensured.
- In all, preventing post harvest losses can increase farmers' revenues and can also notably aid the food security initiatives.

11.5 Toxic Farming

What is the issue?

- Around ten farmers have reportedly died after spraying 'Profex Super' insecticide on Bt cotton plantations in Yavatmal district of Maharashtra.
- This has raised the demand for stronger regulation of insecticide sale and use in India.

Profex Super Insecticide

- It is a combination of Profenofos and Cypermethrin.
- Generally, when sprayed without covering the mouth and nose, it causes adverse skin reactions, burning sensation, dizziness, and headaches.
- So experts doubt it to be a cause for death as it is not very toxic generally.
- The tragic results could be due to faulty application.

What are the causes?

- **Guidance** - Cotton growers rely on high volumes of insecticides to prevent severe pest attacks.
- This is increasingly due to the pressure to protect the investments made.
- There is a lack of agricultural extension officers to advice farmers on the proper use of pesticides.
- Resultantly, they rely on the advice of unscrupulous agents and commercial outlets for pesticides use.
- Also, they do not take precautions such as wearing masks and covering themselves and checking the wind direction while spraying.
- **Regulation** - The system of regulation of insecticides in India is obsolete.
- Pesticides Management Bill introduced in 2008 studied by the Parliamentary Standing Committee is still pending.
- It is to be noted that agricultural products from India, including fruits and vegetables, have been subjected to import restrictions internationally for safety concerns.

- **Other causes** - The increasing intensity of pesticide use is suspected to be due to the loss of efficacy of some genetically modified cotton in warding off pests.

What should be done?

- Focus on pesticide regulation is as important as focus on growth in agricultural production and exports.
- Clearly, there is a need for a **high-level inquiry** into the nature of pesticides used across the country.
- A forward-looking **farm policy** would minimise the use of toxic chemicals.
- More importantly, the regulatory system should be enhanced.
- It is imperative that a **Central Pesticides Board** be formed to advise on the proper use and disposal of pesticides.
- This will strengthen the oversight of registration, distribution and sale of toxic chemicals.
- The Insecticides Act of 1968 should be updated and a new law should come in its place.
- This can eliminate the shortfalls in the current rules that govern enforcement and introduce penalties where there are none.
- Aligning the new pesticides regulatory framework with **food safety laws** and products used in health care will make it broad-based.
- Encouraging **organic methods** of farming where they are efficacious could benefit both the farmer and the consumer.

Pesticide Management Bill - 2008

- The bill seeks to improve the regulations in the manufacture, inspection, testing and distribution of pesticides.
- It proposes a system of licensing and also sets the criteria for classifying pesticides as misbranded, sub-standard, or spurious.
- Constituting a Central Pesticides Board to advise the government on pesticide related regulation is also among its provisions.
- Fixation of tolerance limits by FSSAI for pesticide residues on crops and commodities is touted to become mandatory.
- State governments are envisioned to implement the set-up.

11.6 MSP hikes for Wheat

Why in news?

The union government recently has announced a hike in the Minimum Support Price (MSP) for wheat.

What are practical difficulties with MSP?

- Despite the 12% hike in the MSP of five pulses in 2016-17 and the 40% rise in output, the prices dropped in most mandis.
- Price fell 8% and profit margins contracted 16%, the fall in profits was as much as 30%.
- The government did procure a record 1.6 million tonnes of pulses, but this was too small to make a difference.
- A mere 5-6% of farmers benefit from MSPs.
- The costs of the system are a huge burden.
- While MSP can increase output and also change cropping patterns, it cannot work wonders in isolation.

MSP

- Minimum Support Price is the price at which government purchases crops from the farmers.
- Commission for Agricultural Costs and Prices (CACP) recommends Government of India to fix MSP before sowing season.
- The objective of the MSP is to ensure remunerative prices to the growers, by encouraging higher investment and production.
- At present, the MSP covers 24 crops, which includes cereals, pulses, oilseeds, copra, raw cotton, raw jute and tobacco.

What alternative mechanisms can be followed?

- In the past, there was no other option to MSPs and FCI to deliver rations, now with Aadhaar the government can move to targeted cash payments.
- This can save upto Rs 38,000 crore every year.

- Farmers could also be given cash transfers per acre of holdings and this would make them more attuned to the market.
- Greater market access for farmers not just locally but also to markets overseas is also a better way to ensure they get a higher price for their produce.
- Easing rules to ensure organised retailers can purchase from the farm-gate will give farmers better realisations, and FDI in multi-brand retail is critical here.
- Extending the futures and options market to agricultural crops too would facilitate better price discovery.

11.7 WTO - Fisheries Subsidies

What is the issue?

- WTO is considering proposals on prohibiting certain fisheries subsidies in its upcoming Ministerial Conference in Buenos Aires, Argentina.
- However India and many developing countries are certainly concerned with this.

What are the concerns?

- An informal grouping of members called “Friends of Fish” demanded for curbing fisheries subsidies.
- The group included Argentina, Australia, Chile, Colombia, New Zealand, Norway, Iceland, Pakistan, Peru & US.
- They highlighted that subsidies to the fisheries sector have led to over-capacity and overfishing.
- Countries including Japan, South Korea and Chinese Taipei have expressed uncertainty over the link between subsidies and over-fishing.
- On the other hand, many developing countries such as India and Philippines seek flexibility in granting subsidies.
- India provides subsidies in the form of support for motorisation of fishing boats, fuel rebates and infrastructure support.
- Notably all of this fall under the targeted subsidies list at the WTO.

What is India's proposal?

- **Subsidies** - India has proposed the members to agree to apply prohibitions only outside territorial waters.
- This would leave the management of territorial waters to their respective national authorities.
- This provision is exceptional of the prohibition in cases of IUU (illegal, unreported, unregulated fishing).
- Such an arrangement would not disturb the benefit of subsidies offered to small scale fishers, and continue to protect subsistence and artisanal fishing.
- The proposal has generated a lot of interest from members including the ones pushing seriously for a prohibiting pact.
- **Over-fishing** - India has suggested a flexibility clause for the concern on over-fishing.
- Accordingly, when a fish stock is found to be over-fished, developing countries must be given some flexibility in terms of time period.
- Within a specified number of years, the country should withdraw the related subsidies.
- And this rule should only cover areas beyond the territorial waters.

12. SCIENCE & TECHNOLOGY

12.1 Prospects of BlockChain Technology

Why in news?

Andhra Pradesh government took steps to use blockchain technology for land titling.

What is blockchain technology?

- Blockchain technology uses disintermediation i.e the removal of intermediaries in exchange processes.
- It enables people to transact in a peer-to-peer fashion based on the trust provided by blockchain.

What are the problems with the existing method?

- **Record keeping** - At present, land ownership data is stored with the government in centralized ledgers.
- This means that the data can be accessed and modified only by the government.
- This is a problem because if this data is erroneously entered, lost or forged, the ledger will no longer represent the true ownership of assets.
- The poor in India do own things, but they don't have a way to represent their property and create capital.
- Without representations their assets are "dead capital".
- **Reliable information** - At present, trading an asset requires an enormous effort just to determine the basics of the transaction like the real owner, his right to transfer, reliability of claimants.
- That is why even the sale or lease of a house may involve cumbersome procedures.
- **Lawsuits** - Also, more than 66% of the civil cases are related to land or property.
- Not only is the judiciary overburdened, the poor litigants are also losing Rs.1,300 on average per day of court hearing.

How can blockchain technology help?

- The prosperity of Western nations can be traced to the security provided to property by the formal legal system.
- This can be achieved with the help of blockchain technology.
- Blockchain has the potential to link the asset, its size, location, use-restrictions, etc, to the owner unambiguously, and can all exchanges.
- It allows the government to maintain a public ledger of asset-ownership in a distributed fashion.
- The data is stored on a network of devices and there is no central point of failure.
- It ensures trust by being transparent as it is visible for everyone to verify.
- At the same time, it ensures privacy for the owner by ensuring that the ownership of the asset only changes hands after authorization.
- Also people who use goods and services and don't pay for them will be identified and charged interest penalties.
- Contract violations can be traced.
- Legal infractions can be more easily prosecuted.

12.2 Gravitational Waves - Nobel Prize for Physics

Why in news?

Rainer Weiss, Barry C. Barish's and Kip Thorne's were jointly awarded the Nobel Prize for physics for their contribution to the LIGO-VIRGO project and its detection of gravitational waves.

What is project about?

- **Research** - Laser Interferometer Gravitational Wave Observatory – LIGO was built in the US to detect gravitational waves.
- In collaboration with Italy based VIRGO observatory, LIGO detected gravitational waves for the first time in 2015.
- Since then, the LIGO-VIRGO collaboration has detected such signals four times.
- **Concept** - Gravitational waves are ripples in space.
- It is caused by cataclysmic events that result in high-energy explosions, such as collision of black holes or neutron stars.

- When these disturbances reach far-off regions, the signals become weak and require extremely sensitive detectors to sense them.
- **Significance** - The first detection made in 2015 revealed the merger of two black holes - 1.3 billion years ago.
- Hence, gravitational wave observations could unravel many more mysteries pertaining to the early days of the universe's existence.
- Gravitational wave astronomy is hence a science of the near future whereby black holes, neutron stars may be mapped.

How does the future look?

- The advantage of having multiple detectors is that the location of the source can be determined more accurately.
- More observatories are in the pipeline to add to the current 3 of which 2 belongs to LIGO & 1 to VIRGO.
- The Japanese KAGRA detector is set to go online in 2019 and LIGO India set to join by 2024.

12.3 Biological Clocks - Nobel Prize for Medicine

Why in news?

- Jeffrey C. Hall, Michael Rosbash & Michael W. Young are to be jointly awarded the 2017 "Nobel Prize for Medicine".
- The award is for their work in discovering the mechanisms controlling the internal clocks in living organisms.

What is their research about?

- The trio's work was in 'Chrono Biology' – A science that examines periodic phenomena in living organisms in relation to nature.
- They made significant contributions in unravelling the genetic coding and protein pathways that regulate the circadian rhythm.
- This rhythm is what tells us when it is time to eat, sleep or wake up - even when we have no bedside alarm.

What were the achievements of the trio?

- Isolation of a gene called '**Period**' in fruit-flies that disrupted its circadian clock was the most important achievement.
- **PER** – A protein named 'PER' that serves as a functional communicator for the 'Period Gene' was discovered.
- PER was found to accumulate at night & diminish during the day.
- **Timeless** – A second gene called 'Timeless' that acts through its 'TIM protein' in conjunction with 'PER' was also identified.
- This was found to cause the seesawing of cellular protein levels.
- **Doubletime** - A third gene called 'Doubletime' was discovered to be the regulator of the frequency of the oscillations.

What are the implications?

- The current research has added significantly to the science that studies the linkages between sleep & metabolic activity.
- The impact of smartphone & other gadgets in disrupting circadian rhythms is already being studied extensively.
- There is more clarity now, in the link between peak physical performance in sport and the time of the day.
- Circadian rhythm may well hold the key to future breakthroughs in the modulation and treatment of various diseases.

12.4 Validity of Nilavembu

What is the issue?

- Tamil Nadu with one of the worst dengue epidemics it has seen.
- As part of its response, the government is freely distributing a herbal concoction called nilavembukudineer.

What is nilavembu?

- One of the core ingredients of the niluvembukudineer is andrographispaniculata (AP).
- It is used in herbal medicine systems across South Asia.
- It is recommended for fevers under the ancient Siddha system of medicine.
- Even though there is no evidence of their efficacy, nilavembu along with other alternative remedies such as papaya-leaf juice and goat milk are used by many during epidemics.

Is it really effective?

- Some evidence exists for its potency against a range of illnesses.
- AP is known to inhibit the dengue virus in animal cells in a laboratory, and to reduce symptoms of respiratory tract infections in small human trials.
- But innumerable other herbal remedies also show such early promise.
- But only a tiny handful of these remedies go on to prove their efficacy in large-scale, placebo-controlled human trials.
- This is because the science of developing drugs from medicinal plants is complicated.
- Poly-herbal remedies like nilavembu are a mix of several compounds, while most of modern medicine relies on single-compounds.
- Plus, the amount of the active ingredient i.e the compound in a herb that acts against an illness, varies across plants.
- So drug makers have to find a way to identify this ingredient and test it in large-scale trials.
- This exercise requires not only massive financial investment but also intellectual honesty.

What are the risks?

- As the studies are limited, the possible side-effects are not known completely.
- At the best Nilavembu can only be a supplement.
- But it is possible that people will misconstrue a supplement for a cure.
- The risk of patients who need medical attention, such as those with dengue haemorrhagic fever, opting for this drug instead of rushing to a hospital should not be underestimated.

What should be done?

- While it is hard for government bodies to curb such practices, they must never endorse them.
- Unfortunately, too many attempts in India by the government to validate traditional medicine are driven less by honesty and more by blind faith.
- e.g Last year the CSIR launched an anti-diabetic herbal pill called BGR-34 on the strength of what appeared to be very poor evidence.

13. ENVIRONMENT

13.1 Firecracker Ban in NCR

Why in news?

Supreme Court recently reinstated the 2016 temporary ban on the sale of fireworks in Delhi-NCR.

What is the Chemistry of fireworks?

- Explosive fireworks depend on four primary ingredients — oxidiser, fuel, colouring agents & binder.
- The oxidisers release oxygen to allow the explosion to take place. Ex: Nitrates, chlorates.
- The fuel for burning is usually charcoal.

- Colouring agents like aluminium compounds are for brilliant whites, barium nitrate for greens.
- Binders are used to hold the mixture of the firework together in a paste while burning.
- Also, other metals like titanium & strontium are added to regulate the speed of the burning reaction.

What are the existing guidelines?

- Currently, guidelines exist for four types of explosive firecrackers — atom bombs, Chinese crackers, garland crackers and maroons.
- The guidelines for these were drawn up by PESO in 2008.
- According to these guidelines, the sulphur, nitrate & aluminium power contents must not exceed 20%, 57%, & 24% respectively.
- In July 2016 the SC ordered that no firecrackers shall contain antimony, lithium, mercury, arsenic and lead.

What are the criticisms against the judgment?

- **Judicial overreach** - Air quality related policy and its implementation are best left to the legislature and the executive.
- The courts should ideally be stepping in only when there is neglect.
- As the governments are already working to stop polluting practices, SC's intervention is seen as a problematic overstep.
- **Previous experience** - The 2015 verdict that banned stubble burning in Punjab has proven ineffective.
- The governments concerned still hesitate to implement the same due to their inability to get farmers on board.
- Only alternative approaches like making stubble itself a remunerative commodity have contributed to reduced burning, not the ban.
- **Rationality** - Much bigger factors like vehicular pollution, industries and unpaved roads factors contribute more to the disastrous air quality of Delhi.
- So the focus on fireworks alone seems disproportionate.

SC's previous views on cracker ban

- **2015 Verdict** - A case seeking ban crackers throughout India was filed.
- It highlighted the health hazards & environmental impact of crackers.
- But SC categorically refused to ban people from bursting firecrackers.
- The court felt that it might be "dangerous" to infringe into the common man's right to enjoy his religious festivities.
- Nevertheless, it ordered for time stipulations (10pm – 6am).
- **2016 verdict** - The 2016 case sought a cracker ban specific to Delhi NCR.
- The court imposed a ban in the wake of increased particulate matter concentration in the lower atmosphere above Delhi.

13.2 Wetlands Rules, 2017

Why in news?

The Ministry of Environment, Forests and Climate Change has recently notified the Wetlands Rules, 2017.

What are the notable provisions?

- **Definition** - Wetlands are defined as an area of marsh, fen, peatland or water.
- It could be natural or artificial, permanent or temporary, with water that is static or flowing, fresh, brackish or salt.

- It includes areas of marine water the depth of which at low tide does not exceed six metres.
- The rules apply to:
 - i. Wetlands categorised as “wetlands of international importance” under the Ramsar Convention.
 - ii. Wetlands as notified by the central and state governments and UT administration.
- **Management** - The new Rules farm out wetland management to states and union territories.
- The State or UT Wetlands Authority will have to prepare a list of all wetlands and a list of wetlands to be notified, within specified time.
- However, it is up to the states to decide which wetlands are to be notified.
- A comprehensive digital inventory of all wetlands is to be prepared within a year.
- **CWRA** - The new rules have done away with the earlier Central Wetlands Regulatory Authority (CWRA) entirely.
- CWRA has been replaced by the National Wetland Committee, which has a merely advisory role. These include -
 - i. advising the central government on proposals received from states/UTs for “omission of the prohibited activities”.
 - ii. prescribing norms and guidelines for integrated management of wetlands based on wise-use principle.
 - iii. recommending trans-boundary wetlands for notification.
 - iv. reviewing the progress of integrated management of Ramsar Convention sites.
- **Restrictions** - As per the new rules, encroachments on wetlands have been banned.
- It also prohibits solid waste dumping, discharge of untreated waste and effluents from industries and human settlements.
- It says that conservation and management would be based on the principle of ‘wise use’, which is to be determined by the Wetlands Authority.

What are the shortfalls?

- **Definition** - The 2010 Rules included in the definition of wetlands all inland waters such as lakes, reservoir, tanks, backwaters, lagoon, creeks, estuaries, etc.
- It also included man-made wetland and the zone of direct influence on wetlands.
- However, the 2017 Rules are not as comprehensive as this.
- It does not include river channels, paddy fields, human-made water bodies/tanks specifically for drinking water purposes, aquaculture, salt production, recreation and irrigation purposes.
- It also do not include wetlands under forest and coastal regulation zones..
- **Management** - There were lethargic response from states and UTs, in the past, on wetlands protection.
- So devolving management to states and UTs could be ineffective
- **Restrictions** - The term ‘wise use’ is subjective and could dilute the earlier restrictions.
- There is also no timeline specified for phasing out solid waste and untreated waste from being dumped into wetlands.
- The restrictions on “any other activity likely to have an adverse impact on the ecosystem of the wetland”, are not specified clearly in the Rules.
- **Appeal** – The older provision of appealing to the National Green Tribunal does not exist in the 2017 Rules.

13.3 Prediction errors of IMD

Why in news?

IMD has recently made an error in predicting the monsoon.

What is the recent error made by IMD?

- In April, the IMD had predicted “near normal” or 96% rains and then upgraded the figure to 98% a couple of months later
- But at the end of this monsoon there were “below normal” rains (that is, less than 96% of the 50-year long period average).
- A single number 96 or 95, has the power to brand rainfall as “near” or “below” normal.
- A 98% forecast implies a range from 94% to 102% and so could span “below normal” to “above normal”.
- The IMD continues to persevere with the meaningless practice of assigning an overall number to the quantum of rain expected during the monsoon.
- This exercise of Monsoon prediction was initially conceived as a measure to warn the government about a draught or weak rains.
- But now this has become just an exercise of numbers secured with statistical error margins to rationalise a wrong forecast.

IMD

- The India Meteorological Department (IMD), is an agency responsible for meteorological observations, weather forecasting and seismology.
- It works under the Ministry of Earth Sciences.
- It is headquartered in Pune with regional offices at Mumbai, Kolkata, Nagpur and Delhi.
- Long-Period Average (LPA) rainfall of India for the entire monsoon season is around 887 mm.
- IMD deems a season ‘normal’ if the all-India quantum of rain falls within a 10% range of the LPA.

What are the impacts of faulty prediction?

- Faulty predictions of intra-seasonal variation or forecasting a change in global weather can affect agricultural outputs and normal lives of the people.
- The outcome of focussing on quantitative numbers has ripple effects from policymakers to stock markets.
- This leads to dilemma for policy makers for addressing the farmers who seek localised, actionable inputs on sowing or harvesting decisions.
- Performance assessment of monsoon on agriculture and economy will be delayed due to the faulty prediction.

13.4 Contributors to Delhi Air Pollution

What is the issue?

- The union Ministry of Environment and Forests had published a white paper in 2003.
- It reported that in the time between 1970 & 2000, the contribution of vehicles to particulate matter in Delhi’s air rose from 23% to 72%.
- The four major government studies carried out since then have differed on the relative contribution of sources of particulate matter in Delhi’s air.

What are the findings?

- **IIT-Delhi, 2007** - The study was commissioned to specifically understand the contributions of vehicle of different types to vehicular air pollution.
- A key finding was that “tempo contribute maximum amount of concentration of NOx and PM (58%) followed by trucks (24.1%), buses (12%), cars/taxis (9.7%), small trucks (3.7%) and tractor, trailer (0.18%).”
- It concluded that “control on emissions of pollutants from vehicular traffic necessitates the control on the new registration of commercial diesel vehicles in Delhi”.
- **NEERI, Nagpur 2008** - The study was commissioned after the need for “better understanding” of air pollution sources was “recognised” in the Auto-Fuel Policy Document, 2002.
- The study identified road dust as the biggest contributor (52.5%) to particulate matter in Delhi’s air, followed by industries (22.1%).

- It attributed only 6.6% of particulate emissions to vehicles.
- For NO_x, the study found industries contributed 79% and vehicles 18%.
- Vehicles were the main source of CO and hydrocarbons: 59% and 50% respectively.
- **SAFAR, 2011** - System of Air quality Forecasting and Research (SAFAR) project was developed for air quality forecasting during the Commonwealth Games.
- The study reached the “surprising” conclusion that road dust from paved and unpaved roads contributed the largest share to air pollution (55%), followed by residential sources (15%), transport and vehicular pollution (13%), industrial sources (12%), and power (5%).
- Particulate pollution is a major problem for Delhi specially during winter and fire event festival and that the situation with regard to gaseous pollution (such as NO_x and sulphur oxides) was “reasonably better”.
- **IIT-Kanpur, 2016** The study carried out sampling during the winter of 2013-14 and the summer of 2014. It had five components: air quality measurements, emission inventory, air quality modelling, control options and an action plan.
- For PM_{2.5}, the source apportionment, according to the study, was: road dust (38%), vehicular pollution (20%), domestic sources (12%), industrial sources (11%), concrete batching (6%), hotels and restaurants (3%), municipal solid waste burning (3%), diesel gensets (2%), industrial area sources (2%), and cremation, aircraft and medical incinerators (1% each).
- For NO_x emissions, industrial point sources (52%) and vehicles (36%) were the biggest contributors, followed by diesel gensets (6%), the study found.

13.5 River Linking Plan Challenges

What is the issue?

- Union government is planning for a large scale river linking plan.
- Several issues must be sorted out first before the plan is taken up.

What is the river linking plan about?

- The Union government is all set to begin work on an estimated \$87 billion plan to connect around 60 of India’s largest rivers.
- Work is now set to link the Betwa and Ken rivers which pass through Uttar Pradesh and Madhya Pradesh
- Once complete, it is expected to help end farmers’ dependence on fickle monsoon rains, bring millions of hectares of cultivable land under irrigation.
- It will also help generate thousands of megawatts of electricity.

What are the challenges for the project?

- **Constitutional Mandate** - Water is listed as entry 17 in List II of the Seventh Schedule of the Constitution.
- While the government has initiated discussions to bring the subject under the concurrent list, it may not be an easy task to achieve.
- If there are changes in the political dispensation in various States, the government in a State that is upstream may refuse to share water with downstream States.
- **Water resource accounts** - This will provide an accounting framework that enables the integration of specialised physical resource sector data with other information on the economics of water supply.
- India is technically poor with respect to data related to the water sector.
- Unlike other countries, the Central Statistics Office has neither attempted nor funded studies to gather data on water tables at an all-India or State level.
- The absence of a well-informed water policy reflects a knowledge governance gap.
- **Agricultural commitment**- There is a dearth of studies in the Indian context unlike other countries addressing the water resource gap by analysing water flows embodied in agriculture products.
- At a subnational scale, Virtual Water flows are not consistent with relative water scarcity.

What needs to be done?

- The government should pay more attention to its 'more crop per drop' mission, and to what extent Indian agriculture follows this practice.
- Water resource accounting makes it possible to capture direct, indirect and induced water demand in the process of economic production.
- It needs to be carried out at all the major crops at subnational levels is a must for efficient planning of a scarce resource such as water.
- A full-fledged architecture to solve water sharing disputes between states is needed.

13.6 Ecological Impact of Coal Transportation - Goa

What is the issue?

- Ideas for reducing the ecological footprint of coal are majorly focused at the mines level.
- Pollution caused by the transport of coal hasn't got the deserved attention.

What is Goa's case?

- Coal is mainly imported into India at Marmugoa port (Goa) from Australia, Indonesia and South Africa.
- Goa Pollution Control Board's 2015-16 report, states that the PM10 reading of Mormugao port exceeded permissible limits.
- Official records also show that coal in excess of permissible limits is being handled at the Mormugao port.
- This coal is mainly used up in steel plants of Karnataka and transport happens by road or rail.
- 34,200 tonnes of coal is transported each day through the rail route from the Marmugoa to various destinations in Karnataka.
- The nearly 400-km journey of this fossil fuel has been found to have profound ecological impacts and is risking habitations.
- Coal dust has also pushed up incidents of respiratory disorder and is threatening fragile forests, paddy fields, streams and rivers.

What is the way ahead?

- There have been various regulatory lapses and violations in coal imports at Marmugoa Port, which needs to be addressed.
- This acquires greater urgency given that Marmugoa port plans to more than double its coal imports by 2030.
- Environmental audits have blamed the transport of coal for the high pollution levels in coal-rich Jharkhand and Maharashtra too.
- Although government has been emphasising on renewable coal is expected to hold primacy for the foreseeable future (60% by 2022).
- It is hence imperative to evolve a comprehensive policy to ensure that coal is transported in environmentally sensitive ways.

14. INTERNAL SECURITY

14.1 Police Reforms

What is the issue?

- The Supreme Court issued directives for police reforms in 2006
- Strong public opinion is needed to push for its implementation.

How did these proposals come up?

- A writ seeking police reforms was filed in the SC in 1996.

- In that regard, the court issued several directives in 2006.
- The Indian Police Foundation was inaugurated in 2015 to mount pressure on state governments to implement these changes.
- Despite all this, States thus far have taken only few grudging steps.

Why reform is needed?

- **Politicising** - Political authorities have a stronghold over police.
- So, the trust ability of the force among the public has reduced.
- This has led to frequent demand for CBI probe into crimes which can be handled by the state police.
- **CBI** – Even the CBI is not free off political control.
- A few years back, the Supreme Court had called CBI a “caged parrot” with little autonomy.
- Hence, in recent times, the demand for a CBI probe is usually accompanied by a request for Supreme Court monitoring the same.
- **Lokpal** - The problem would have considerably subsided if the ‘Lokpal law’ had been implemented.
- The Lokpal would have had the powers to oversee the CBI’s work and ensure its independence.
- Presently, vested interests across the political spectrum have succeeded in keep the institution of Lokpal in dormancy.

What are the recent measures?

- An umbrella scheme for ‘Modernisation of Police Forces’ has been proposed.
- Over the next 3 years, centre plans to contribute Rs.18,600 crores which is 75% of total & the states will pitch in the rest.
- These funds will be used for enhancing weaponry of the forces along with transport, communications and forensic support among others.
- Under the scheme, Jammu & Kashmir, the North-eastern States and those affected by Maoist violence are to receive special focus.

Does increased weaponry mean better policing?

- While, Naxal violence is on the decline since 2013 but a 122% increase in violent neutralisation of ‘Maoist’ has been reported.
- Maoist arrests & arms recoveries have also increased, indicating that leftist unrest is still strong.
- Whether further militarising of police could address the problem hasn’t been thought through.
- The executive has been viewing encounters as a legitimate crime-fighting strategy, despite Supreme Court directives against it.
- There is a glaringly opacity in accounting for deaths caused by police action.

How effective has fund utilisation been?

- Notably, only 14% of modernisation funds were spent in 2015-16.
- Underutilisation of existing funds and the state’s capacity to absorb huge funds needs to be studied.
- The Union Home ministry has mandated every state to furnish an utilisation certificate for modernisation funds annually.
- Finance Ministry has stressed that unless previously sanctioned funds are completely used subsequent funding will not be released.

What are the structural issues?

- It has been 11 years since the SC directives on police reforms that focused on establishing accountability.
- While both the centre & states embrace big-ticket technical and infrastructural advancement, they still squarely snub demands greater checks and balances.

- Only few States provide security of tenure to their police chief and key field officers.
- Independent short listing of candidates for posting is also rarely done & DGPs are usually handpicked by CMs.
- Adjudicating members on “police complaints bodies” are mostly taken by force itself, disregarding conflict of interest.

14.2 Enhancing India's Maritime Capabilities

What is the issue?

- The Indian Ocean Region (IOR) has long been significant and struggle for power in the region is gaining importance.
- In this context, India must assess its maritime capabilities and respond with appropriate decisions.

How are the power equations changing in the IOR?

- Control over the sea lanes of commerce played a very important part in earlier colonial years.
- But this had started dwindling in later years, as colonisation began to give way.
- **US** - The United States gradually took over the dominant roles in the IOR.
- For the last 50 years, it has been the only nation with credible maritime power in the region.
- Until two decades ago, even India was content to let the US act as the net security provider in the IOR.
- **China** - Having become a major importer of energy from this region, China is also now seeking an IOR presence.
- Towards this end, its ships and submarines have started making presence in these waters frequently.
- While facilities such as refuelling and the like are available at most ports, these cannot equal the support that a base could offer.
- So, China is seeking to set up facilities at Gwadar (Pakistan) and Djibouti (in the Horn of Africa), which could support 10,000 personnel each.
- While none of them can be said to be bases, they will give China the IOR credibility that it could otherwise not have.
- **India** - The Indian Ocean Region holds a key to India's security interests.
- Operating facilities in Indo-Pacific countries are essential for increasing India's naval reach.
- It is also essential for making India a credible maritime power.

How does the future look?

- Countries are increasingly seeing support stations as vital for any meaningful operations at sea.
- These are places where forces could be positioned, replenished and deployed for reasonably long durations.
- Looked at holistically, in addition to the US, only China and India seem to hold considerable prospects to have some IOR capabilities.
- China does have a good number of seagoing platforms, but presently not have the bases to enable their sustained operations.
- On the other hand, India, with its regional presence, has the infrastructure but not the numbers.

What lies before India?

- **China** - A hostile presence, especially of the Chinese, can put India's assets under great threat.
- Contrarily, India can interdict Chinese supply lines, if needed, provided such capabilities are created.
- India must therefore work on this line.
- **Indo-Pacific** - India must also focus on mutually compatible engagement of the principal Indo-Pacific littorals.
- These include, apart from the US, Japan and Australia many other less focussed countries which include -

- i. South Africa and Mozambique which sit astride the southern routes.
 - ii. Mauritius and Seychelles, which guard the approaches to the northern waters.
 - iii. Countries of the Gulf region.
 - iv. Immediate neighbours such as Sri Lanka and Maldives.
- While bases at these places might not be feasible, operating facilities which enhance reach and endurance are needed.
 - **Besides**, India must make up the deficiencies, especially of submarines, whose numbers have fallen considerably.
 - Ships which can transport desired forces across the seas are also important.
 - Above all, the decision-making processes should be speeded up to enhance appropriately our maritime capabilities.

14.3 Jammu & Kashmir Dialogue

Why in news?

The Union government recently appointed Dineshwar Sharma as an interlocutor to negotiate with all sections of the society.

What is the current situation?

- Kashmir is in political turmoil since the death of former Chief Minister Mufti Mohammad Sayeed in 2016.
- The killing of Hizbul Mujahedeen commander Burhan Wani saw stone-pelting protesters taking to the streets in big numbers.
- Indiscriminate use of pellet guns by security forces to dispel protesters also added fuel to the resentment.
- The popularity of slain militants has only grown over the months and militant attacks on Kashmiri policemen has spiked.
- With regular ceasefire breaches by Pakistan on the border, the gains of the 2003 Ceasefire deal have effectively vanished.
- Intelligence estimates hold that more than 200 youth have taken to militancy since 2013.
- The recent events of mysterious “braid-chopping” and the protests in the aftermath only complicate matters.

What lies ahead?

- **Hope** - Dialogue is vital for suppressing hardliners and enabling a genuinely conciliatory environment.
- The beginning of negotiations will also increase the legitimacy of the CM and contribute to better governance.
- **Strategy** - More clarity is needed from the Centre on amount of freedom available to Mr. Sharma for the negotiations.
- Awareness that the recent NIA raids and other actions against separatists could influence any outreach is needed.
- The interlocutor will have to consciously broad base his schedule significantly to win the interest of civil society in the Valley.

14.4 Cariappa Principles for Kashmir

What is the issue?

- Some commanders in Kashmir asserted to violence during the recent turmoil.
- The people of Kashmir feel this attitude has been encouraged after a Major was awarded for using a civilian as a “human shield”.

What was Field Marshal Cariappa’s policy?

- **Supportive gestures** - Once, after chasing the raiders beyond Uri, Cariappa was stopped by a group of people at Baramulla.

- They had suffered a lot due to the absence of food supplies.
- He fulfilled his assurance the next day when he visited the old town and distributed flour, rice and salt to the neediest families.
- He followed this gesture in many ways in various parts of Kashmir.
- Respecting the local traditions - In 1945, he was posted as commander of the Bannu Frontier Brigade in Waziristan.
- Having served in the NWFP as a young officer, Cariappa was conversant with the terrain as well as the habits of the Pathan tribesmen who lived in the area.
- He had seen that the British policy of trying to keep them under control by force had not succeeded and he resolved to try a different method.
- He decided to win the hearts and minds of the tribesmen by extending a hand of friendship.
- He knew that they were warm and hospitable if treated with respect and as equals.
- **Involving the community** - When he found out that Pathan women of Bannu had to fetch water daily from another village, four miles away, he immediately ordered a well to be dug near their own village.
- So when Jawaharlal Nehru visited Bannu in 1945 as head of the Interim Government, Cariappa organised a public meeting which was attended by all tribal leaders.
- When Nehru visited Razmak where another brigade was stationed, Nehru was fired upon.
- **Fairness** - In 1946, he was appointed Presiding Officer of one of the General Court Martials constituted to try members of the Indian National Army (INA).
- Cariappa visited some of the detention camps and wrote to the Adjutant General, requesting him to expedite the trials.
- He also recommended that Shah Nawaz Khan, G.S. Dhillon and P.K. Sehgal should be pardoned.
- However when as Chief of the Armed Forces he was to consider the same people for admitting into INA, he refused to take them, particularly for the reason that they would bring politics into the Army.
- He was a very tough general when it came to leading the armed forces, but he never compromised his principles.

PRELIM BITS CONSOLIDATION

ART AND CULTURE

Thumri

- It is a musical form like dhrupad, khayal in Hindustani Classical Music.
- It is termed as 'semi' or 'light' classical and is very lyrical in its structure and presentation.
- The musical grammar is not strictly adhered to and is based on less-weighty or mixed ragas.
- This musical form exists in both its vocal and instrumental forms.
- The themes are predominantly romantic, particularly focussing on the separation of lovers and the pranks of Lord Krishna as a playful lover.

Other Musical Forms in Hindustani

- **Dhrupad** – It emphasis more on strict adherence to raga and systematized arrangement of musical parts.
- It usually covers themes such as religion, philosophy, devotion and praise of deities, patrons, and celebration of seasons.
- **Khayal** – The word “khayal” means imagination or conception.
- It is more lyrical than Dhrupad and its form is free in adherence to strict ragas.
- It covers diverse topics such as divine love, separation of lovers, seasons, and praise of kings, patrons and the pranks of Lord Krishna.

GEOGRAPHY

Grand Renaissance Dam

- It is a gravity dam on the **Blue Nile River** in Ethiopia.
- It has been under construction since 2011 and likely to be finalized late 2017 or early 2018.
- It is the first major dam on the Blue Nile and will be the largest hydroelectric power plant in Africa as well as the 7th largest in the world.

World's longest Tunnel

- China plans to build a 1000 km-long tunnel, the world's longest one, to divert water from the **Brahmaputra River**.
- The plan involves diverting water from Sangricounty in Tibet to the Taklamakan desert in Xinjiang.
- This plan might most likely affect the water flow in the Brahmaputra that could cause droughts.
- The Brahmaputra, called the Yarlung Tsangpo in China, originates in Tibet and flows downstream into India's northeast.
- In 2010, China had assured that it had no plans of building dams in Tibet after India expressed concerns.

Typhoon Lan

- Typhoon Lan, known in the Philippines as **Typhoon Paolo** was the second largest tropical cyclone in terms of a gale diameter on record.
- It is the most intense of the Northwest Pacific Ocean in 2017.
- It made a landfall in Japan as a category 2 equivalent typhoon.
- **Gale** - The most common way of measuring winds is with the Beaufort scale, which defines a gale as wind from 50 to 102 km/h.
- It is an empirical measure for describing wind speed based mainly on observed sea conditions.



World's First Floating Wind Farm

- The world's first floating offshore wind farm started delivering electricity to the grid in the north of Scotland.
- The **Hywind project**, built by Norwegian Oil Company has five turbines floating 25 kilometres (16 miles) off the coast of Peterhead, Scotland.
- The project has a capacity of 30 megawatts and has turbines taller than Britain's "Big Ben".

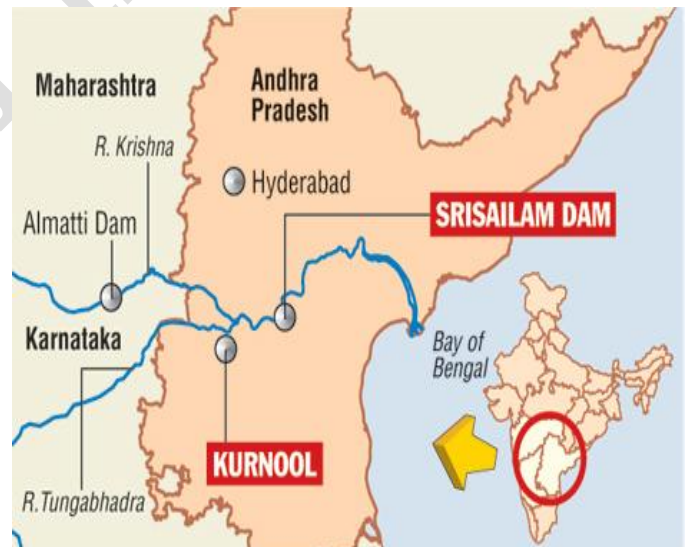
RORO Ferry Service



- PM has recently inaugurated the first phase of the 'roll-on-roll-off' (RORO) ferry service between Ghogha in Saurashtra and Dahej in south Gujarat in the Gulf of Khambhat region.
- This is the first of its kind world class RORO ferry service project for passengers in South Asia.
- 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.
- The project will reduce travel time of 8 hours to 1 hour only.
- It will reduce a distance of 360 kms by road to 31 kms only by sea.

Srisaïlam Reservoir

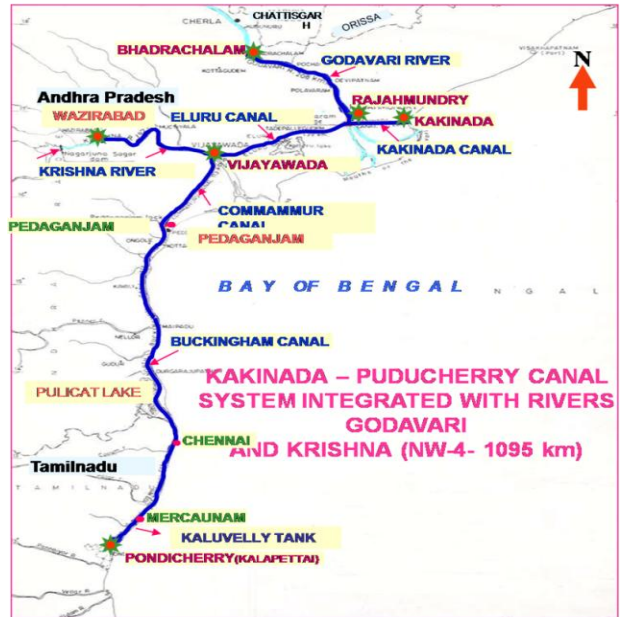
- The Srisaïlam dam is constructed across the Krishna River in Andhra Pradesh.
- Andhra Pradesh and Telangana have been at loggerheads about release of water from the reservoir to irrigation schemes.
- Consequently, the Krishna River Management Board (KRMB), an autonomous board was constituted.
- It regulated the drawing of water from common irrigation projects Srisaïlam and Nagarjuna Sagar.
- Nagarjuna Sagar Dam was also built across the Krishna River where the river forms the boundary between AP and Telangana.



National Waterway – 4

- National waterway – 4 connects the state of Andhra Pradesh, Telangana, Tamil Nadu and the Union Territory of Puducherry.
- It runs along Krishna, Godavari Rivers and Commanur, Buckingham Canals along the Coromandal Coast.
- It is proposed to be developed in three phases.

- **Phase-I:** Muktyala to Vijayawada (Krishna River)
- **Phase-II:** Vijayawada to Kakinada (Eluru canal & Kakinada canal) and Rajahmundry to Polavaram stretch of Godavari
- **Phase-III:** Commamur Canal, Buckingham canal and balance stretches of Krishna & Godavari Rivers.



Kaleshwaram Project

- NGT has recently ordered an interim stay on Telangana government's Kaleshwaram lift irrigation project.
- Pranahitha-Chevella Lift Irrigation Scheme was taken up in 2007 to utilise the water of Pranhita tributary of Godavari River.
- After the formation of Telangana, the project was redesigned into two sections.
- The original component serving the Adilabad area was called the Pranahitha project.
- The second part is called Kaleswaram Project serving the Karimnagar, Warangal, Nizamabad and Medak districts.
- Water from Godavari River after the confluence by the Pranahita tributary is lifted to provide lift irrigation facility.
- Lift Irrigation project - Pumps are used to lift the water from canals or rivers at lower level to the area at higher level for irrigation purpose.

POLITY

Article 32

- West Bengal Government has recently approached the Supreme Court against the centre's move to make Aadhar mandatory for availing benefits of welfare schemes.
- The State had filed this writ petition under Article 32 of the constitution.
- Article 32 of the constitution confers citizens the right to approach the Supreme Court for enforcement of their fundamental rights.
- The Supreme Court shall have power to issue directions or orders or writs.
- In this case, SC does not take up the petition of West Bengal government saying the Article 32 can only be used by individuals to approach the SC against State actions which violate their fundamental rights.
- SC added that the Article cannot be agitated by a state against the centre or vice versa.

Commission to Examine Sub Categorization of OBC

- The President has appointed a Commission to examine the sub-categorisation of Other Backward Classes.
- The commission is formed in exercise of the powers conferred to the President under the **Article 340** of the Constitution.
- The five-member panel will be headed by retired Chief Justice of the Delhi High Court G. Rohini.
- Sub-categorisation of OBC is done to ensure that the more backward among the communities can access the benefits of reservation.
- The terms of reference of the commission are

- i. Examine the extent of inequitable distribution of benefits of reservation among the castes or communities included in the broad category of OBC.
 - ii. To work out the mechanism for sub- categorisation of OBC with reference to such classes included in the Central list.
- **Article 340** - Appointment of a Commission to investigate the conditions of backward classes.

Pro bono legal services

- Ministry of Law and Justice introduced the pro bono legal services scheme aiming to connect those in need of legal aid with lawyers through use of technology.
- ‘Pro-bono legal services’ – It is a web based platform through which the interested lawyers can register themselves to volunteer services for litigants who are unable to afford it.
- Supreme Court has recently released the guidelines, which says that a lawyer should have fought a certain number of cases pro bono (free of cost) in order to be designated as a senior lawyer.
- The government wants the same principle to be followed in the appointment of judges.

Removal of Election Commissioners

- A petition was filed in the Supreme Court pointing out the vagueness in the procedure for removal of Election Commissioners (EC).
- Petitioner has alleged that discrimination in removal of EC and CEC will create ambiguity and affects the autonomy of the office.

SOCIAL JUSTICE

ODF Status in India

- All **cities and towns** in Madhya Pradesh, Maharashtra, Chattisgarh, Jharkhand and Haryana became ‘Open Defecation Free’ as the Swachh Bharat Mission (SBM) completed three years.
- Gujarat and Andhra Pradesh had already declared all cities and towns ODF.
- Chandigarh is the only UT to have become ODF under Swachh Bharat Abhiyan (Urban).
- **ODF Rural** - Rural Gujarat has been declared as ODF, marking the completion of three years of Swachh Bharat Mission (Gramin).
- The state joined the league of Sikkim, Himachal Pradesh, Kerala, Uttarakhand and Haryana, which were the first 5 states to be declared ODF rural states.
- SBM (Gramin) is implemented by Ministry of Drinking Water and Sanitation and SBM (Urban) is implemented by Ministry of Urban development.

GOVERNMENT POLICIES AND INTERVENTIONS

ParyatanParv

- The programme was organised by the Ministry of Tourism from 5th to 25th October 2017.
- The objectives of the programme are focussing on the benefits of tourism, showcasing the cultural diversity of the country and reinforcing the principle of “Tourism for All”.
- It was inaugurated at the Humayun’s Tomb, Delhi.

Election Commission

- Election commission of India, a constitutional body is headed by a Chief Election Commissioner (CEC) and two Election Commissioners.
- They are appointed by the President of India on the recommendation of PM and Council of Ministers.
- CEC and EC have tenure of six years or hold office till the age of 65 years and receive salary and other allowances similar to the Judge of the Supreme Court of India.
- Though they are appointed in a similar manner with equal tenure and salary, their removal process varies.
- According to the Article 324 (5), CEC can be removed only by the order of the President, just like a judge of the Supreme Court.
- But the provision is silent about the procedure for the removal of EC and only provides that ECs cannot be removed except on the recommendation of CEC.

- The “Adopt a Heritage” project launched by the Ministry of Tourism will be implemented at key sites during this period.

'Udyami Mitra' portal

- Small Industries Development Bank of India (SIDBI) has revamped its Udyami Mitra with enhanced features.
- The portal was launched to improve accessibility of credit for the MSMEs.
- It helps MSMEs for submission of loan applications which can be picked up by multiple lenders.
- It aims at bringing in transparency in processing of loans by the banks.
- Now non-banking finance companies and small finance banks are being on-boarded on the platform for enhancing flow of credit to MSMEs.
- Under the new capitalisation plan banks will have to compete for loans through the revamped udyamimitra portal.

Project CHAMAN

- It is a pioneer project to provide strategic **development to the horticulture sector**, so as to increase farmers' income.
- This project is being implemented by National Crop Forecast Centre (MNCFC) using remote sensing technology and is likely to be completed in March 2018 in all the states.
- The Geo-Spatial Studies like crop intensification, orchard rejuvenation and aqua-horticulture are deployed for preparing reliable estimates of crop production.

FDDI

- Footwear Design & Development Institute (FDDI) has been declared an 'Institute of National Importance' under Ministry of Commerce & Industry.
- INI is a status conferred to a premier public higher education institution in India by an Act of Parliament.
- FDDI, after becoming an INI, has the autonomy to design its courses as per the requirement of the industry and award its own degree.
- It can now independently develop and conduct courses leading to graduate and post graduate degrees, doctoral and post-doctoral courses and research.
- All INIs receive special recognition and funding.
- All IITs, NITs, AIIMS, School of Planning and Architecture and Indian Institutes of Science Education and Research are considered Institutes of National Importance.

Mission Bhagiratha

- It is being implemented in the State of Telangana to ensure safe and sustainable piped drinking water supply from surface water sources.
- It is aimed at providing tap connection to every household, the surface water sources being Krishna and Godavari Basin.
- Water will also be provided to Industrial requirements.
- There is also a plan to install optical fibre pipelines using the extensive water pipeline network being laid under the mission in an aim to save large amount of funds in installing OFC networks.

Nirmal Ganga Sahbhagita

- Nirmal Ganga Sahbhagita is an initiative of Ministry of water resources.
- It is mainly to assist the Urban Local Bodies (ULBs) located on the banks of the river Ganga for achieving the objective of Clean Ganga.
- It aims at sensitizing the ULBs about the pollution arising primarily due to dumping of solid waste in the river and involving them in stoppage of such dumping.

SAATHI Initiative

- SAATHI (Sustainable and Accelerated Adoption of efficient Textile technologies to Help small Industries) is a new initiative by Ministry of Power and Textiles.
- Under this, a public sector entity Energy Efficiency Services Limited (EESL), would procure energy efficient powerlooms and other kits in bulk and provide them to the small and medium powerloom units at no upfront cost.
- The initiative will be jointly implemented by EESL and the office of the Textile Commissioner.

Swachh Iconic Place

- Meenakshi Sundareswarar Temple in Madurai has been adjudged the best 'Swachh Iconic Place' (clean place) in India.
- It is a special clean-up initiative focused on select iconic heritage, spiritual and cultural places in the country.
- The initiative is being coordinated by the Ministry of Drinking Water and Sanitation in association with the Ministry of Urban Development, Ministry of Culture, Ministry of Tourism and the concerned State governments.

Mission Rice

- Mission rice is organised under the Kudumbasree mission in Kerala.
- The project aims to conserve and propagate seven vanishing indigenous rice seeds of Wayanad District.
- It includes Gandhakasala, Jeerakasala, Palthondi, Chenellu, Rakthashali, Veliyan and Adukkam.

Vayoshreshtha Samman

- President confers 'Vayoshreshtha Samman' to eminent senior citizens and institutions in recognition of their services towards the cause of elderly persons.
- In 2013, it has been upgraded as a "National Award".
- Ministry of Social Justice and Empowerment serves as the nodal ministry for the cause of senior citizens.
- The Awards are given to institutions/organisations/individuals from any part of the country.
- Nominations are invited from Governmental and Non-Governmental Agencies.

GOVERNMENT SCHEMES

Sampoorna Bima Gram Yojana

- Ministry of Communications has recently launched Sampoorna Bima Gram Yojana to give rural people affordable life insurances services.
- Under the scheme, at least one village (having a minimum of 100 households) will be identified in each districts and provide with a minimum of one **RPLI (Rural Postal Life Insurance)** policy for each households.
- Coverage of all households in the identified Sampoorna Bima Gram village is the primary objective of this scheme.
- All villages under the Saansad Adarsh Gram Yojana will be brought under its ambit.

Vittiya Saksharata Abhiyan (VISAKA)

- Ministry of Human Resource Development had launched the Vittiya Saksharata Abhiyan (VISAKA), meaning **financial literacy campaign**.
- It is to actively engage the students of Higher Education Institutions to encourage them to use a digitally enabled cashless economic system for transfer of funds.
- Ministry of HRD also aims to make financial transactions completely digital in all higher education institutions.

SANKALP and STRIVE

- Cabinet Committee on Economic Affairs has recently approved SANKALP and STRIVE schemes.

- Skills Acquisition and Knowledge Awareness for Livelihood Promotion (SANKALP) aimed at providing market relevant training to youths across the country.
- Skill Strengthening for Industrial Value Enhancement (STRIVE) aimed at improving the quality and the market relevance of vocational training provided in ITIs.
- The project will also strengthen the apprenticeship programme through industry-cluster approach.
- Both Schemes are under the Ministry of Skill Development and Entrepreneurship and supported by **World Bank loan assistance**.
- The two schemes will help in setting up national body for vocational education – Vocational Education and Training (VET).
- VET shall regulate accreditation and certification in both long and short term thereby bringing about uniformity in vocational training.
- SANKALP is a centrally sponsored scheme and STRIVE is a central sector scheme.

Pradhan Mantri Kaushal Kendra

- India's first Pradhan Mantri Kaushal Kendra (PMKK) for Skilling in Smart Cities was recently launched.
- It was established by National Skill Development Corporation (NSDC), in collaboration with New Delhi Municipal Council (NDMC).
- It aims to provide skill training for unemployed youth through its short-term training (STT) module and contribute to the capacity building of municipal employees through Recognition of Prior Learning (RPL) program.
- It signifies integration and convergence approach towards the Skill India Mission and the Smart City Mission.

NATIONAL INSTITUTE IN NEWS

Film and Television Institute of India

- Actor Anupam Kher has been appointed as Chairman of FTII.
- FTII is an autonomous institute under the Ministry of Information and Broadcasting.
- It is registered under Societies' Registration Act of 1860.
- It is a member of the International Liaison Centre of Schools of Cinema and Television (CILECT), an organisation of the world's leading schools of film and television.

BILATERAL ISSUES AND EVENTS

India and Lithuania

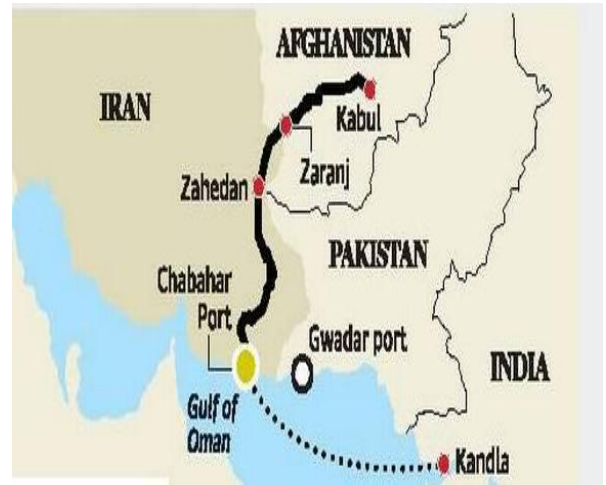
- Cabinet has approved signing of an extradition treaty between India and Lithuania.
- The treaty provides a mutual legal framework for seeking deportation of terrorists, economic offenders and other criminals.

Extradition Treaty Vs Arrangement

- An extradition treaty is a mutually agreed text signed and ratified by two Governments.
- The arrangement is made in the absence of an extradition treaty on the assurance of reciprocity including under an international convention.
- In the arrangement, two countries consider any international convention as the legal basis for extradition in respect of any offence to which the convention applies.
- It does not cover all offences.
- For e.g India has signed extradition arrangement with Italy - Both are States Parties to the 1988 UN Convention against Illicit Traffic in Narcotic Drugs and Psychotropic Substances.
- This Convention has been notified under the Extradition Act by the Government of India.
- Thus the legal basis for extradition will be based on this convention.

India - Afghan Connectivity

- Iran's key strategic port of Chabahar became operational with the maiden shipment of wheat from India to Afghanistan recently.
- This is a major push for India's Afghan outreach bypassing Pakistan for the first time under the 2016 Indo-Afghan-Iran trilateral pact.
- 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.



INTERNATIONAL ISSUES AND EVENTS

BIMSTEC Disaster Management Exercise

- Home Ministry has inaugurated the First 'BIMSTEC Disaster Management Exercise- 2017'.
- The Exercise will be conducted by the National Disaster Response Force (NDRF) as the lead agency.
- It was decided in the 17th BIMSTEC meeting held in Kathmandu in February this year that India would organize the first annual Disaster Management Exercise for the region.
- The exercise is seen as a platform for sharing best practices of Disaster Risk Reduction (DRR), Disaster management among all 7 nations of BIMSTEC.
- BIMSTEC grouping - Bangladesh, Bhutan, India, Myanmar, Nepal, Sri Lanka and Thailand

IBSA Trust Fund Agreement

- The IBSA Dialogue Forum is an international tripartite grouping for promoting international cooperation among India, Brazil, and South Africa.
- It was formalized through the adoption of the "**Brasilia Declaration**" in 2003.
- It promotes the international poverty alleviation and social development with main focus being on equitable development.
- The countries have recently signed the **IBSA Trust Fund Agreement** that seeks to fight poverty in developing countries.
- Each country contributes USD 1 million annually to this fund which is managed by the UN Development Programme (UNDP).

UN Convention on Torture

- The Law Commission recommended that the government should ratify a UN convention on torture and other inhuman and degrading treatment or punishment.
- It is ratified by 161 nations including Pakistan, China and Afghanistan.

Law Commission

- It is an executive (non-statutory) body created by the government from time to time.
- The Commission was originally constituted in 1955 and is re-constituted every three years.
- Accordingly, 21st law commission was constituted in 2015 headed by Justice Balbir Singh for the period of 2015 to 2018.
- Law Commission is requested to work upon specific issues and submit its views assigned by the Law ministry and the Supreme Court on various occasions.

- India signed this convention in 1997 but yet to ratify it.
- India is among the only nine countries worldwide which are yet to ratify this crucial convention.
- This UN convention will help to tide over difficulties in extraditing criminals from foreign countries due to the absence of a law preventing harsh treatment by authorities.
- Law Commission also recommended life in jail for public servants convicted of torture.
- It requires amendment to Criminal Procedure Code, 1973, and the Indian Evidence Act, 1872 to accommodate provisions regarding compensation and burden of proof.

ECONOMY

National Infrastructure Investment Fund (NIIF)

- The Abu Dhabi Investment Authority (ADIA) became the first institutional investor in the NIIF with an investment of \$1 billion.
- The NIIF is a trust that raises debt to invest in the equity of infrastructure finance companies.
- It acts like a bankers' bank in infrastructure financing. Government owns 49% of NIIF.
- It provides equity support to NBFCs/ Financial Institutions (FIs) engaged in infrastructure financing.
- It also provides equity/ debt to commercially viable projects, both greenfield and brownfield, including stalled projects.
- It is being considered as an Alternative Investment Fund (AIF) under SEBI regulation.
- A typical sovereign wealth fund (SWF) will be a state-owned investment company owned by governments and invests their own money in foreign countries.
- Though the NIIF acts like an SWF, it does not invest in assets such as stocks, bonds, real estate, commodities etc like an SMF do and therefore cannot be called so.

Small Savings Scheme

- In a notification, the government has allowed banks, including top three private sector lenders, to accept deposits under various small savings schemes.
- This is done mainly in order to encourage savings through schemes like National Savings Certificate (NSC), recurring deposits and monthly income plan.
- As per the notification, all public sector banks and private sector ICICI Bank, HDFC Bank and Axis Bank will receive subscription from the expanded portfolios.
- Until now, most of the small savings schemes were sold through post offices.

Public Credit Registry

- RBI has constituted a High Level Task Force on Public Credit Registry (PCR) that can provide a roadmap for developing a powerful credit information system.
- PCR is an extensive central database of bank loans (credit information) that is accessible to all stakeholders.
- It captures credit data on all kinds of loans which will be helpful in improving assessment of credit risk by the banks, early detection of non-performing assets (NPAs), and to improve recovery of loans.
- It certifies the details of collaterals, can enable the writing of contracts that prevent over-pledging of collateral by a borrower.
- It will also help to prevent multiple financing against the same property.
- Initially, PCR will cover banks' customers which can then be expanded to cover other financial institutions (NBFCs).
- It will be managed by a public authority like the central bank.
- It would help in enhancing efficiency of the credit market, increase financial inclusion, and improve ease of doing business and help control delinquencies.

Public Financial Management System (PFMS)

- PFMS, earlier known as Central Plan Schemes Monitoring System (CPSMS), is a web-based online software application.
- It is developed and implemented by the Office of Controller General of Accounts.
- It is launched with the objective of tracking funds released under all Plan and non-plan schemes of GoI, and real time reporting of expenditure at all levels of programme implementation.
- The biggest strength of PFMS is its integration with the Core banking system.
- Union Finance Ministry has recently ascertained the mandatory use of PFMS will help in monitoring the flow of funds to beneficiaries of different government welfare schemes.

Multi Commodity Exchange (MCX)

- MCX is a platform for commodity traders that facilitate online trading, settlement and clearing of commodity futures transactions.
- It was initially under the regulation of Forward Market Commission (FMC).
- After the merger of FMC with SEBI, MCX comes under the purview of SEBI.
- The government has recently launched gold as an option under futures trading in MCX for the first time.
- Thus it allows investors to enter into contracts to either buy or sell gold in the future at a pre-determined price.
- MCX offers more than 40 commodities across various segments such as bullion, metals and other agricultural commodities.

Green Masala Bonds

- Indian Renewable Energy Development Agency (IREDA) has raised \$300 million via "Green Masala Bonds" at the London Stock Exchange (LSE).
- This is the first green masala bond on LSE's new International Securities Market.
- The money raised from the green bond will go towards financing renewable energy project across India.
- The bonds are certified by Climate Bonds Initiative, an international, not-for-profit organisation that helps build robust framework around green bond investment.
- IREDA, a state-owned company established non-banking financial institution.
- It extends financial assistance for renewable energy and energy efficiency conservation projects in India.

ENVIRONMENT

Neelakurinji

- Neelakurinji (*Strobilanthes kunthiana*) is a shrub that is found in the shola forests of the Western Ghats in South India.
- It belongs to the genus *Strobilanthes* which has around 250 species.
- Blooming periods of different species of Kurinji differ from each other.
- Neelakurinji blooms once in 12 years and its gregarious blooming are expected in July next year.
- It grows at an altitude of 1300 to 2400 metres.
- Besides the Western Ghats, Neelakurinji is also seen in the Shevroys in the Eastern Ghats.

Red Sanders

- *Pterocarpus santalinus* (Red sanders) is a species of *Pterocarpus* with a common name red sandalwood, and saunderswood.
- It is endemic to the southern Eastern Ghats mountain range of South India.
- It is listed in the category of "**Endangered**" by the IUCN because of overexploitation for its timber in South India.

- It is also listed in the appendix II of the CITES.
- This tree is valued for the rich red color of its wood and it is highly in demand in China.
- The wood is not aromatic and it is not to be confused with the aromatic Santalum sandalwood trees that grow natively in South India.

Fish – Lizard

- Indian scientists have recently discovered a fully preserved fossil sea-dwelling reptile known as the ‘fish lizard’ from Gujarat’s Kutch district.
- The fossil is believed to be from Jurassic period, which lasted from about 250 million to 200 million years.
- The discovery adds to the knowledge of ichthyosaur (fish – lizard) from the southern continents.
- It is the first Jurassic ichthyosaur found in India. It has been found in Americas, Australia and Europe.
- It’s the second significant fossil discovery in India this year.
- The oldest plant fossil in India, red algae from the Chitrakoot region in Madhya Pradesh, believed to be 1.6 billion years old was discovered earlier.

Chondrichthyans

- Chondrichthyes is a class that contains the cartilaginous fishes.
- Sharks, rays and chimaeras are collectively called as chondrichthyans.
- Cartilaginous fishes are jawed vertebrates with paired fins and skeletons made of cartilage rather than bone.
- The first ever assessment of the conservation status of Sharks, rays and Chimaeras in the Arabian Sea Region (ASR) was recently carried out.
- The assessment revealed that 3 marine species viz Pondicherry shark, the red sea torpedo and the tentacle butterfly ray might be possibly extinct in the ASR.
- The guitar fish found in coastal waters of Kerala and Tamil Nadu and the Ganges shark were classified as “Critically Endangered”.
- The ASR covers the waters of the Red Sea, Gulf of Aden, Arabian Sea, Sea of Oman, and the Gulf.

Tawny Lark

- Tawny Lark belongs to a family of larks well-known for their mimicking abilities.
- It is one of India’s 22 lark species.
- It is found only in the arid grasslands and scrub lands of central and west-central India including Gujarat, Uttar Pradesh and Maharashtra.
- Recently, a team of scientists found that male Tawny larks imitate the calls of 34 other bird species, including babblers and lapwings, squirrels and even whistles of local shepherds.
- Rapid urbanization and conversion of grassland and scrub habitats into farms endanger its habitat.

Butterfly Region in West Bengal

- According to the recent study by Zoological Survey of India, Singur in West Bengal’s Hoogly district is home to atleast 69 species of Butterflies.
- Five of the species found in Singur are rare and to be protected under the Wildlife (Protection) Act, 1972.
- They include species like the Tree Flitter, Striped Albatross, Pea Blue, Common Indian Crow and Danaid Egfly.
- Singur is not only rich in butterfly diversity but also in the diversity of frogs and birds.
- It has no forested land and the area is known for rice, potato and vegetable cultivation.

Turtle Sanctuary

- Ministry of Water resources has approved setting up of a **Turtle sanctuary in Allahabad** under Namami Gange Programme.

- The Project envisioned the development of River Biodiversity Park along with Turtle rearing centre.
- The Biodiversity Park will be located at confluence of Ganga, Yamuna and Mythical Saraswati, popularly known as Sangam.
- Rivers Ganga and Yamuna at Allahabad are home to some of the most endangered fauna like turtles, Gangetic dolphin, Gharial and other migratory birds.

Discovery of new lizard

- A new species of large Gecko or house lizard was recently discovered in the Eastern Ghats region.
- It is named after Kanger Ghati National park in Chhattisgarh as gecko “Hemidactylus kangerensis”.
- It is also found in Sukma in Chhattisgarh and in the adjoining State of Telangana, which are part of the Eastern Ghats.
- **Kanger Ghati National park** is located near Jagdalpur in the Bastar region of Chhattisgarh.
- It is known for Hill Myna, the state bird of Chhattisgarh.
- The park is located in the catchment area of Godavari River.

Amrabad Tiger Reserve

- Telangana Forest department has created a new ecotourism spot “Octopus View Point” at Amrabad Tiger Reserve.
- Amrabad Tiger Reserve in the districts of Mahabubnagar and Nalgonda, is the largest tiger reserve in the country.
- Earlier, it was part of 'Nagarjunasagar-Srisailem Tiger reserve'.
- But post-bifurcation, the northern part of the reserve is vested with Telangana state and renamed as 'Amrabad Tiger Reserve'.
- The multipurpose reservoirs Srisailem and Nagarjunasagar are located in the reserve.

Sathyamangalam Tiger Reserve

- The Forest Department has identified hundreds of leopards in Sathyamangalam Tiger Reserve.
- It is a protected area and tiger reserve along the Western Ghats in the state of Tamil Nadu.
- It was first declared as a wildlife sanctuary in 2008 and it is the largest wildlife sanctuary in Tamil Nadu.
- It later became the fourth tiger reserve as a part of project Tiger.
- It is a significant wildlife corridor in the Nilgiri Biosphere reserve between western ghats and the rest of the eastern ghats.

Ban of Pet coke in NCR

- The Supreme Court has recently directed the prohibition of industrial use of pet coke and furnace oil in NCR regions from November 1, 2017.
- Petroleum coke, abbreviated coke or petcoke, is a final carbon-rich solid material that derives from oil refining.
- Petcoke is over 90 percent carbon and emits 5 to 10 percent more carbon dioxide (CO₂) than coal on a per-unit-of-energy basis when it is burned.
- It can contain vanadium, a toxic metal which is toxic in tiny quantities, 0.8 micrograms per cubic meter of air.
- It is sometimes a source of fine dust, which can get through the filtering process of the human airway and lodge in the lungs.

Meeting of CMS and its outcomes

- The Twelfth Session of the Conference of the Parties to the Bonn Convention (CMS COP12) was held in Manila, the Philippines.
- It is the first time that the COP has been held in Asia.

- The slogan for the Conference is “Their Future is Our Future – Sustainable Development for Wildlife & People”, links to the Sustainable Development Goals.
- **Four Asian Vultures** such as red-headed vulture, white-rumped vulture, Indian vulture and slender-billed vulture are set to get highest protection by the convention.
- **The whale shark**, which inhabits the Indian Ocean, got global protection too. **The Caspian seal**, the only marine mammal found in the world’s largest inland sea has also been identified for conservation.
- The next edition of the meeting will be held in India in 2020.

Bonn Convention

- Convention on the Conservation of Migratory Species of Wild Animals (CMS) is popularly known as Bonn convention.
- It is an environmental treaty under the aegis of United Nations Environment Programme.
- It brings together the States through which migratory animals pass (the range states) and lays down conservation measures.
- Migratory species threatened with extinction are listed on Appendix I of the Convention.
- CMS Parties strive towards strictly protecting these animals, conserving and mitigating obstacles to their migration.
- Migratory species that need or would significantly benefit from international co-operation are listed in Appendix II of the Convention.
- India is a party to this convention whereas China, Russia, US, Canada, Japan are not party to it.

SCIENCE AND TECHNOLOGY

Space

Temperature in the Sun’s Atmosphere

- The sun’s atmosphere corona is much hotter than its visible surface Photosphere.
- Normally, the layer closest to a source of heat, the Sun’s surface, in this case, would have a higher temperature than the more distant atmosphere.
- But the reason for the high temperature is the constant eruption of tiny solar flares in the solar atmosphere.
- The solar flares produce hard X-rays, whose wavelengths are much shorter than the light humans can see and it is a signature of extremely hot solar material.

Quasi-Zenith Satellite System

- Quasi-Zenith is a regional terrestrial positioning network system launched by Japan.
- The satellite system consists of 4 satellites which will operate at an altitude of between 33,000 and 39,000 km above the earth in **geosynchronous orbit**.
- Its function is to improve GPS data accuracy for smartphones and vehicle navigation systems and complementary use of GPS.
- Japan recently launched its fourth and final quasi-zenith satellite into orbit.
- These satellites will be to establish communications during a malfunction of traditional networks due to a natural disaster.

Dawn Mission

- Dawn mission was launched by NASA deploying spacecrafts to orbit extra terrestrial objects.
- It is the only mission ever to orbit two extraterrestrial targets.
- It orbited giant asteroid Vesta for 14 months from 2011 to 2012, then continued on to Ceres, where it has been in orbit since March 2015.
- Ceres is the largest object in the asteroid belt between Mars and Jupiter.
- NASA has recently authorized a second extension of the Dawn mission at Ceres.
- During this extension, the spacecraft will descend to lower altitudes than ever before at the dwarf planet, which it has been orbiting since 2015.

Global Aurora

- Recently, a strong solar storm hit Mars sparking a global aurora and doubling radiation levels on the red planet.
- This aurora is 25 times brighter than any previously seen by the MAVEN orbiter.
- The event has occurred strangely during the Sun's 11-year sunspot and storm-activity cycle.
- These events will improve the understanding the effects of solar storm on the Martian environment.

Comet Rings

- NASA Scientists have spotted narrow dense rings of comets coming together to form massive planets.
- It is found on the outskirts of at least 3 distant solar systems with at least the size of a few Earths.
- Its mass is estimated based on the amount of light they reflect.
- The bright outer rings composed of comet like bodies at 75 to 200 astronomical units from their parent stars which is about 2 to 7 times the distance of Pluto from our own Sun.
- The composition of the material in these rings varies from ice - rich to ice- depleted but carbon rich.
- The scientists are especially intrigued by the red dust ring surrounding the planet "HR 4796A", which shows unusually tight form for an infant solar system.

Defence

US-2 Amphibian

- It is Japan's aircraft, designed for air-sea rescue work.
- The Indian government has been keen on acquiring the US-2i as part of their expanding bilateral strategic partnership.
- The aircraft requires only one fourth of the distance that commercial airlines require for takeoff and landing.
- The aircraft has an approximate operational range of 4500 km and a cruise speed of 480 km/hr. It does not require runway construction.

INS Chakra

- INS Chakra belongs to Akula-class nuclear powered Submarine.
- It was taken from Russia on a 10 year lease period.
- Originally named as K-152 Nerpa, it was handed over to the Indian Navy in 2011.
- Though it is a nuclear powered submarine, it carries only conventional weapons and not nuclear tipped missiles.
- It is based at INS Virbahu, the submarine base in Visakhapatnam.
- It is the second nuclear submarine after the indigenously built INS Arihant.
- INS Arihant is capable of launching nuclear-tipped submarine ballistic missiles.

Khanderi

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

INS Vikramaditya

- US team members of joint working group (JWG) on aircraft carrier cooperation have been allowed to visit and operate Russian built Aircraft INS Vikramaditya.
- INS Vikramaditya is a Kiev class aircraft carrier which was commissioned by Russian Navy in 1987 under the name Baku.
- It was later renamed as Admiral Gorshkov and later offered to India in 2004.
- It is the biggest and heaviest ship to be operated by the Indian Navy.

INS Vishal

- INS Vishal is a follow up of INS Vikrant class air craft carriers.
- It is currently being built by Cochin Shipyard limited for the Indian Navy.
- It is intended to be the first supercarrier to be built in India.
- It would be a 65,000-70,000 tonne, nuclear-powered vessel that launched aircraft with an "electro-magnetic aircraft launch system (EMALS)".
- EMALS uses electro-magnetic energy to catapult aircraft to launch speed.
- India's selection of EMALS would allow the US a place in the design of the ship.

INS Aridhaman

- It is India's second strategic **nuclear submarine** which is going to be launched soon.
- Aridhaman belongs to Arihant class submarine, carrying ballistic missiles and powered by light water nuclear water.
- It will carry K-15 and K-4 ballistic missiles as does INS Arihant.
- K-4 is an intermediate range ballistic missile that can hit targets as far as 3500 km.
- INS Arihant was inducted into service in 2016.
- It made India the only country apart from the five permanent members of the UN Security Council to operate a homemade nuclear U-boat.
- Nuclear submarines are those that are powered by onboard nuclear reactors whereas conventional submarines generate energy by burning diesel, which requires air.

INS Kiltan

- It is the indigenously-built **anti-submarine warfare stealth corvette**.
- It has been recently inducted into the Indian Navy.
- It is the latest indigenous warship after Shivalik Class, Kolkata Class and sister ships INS Kamorta and INS Kadmat.
- It is India's first major warship to have a superstructure of carbon fibre composite material resulting in improved stealth features.
- The ship derives its name from one of the islands in Aminidivi group of the Lakshadweep and Minicoy group of islands.

INS Sukanya

- The Sukanya-class patrol vessels are large, offshore patrol craft in active service with the Indian Navy.
- Currently there are 3 lead ships under this class – INS Sukanya, Subhadra and Suvarna.
- INS Sukanya has recently participated in the bilateral exercise CORPAT (Coordinated Patrol) between India and Indonesia.
- The exercise is aimed to foster closer maritime ties with countries located on the rim of the Indian Ocean.

Vikram Class offshore Patrol Vessel

- Vikram is the first of a series of seven offshore patrol vessels (OPV).

- OPV are long-range surface ships capable of coastal and off-shore patrolling, policing maritime zones, control & surveillance, anti-smuggling and anti-piracy operations.
- It is the country's first-ever such defence craft to be built in a private shipyard (L&T).
- It is likely to be inducted into the Indian Coast Guard in April 2018.

Project 28

- Project 28 is a class of anti-submarine warfare corvettes currently in service with the Indian Navy.
- They are the first anti-submarine warfare stealth corvettes to be built in India.
- The Project was approved in 2003, with construction of the lead ship, INS Kamorta commencing on 2005.
- Three of the four corvettes, INS Kamorta and INS Kadmat, INS Kiltan were commissioned in 2014, 2016 and 2017 respectively.
- INS Kavaratti is under construction and slated to be completed by end of 2017.

Indra-2017

- Indra is the joint exercise of India and Russia.
- Exercise INDRA in its previous 9 years has been conducted as a single service exercise alternately between the two countries.
- This year, it has been upgraded to involve all the three Services of the Armed Forces (Army, Navy & Air Force).
- Thus it is the First Ever International Tri Service Exercise.
- It will be conducted in Russia and the main focus of the joint exercise will be counter-terrorism.
- The Indian Air Force had participated in an exercise 'AviaIndra' with Russian air force in 2014.

Mitra Shakti

- It is **India-Sri Lanka** joint military exercise.
- It had started in 2012 as a response to China's efforts to increase its influence in South Asia and the Indian Ocean region.
- This year exercise, fifth in the series will be held in Pune.
- The armies of India and Sri Lanka also serve together in the United Nations Peacekeeping missions.

2.8 VARUNA

- Recently, India and France discussed about enhancing the scope of their joint exercises, in particular the **VARUNA naval exercise** scheduled in early 2018.
- Both countries will also actively explore additional measures to facilitate operational level interactions between their respective armed forces.

Others

Usutu Virus

- It belongs to "flavivirus" family along with tick-borne encephalitis, West Nile, and Dengue virus.
- The virus is of African origin and it was first detected in Austria in 2001.
- It caused a severe bird die-off, mainly of blackbirds and songbirds.
- Besides wild birds, humans can also be infected with the virus through mosquito bites.
- This year, already the virus is detected in songbirds in Austrian region.

Kala Azar

- Visceral leishmaniasis (VL), also known as kala-azar, is caused by the protozoan Leishmania parasites.
- It is transmitted to humans through infected sandflies.
- It is characterized by irregular bouts of fever, weight loss, enlargement of the spleen and liver, and anaemia.
- The parasite migrates to the internal organs such as the liver, spleen, and bone marrow, and, if left untreated, may result in the death.
- It is endemic to the Indian subcontinent in 119 districts in four countries (Bangladesh, Bhutan, India and Nepal).

- India itself accounts for half the global burden of the disease.
- Scientists have recently identified an unknown virus that may be responsible for the persistence of kala-azar.
- However, scientists are still not clear how the parasites cause the infection and how they manage to hide within the body.

Cholera

- After the 2010 earthquake in Haiti there was a sudden outbreak of cholera.
- According to a recent study, bacterial strains similar to those found in Haitian cholera were present in Delhi as early as 2004, showing that the disease may have originated in the Indian subcontinent.
- Cholera is an acute diarrhoeal infection caused by ingestion of food or water contaminated with the bacterium *Vibrio cholerae*.
- Diarrhoea can be so severe that it leads within hours to severe dehydration and electrolyte imbalance. It can be successfully treated with oral rehydration solution.
- Cholera transmission is closely linked to inadequate access to clean water and sanitation facilities.
- During the 19th century, cholera spread across the world from its original reservoir in the Ganges delta in India.

Avian Influenza A(H7N9)

- It is a subtype of influenza viruses.
- This particular A(H7N9) virus was first found in March 2013 in China.
- Since then, infections in both humans and birds have been observed.
- The disease is of concern because most patients have become severely ill.
- Most of the cases of human infection with this avian H7N9 virus have reported recent exposure to live poultry or potentially contaminated environments.
- This virus does not appear to transmit easily from person to person, and sustained human-to-human transmission has not been reported.
- However, Lab experiments on a new strain of the H7N9 bird flu suggest the virus can transmit easily among animals and can cause lethal disease.
- This raise alarm that the virus has the potential to trigger a global human pandemic.

Embryo Transfer Technology

- Government has undertaken a Mass Embryo Transfer programme in Indigenous Breeds under National Mission on Bovine Productivity.
- Embryo transfer refers to a step in the process of assisted reproduction in which embryos are placed into the uterus of a female with the intent to establish a pregnancy.
- It is implemented with the objective of conservation and development of indigenous breeds under Rashtriya Gokul Mission.
- Under this programme, embryos of higher genetic merit indigenous bovines are being transferred in to surrogate cows.
- Embryos of Indigenous breeds such as Sahiwal, Gir, Red Sindhi, Ongole, Deoni and Vechur have been proposed to be transferred under this programme.

INDEX AND REPORT

Report on Modern Slavery

- A study on “Global Estimates of Modern Slavery” was conducted by a Walk Free Foundation (WFF), Australia based Human Rights Group.
- The report was published on behalf of the global body International Labour Organisation (ILO).
- The country wise figures are not mentioned in the report but it has revealed that 40.3 million people are victims of modern slavery in 2016.

- Global Slavery Index is computed by WFF every year.

Global Financial Centres Index (GFCI)

- Gujarat International Finance Tec-City (GIFT City)'s International Financial Services Centre (IFSC) has bagged the 10th spot in GFCI.
- GIFT IFSC is ranked tenth, ahead of Luxembourg, Seoul, Abu Dhabi, Toronto and Beijing in the list of the GFCI report.
- The report presents parameter for measuring the attractiveness of financial centres and understanding the growth and competitiveness of financial centres.
- It is produced bi-annually by the China Development Institute (CDI) in Shenzhen and a commercial think tank in London.

Passport Index

- The index ranks passports worldwide based on the cross-border access a holder has.
- It was developed by Canada based global consultancy Arton Capital.
- In its new ranking, Singapore has the world's most powerful passport which allows travel to 159 countries either without a visa or visa on arrival.
- It is the first time that an Asian country has occupied the first place in the index.
- Germany listed in second place with its citizens able to visit 158 countries.
- India has improved its ranking to 75th position from 78th last year.

AWARDS AND PRIZES

Nobel Prize in Chemistry

- It was awarded for the development of technique called "**cryo-electron microscopy**" which helps in determining the structure of biomolecules in solution.
- It takes accurate and detailed pictures of living things at atomic scales.
- The high-resolution, 3D images can help in cancer drug research and better understanding of the Zika virus.

Nobel Prize in Literature

- It was awarded to the British novelist of Japanese origin, Kazuo Ishiguro.
- According to the Swedish Academy, he is the one "who, in novels of great emotional force, has uncovered the abyss beneath our illusory sense of connection with the world".
- He had also received four Man Booker Prize nominations and won the 1989 award for his novel The Remains of the Day.

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