



# IAS PARLIAMENT

*Information is a Blessing*

A Shankar IAS Academy Initiative

## CURRENT AFFAIRS MAGAZINE

**Shankar IAS Academy™**

Door No 18, New Plot No 259 /109,  
AL Block, 4th Avenue, Shanthi Colony,  
Annanagar, Chennai - 600040.

[www.shankariasacademy.com](http://www.shankariasacademy.com) | [www.iasparliament.com](http://www.iasparliament.com)



**SEPTEMBER 2018**

**INDEX**

<b>G.S PAPER II .....</b>	<b>4</b>
<b>1. POLITY .....</b>	<b>4</b>
1.1 Supreme Court Verdict on Section 377 .....	4
1.2 Supreme Court Verdict on Aadhaar .....	5
1.3 Supreme Court Verdict on Promotions in SC/ST .....	7
1.4 Supreme Court on SC/ST Reservation - Home State .....	8
1.5 Removal of J&K DGP .....	9
1.6 Law Commission on Personal Laws .....	10
1.7 Code of Conduct for Members of Legislature .....	11
1.8 Supreme Court on Criminalisation of Politics .....	12
<b>2. GOVERNMENT ACTS, AND POLICIES AND INTERVENTIONS .....</b>	<b>13</b>
2.1 Statutory Recognition of Trade Unions .....	13
2.2 Activists Arrest - Supreme Courts' Mandate .....	14
2.3 Misuse of Unlawful Activities Prevention act .....	15
2.4 Successful implementation of Maharashtra's RERA act .....	16
2.5 Pradhan Mantri Annadata Aay SanraksHan Abhiyan (PM-AASHA) .....	17
2.6 UGC's Surgical Strike Day Circular .....	18
2.7 National Digital Communications Policy-2018 .....	19
<b>3. SCIOIAL ISSUES .....</b>	<b>21</b>
3.1 Supreme Court Verdict on Adultery .....	21
3.2 SC Verdict on Women's Entry into Sabarimala Temple .....	22
3.3 Ordinance on Triple Talaq .....	23
3.4 I&B Advisory on the Term 'Dalit' .....	24
3.5 Kerala Migration Survey .....	25
<b>4. GOVERNANCE .....</b>	<b>26</b>
4.1 Governance Issues - Public sector banks .....	26
<b>5. HEALTH .....</b>	<b>27</b>
5.1 HIV and AIDS (Prevention and Control) Act .....	27
5.2 Pradhan Mantri Jan Arogya Abhiyan .....	28
<b>6. INDIA AND ITS NEIGHBOURHOOD .....</b>	<b>30</b>
6.1 BIMSTEC Summit 2018 - Kathmandu declaration .....	30
6.2 Relook at BIMSTEC's Functioning .....	31
6.3 India at the UNGA .....	32
<b>7. BILATERAL RELATIONS .....</b>	<b>33</b>
7.1 India-U.S. 2+2 Dialogue .....	33
7.2 LEMOA Fully Operationalised .....	36
7.3 Challenges in concluding RCEP .....	36
<b>8. INETRNLATIONAL ISSUES .....</b>	<b>37</b>
8.1 North American Free Trade Agreement .....	37
8.2 Land Distribution in South Africa .....	39
8.3 Chemical Weapons Convention Act of 2000 .....	40
8.4 Elimination of Nuclear Weapons .....	41
<b>G.S PAPER III .....</b>	<b>42</b>
<b>9. ECONOMY .....</b>	<b>42</b>
9.1 Understanding 8.2% GDP Growth .....	42
9.2 Bank of Baroda, Dena Bank & Vijaya Bank Consolidation .....	43
9.3 Stock Market Volatility .....	45
9.4 Downgrading IL&FS .....	46
9.5 Estimates committee's report on Non-performing assets .....	47



9.6	RBI Surplus Transfer to Government .....	48
9.7	Pension Fund Regulatory Development Authority .....	48
9.8	India Post Payments Bank .....	50
9.9	Causes for Weakening Rupee .....	51
9.10	Dealing with Fuel Price Rise .....	52
9.11	New Procurement Policy .....	53
9.12	Interpol Red Notice .....	54
9.13	Challenges in Current Account Deficit .....	55
9.14	SC's Stay on RBI's Circular .....	56
9.15	Changes in Mutual Fund Regulations .....	57
9.16	India's Action on Import Duty .....	58
9.17	SEBI Panel's suggestion on FPI Norms .....	58
9.18	Addressing Rising Oil Prices .....	60
9.19	Pricing mechanism behind Petroleum .....	61
10.	INFRASTRUCTURE .....	62
10.1	Collapse of Flyover and Bridge .....	62
10.2	Promoting Waterways .....	63
11.	AGRICULTURE .....	64
11.1	Storing Foodgrains in the Open .....	64
11.2	Collectivization of Small Holder Farmers (SHF) .....	65
11.3	Challenges with Bumper Harvest .....	67
11.4	Significance of Bamboo Cultivation .....	68
11.5	Issues with Cotton Production .....	69
12.	SCIENCE & TECHNOLOGY .....	70
12.1	Upgrade to Large Hadron Collider - CERN .....	70
12.2	Defining Pluto and a 'Planet' .....	72
13.	ENVIRONMENT .....	73
13.1	Flooding and Soil Degradation .....	73
13.2	UN Framework Convention on Climate Change Conference .....	74
13.3	Reasons behind Kerala Flood - Post Analysis .....	75
13.4	Shoot-at-sight order for a Tigress .....	76
13.5	Cauvery Basin - Ecological concerns .....	76
13.6	Construction and Demolition(C&D) Waste .....	77
13.7	Draft India Cooling Action Plan .....	79
14.	INTERNAL SECURITY .....	80
14.1	Transparency in Rafale deal .....	80
14.2	Committee on Extra-judicial Killings in Assam .....	81
<b>PRELIM BITS .....</b>		<b>81</b>
Geography .....		81
Polity .....		83
Government Initiatives .....		86
Government Schemes .....		90
National Institutes in News .....		91
Bilateral Issues .....		92
International organisations .....		92
International issues and events .....		95
Economy .....		95
Environment .....		97
Science and Technology .....		102
Defence .....		105
Others .....		107
Index and Report .....		109



## SEPTEMBER 2018

### G.S PAPER II

#### 1. POLITY

##### 1.1 Supreme Court Verdict on Section 377

###### Why in news?

A Constitution Bench of the Supreme Court has unanimously decriminalised homosexuality.

###### What were the concerns with Section 377?

- Section 377 creates a class of criminals, consisting of individuals who engage in consensual sexual activity.
- It typecasts Lesbian, Gay, Bisexual, and Transgender, Queer (LGBTQ) individuals as sex-offenders.
- It categorised their consensual conduct on par with sexual offences like rape and child molestation.
- This has led to stigmatisation, condemnation and even ineffective HIV prevention and treatment among LGBTQ individuals.

###### What was the judgment?

- The Bench unanimously held that criminalisation of private consensual sexual conduct between adults of the same sex was clearly unconstitutional.
- The court, however, held that the Section 377 would apply to “unnatural” sexual acts like bestiality.
- Sexual act without consent would also continue to be a crime under Section 377.
- The Centre was urged to take all measures to ensure that the judgment is given wide publicity.

###### What was SC's rationale?

- **Individual** - Bodily autonomy is individualistic as it is a matter of choice and is part of dignity.
- Sexual orientation is biological and innate, as an individual has no control over who they get attracted to.
- Any repression of this by the state will be a violation of free expression.
- **Rights** – Homosexuals have a fundamental right to live with dignity and possess full range of constitutional rights including sexual orientation, partner choice, equal citizenship and equal protection of laws.
- The State cannot decide the boundaries between what is permissible and not.
- **Society** - Section 377 is based on deep-rooted gender stereotypes and a majoritarian impulse to subjugate a sexual minority.
- But the societal morality cannot override constitutional morality and fundamental rights.
- **Nature** - Homosexuality was documented in 1,500 species and was not unique to humans.
- This firmly dispels the prejudice that homosexuality is "against the order of nature".
- **Right to Love** - Section 377 speaks not just about non-procreative sex but also about forms of intimacy i.e the 'right to love'.
- But the social order finds some of these 'disturbing'.
- It is the result of limits imposed by structures such as gender, caste, class, religion and community.
- These limits affect the “right to love” of not just the LGBTQ individuals, but of couples who make relationships across caste and community lines.
- **Perception** - The recent parliamentary re-enactment of the Mental Healthcare Act, 2017 makes it clear that homosexuality is not considered to be a mental illness.
- It is reaffirmed that mental illness shall not be determined on the basis of non-conformity with moral, social, cultural, religious beliefs.

## What are the shortcomings?

- How the judgment operates on the ground is yet to be seen as recent orders on triple divorce and lynching have not had visible impact.
- The judgment has opened up grey areas, and new guidelines will be needed.
- e.g Say, a gay individual withdraws “consent” and lodges a complaint against their partner.
- India’s laws on sexual assault do not recognise men as victims of rape. Police will now have to establish the principle of consent.

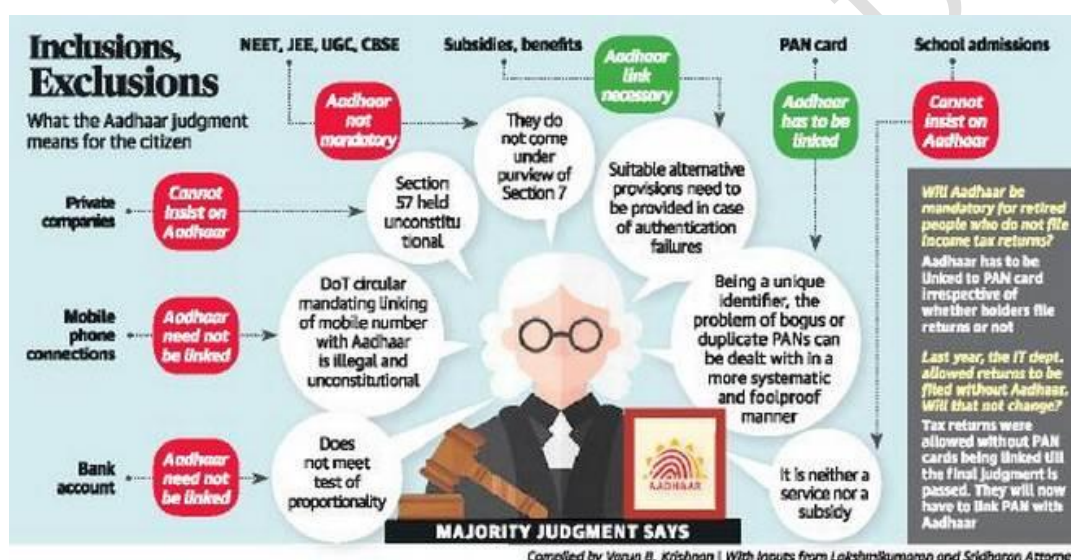
## 1.2 Supreme Court Verdict on Aadhaar

### Why in news?

The Supreme Court recently upheld the constitutionality of the Aadhaar in its majority verdict (4 out of 5 judges).

### What are the highlights of the majority verdict?

- The majority ruling called Aadhaar “a document of empowerment”.



- **Right to privacy** - Not all matters pertaining to an individual were an inherent part of the right to privacy.
- Only those matters in which there was a reasonable expectation of privacy were protected by Article 21 of the Constitution.
- In this context, the Aadhaar scheme passed the triple test laid down in the Puttaswamy (Privacy) judgment to check if it invades privacy viz.
  1. **existence of a law** - backed by the statute i.e. the Aadhaar Act
  2. **a legitimate state interest** - to ensure that social benefit schemes reach the deserving community
  3. **test of proportionality** - balances the professed benefits of Aadhaar and the potential threat it carries to the fundamental right to privacy
- **Money Bill** - Section 7 of the Aadhaar Act mandates that individuals should produce Aadhaar to access social services, subsidy, benefits, etc. and clearly declares that expenditure incurred would be from the Consolidated Fund of India.
- Since Section 7 is the main provision of the Act, the validity of the Aadhaar Act being passed as a Money Bill is upheld.
- **Surveillance state** - During the enrolment process, “minimal biometric data in the form of iris and fingerprints is collected”.
- Also, UIDAI “does not collect purpose, location or details of the transaction”.



- Hence the manner of operation of Aadhaar, "do not tend to create a surveillance state".
- Security of biometric data** - UIDAI has mandated only registered devices to conduct biometric-based authentication transactions.
- With these registered devices, the biometric data is encrypted within the device using a key.
- This creates a unidirectional relationship between the host application and the UIDAI.
- This also rules out any possibility of the use of stored biometric, or the replay of biometrics captured from another source.
- Further, as per the regulations, authentication agencies are not allowed to store the biometrics captured for Aadhaar authentication.
- Telecoms** - Aadhaar-based re-verification of mobile numbers has been held illegal and unconstitutional as it was not backed by any law.
- As a result-

- telecom cannot insist on customers to furnish Aadhaar details
- the provision that allowed private entities to conduct authentications has been held illegal.
- corporate bodies including banks, mobile wallets, etc also cannot ask for Aadhaar number.

- PAN** - Section 139AA of IT Act makes Aadhaar mandatory for filing IT returns and applying for PAN.
- Since it stood the triple test and did not violate the right to privacy, linking of PAN with Aadhaar will be mandatory.
- But there was no deadline mentioned by the court.
- It is also said that if in the regulations, a provision was made that impinged upon the right to privacy, it could be challenged.
- Linking of bank accounts** - Linking of bank accounts and other financial instruments with Aadhaar were made mandatory by 2017 amendment to Prevention of Money Laundering Act Rules, 2005.

AADHAAR IS...	
<b>NOW NOT NEEDED FOR</b> <ul style="list-style-type: none"> <li>Employee pension</li> <li>Admission to school</li> <li>Taking CBSE, NEET, JEE, UGC exams</li> <li>Re-verification of mobile number</li> <li>Bank accounts</li> <li>Mutual fund investments</li> <li>Insurance policies</li> <li>Credit cards</li> <li>New/existing post office schemes</li> <li>New/existing NSC accounts</li> <li>New/existing PPF accounts</li> <li>New/existing Kisan Vikas Patra accounts</li> </ul>	<ul style="list-style-type: none"> <li>Mid-day Meal for children</li> <li>Assistance/scholarship given by Department of Empowerment of Persons with Disabilities</li> <li>Supplementary Nutrition Programme under ICDS Scheme</li> <li>Payment of honorarium to AWWs &amp; AWHs under ICDS Scheme</li> <li>ICDS Training Programme</li> <li>Supplementary Nutrition for children offered at creche centres</li> <li>Honorarium to creche workers and creche helpers</li> <li>Maternity Benefit Programme</li> <li>Scheme for Adolescent Girls</li> <li>National Mission for Empowerment of Women</li> <li>Ujjwala Scheme</li> <li>Swadhar Scheme</li> <li>Integrated Child Protection Scheme</li> <li>STEP programme</li> <li>Rashtriya Mahila Kosh</li> <li>Pradhan Mantri Matru Vanana Yojana</li> <li>Painting, essay contests under IEC component of human resource development and capacity building</li> </ul>
<b>STILL NEEDED FOR</b> <ul style="list-style-type: none"> <li>PAN card</li> <li>National Child Labour Project (NCLP)</li> <li>Scholarships for school students, such as National Means-cum-Merit Scholarship Scheme, National Scheme of Incentive to Girls for Secondary Education, Inclusive Education of the Disabled at Secondary Stage</li> </ul>	

- It does not stand the proportionality test because just for preventing money laundering, there cannot be such a provision targeting every resident as a suspicious person, which is seen as disproportionate.
- Therefore the amendment is declared unconstitutional.
- Details already given** - The judgment does not clearly state if banks/mobile companies that have already collected Aadhaar data will have to delete the collected information.
- But the court has upheld the validity of all Aadhaar enrolment done prior to the enactment of the Aadhaar Act.
- It has also said that since enrolment was voluntary, those who refuse to give consent would be allowed to exit.
- Aadhaar for education** - Statutory bodies like CBSE and UGC cannot ask students to produce their Aadhaar cards for examinations like NEET and JEE.
- Aadhaar would also not be compulsory for school admissions as "it is neither a service nor subsidy" but a fundamental right for children between 6 and 14.
- Aadhaar for children** - The consent of parents/guardians will be essential for the enrolment of children under the Aadhaar Act.
- On attaining the age of majority, such children shall have the option to exit.
- Section 33(1), Aadhaar Act** - It prohibits disclosure of information (identity and authentication), except when it is by an order of a district judge or higher court.
- The judgment enabled individuals to have a right to challenge such an order by approaching the higher court.

- **Section 33(2), Aadhaar Act** - It provides for disclosure of information in the interest of national security when directed by an officer of Joint Secretary or higher rank.
- The court struck down this provision in the present form.
- **Section 47, Aadhaar Act** - It provides for cognisance of offence only on complaint by UIDAI (or any person authorised by it).
- The court ruled that this needed suitable amendment to provide for filing of complaints also by an individual whose right was violated.
- **Section 57, Aadhaar Act** - It provides for use of Aadhaar number for establishing the identity of an individual for any purpose, by the state or any corporate or person.
- The court has said that the section would impinge upon the right to privacy of the individual and enable commercial exploitation of biometric and demographic information.
- The court thus **read down** (providing narrow interpretation) this provision as susceptible to misuse.
- **Regulation 26(c), Aadhaar Regulations** - It allowed UIDAI to store metadata relating to transactions.
- The court struck down this regulation in its present form.
- **Regulation 27** - It allowed archiving transaction data for 5 years, which is now reduced only upto 6 months.

#### What are the highlights of the minority judgment?

- Justice D Y Chandrachud gave the dissenting minority judgment in which he observed the following.
- **Surveillance** - The architecture of Aadhaar poses a risk of potential surveillance activities through the Aadhaar database.
- From the verification log, it is possible to locate the places of transactions carried out by an individual over the past five years (now made six months).
- **Money Bill** - Passing of a Bill as a Money Bill, when it does not qualify for it, damages the delicate balance of bicameralism.
- Notably, bicameralism is part of the basic structure of the Constitution.
- The ruling party in power may not command a majority in the Rajya Sabha.
- But the legislative role of that legislative body cannot be obviated and passing it as money bill was “a fraud on the Constitution.”
- **Shortfalls** - The biometric authentication failures that have led to denial of rights and legal entitlements were violative of human dignity and impermissible under the constitutional scheme.

#### What was the Court's rationale?

- The failure to establish the identity of an individual is a major hindrance to the successful implementation of welfare programmes.
- Absence of a credible system to authenticate identity made it difficult for benefits to reach the intended beneficiaries.
- The Aadhaar project thus ensures dignity for marginalised sections by leveraging the power of technology.
- The enrolment reached 1.2 billion people, and the programme had acquired a scale and momentum that is irreversible.
- Necessary measures were also taken to ensure security of information provided by individuals while enrolling.
- So the Court upheld the constitutional validity of Aadhaar and clarified areas in which it cannot be made mandatory.
- The judgement has thus plugged the loopholes rather than strike down the project altogether.

### 1.3 Supreme Court Verdict on Promotions in SC/ST

#### Why in news?

SC has recently invalidated the conclusions arrived in M Nagaraj case.

### What was the Nagaraj verdict?

- The Supreme Court had held that the state was **not bound** to provide reservation in promotions to SCs/STs.
- But in case any state wished to make such a provision, it was required to –
  1. Collect quantifiable data on backwardness of the class
  2. Prove its inadequate representation in public employment
  3. Show no compromise on efficiency of administration
- Additionally, the state was also required to ensure that the reservation does not breach the 50% ceiling.
- The ruling also said that the 'creamy layer' concept applies to SCs and STs for promotions in government jobs.

### What was the government's reaction?

- The Centre and various state governments had sought reconsideration of the verdict.
- They argued that members of the SC/ST communities were presumed to be backward and considering the stigma attached to their caste, they should be given reservation even in job promotions.

### What is the present ruling?

- SC had reversed the earlier judgment on collecting quantifiable data to prove backwardness.
- It said that it was contrary to the decision in **Indira Sawhney case**, where it was held that once SCs and STs were part of the Presidential List under Articles 341 and 342 of the Constitution, and there was no need to prove backwardness.
- Hence, SC ruled that States need not collect **quantifiable data on the backwardness** of SC/ST for giving quota in job promotion to SC/ST employees.
- At the same time, the apex court says that **the inadequacy of representation of SC/ST needs to be demonstrated** and data must be relatable to the concerned cadre.
- The data must be collected by the states and SC/ST population as a whole should not be taken into account, while calculating inadequacy.
- The collected data can also be tested by the courts.
- When it comes to promotion of SC/ST employees, the court held that the creamy layer concept does apply.
- So now, only in direct recruitment of the SC/STs, the creamy layer concept does not apply.
- However, the state governments have the discretion to invoke Articles 16 (4A) and 16 (4B).
- This is to provide for reservations in promotions for Scheduled Castes and Scheduled Tribes with consequential seniority.
- "Consequential seniority" refers to promotions made purely on reservation basis despite another person waiting for promotion being actually senior to him/her.
- The court also said that "efficiency of administration" has to be looked at every time promotions are made.

### 1.4 Supreme Court on SC/ST Reservation - Home State

#### Why in news?

A Supreme Court bench has held that scheduled castes or tribes can avail benefit of reservation in government jobs only in their home states.

#### What is SC's rationale?

- A particular community is notified as SC/ST in relation to a state.
- They do not necessarily carry the same status in another state or UT.
- So the concept would become invalid if migrants from other states are automatically within its ambit.
- The Court has thus upheld the "son of the soil" principle.
- Accordingly, if a person's status migrates with him/her it will amount to depriving the rights of SC/STs of the host state.



- For the purpose of Articles 341 and 342 in Constitution, the reservation benefits would be within the geographical territories of a state or UT.
- Also, Presidential Orders issued under Article 341 and 342 cannot be varied or altered.
- (Article 341 is in regard to scheduled castes and Article 342 is in regard to scheduled tribes.)
- So the state could not alter the list of SCs or STs by including other castes or tribes.
- This can be done only by Parliament, and states doing so will lead to constitutional anarchy.

#### What are the concerns?

- The ruling strikes a blow at the idea of a single citizenship for all Indians.
- It makes only the upper castes to enjoy the rights of mobility across India without paying a cost.
- This makes reservations subjective if granted by the state, and not the Centre.
- The idea implicit in the judgment is that state reservations are for state 'citizens' and not 'outsiders'.
- With long-run consequences, this could change the nature of the Indian Union.

### 1.5 Removal of J&K DGP

#### Why in news?

J&K Governor recently approached the SC seeking "modification" of its order regarding the appointment and removal of DGP by the states.

#### What happened in J&K?

- State Assembly of J& K was suspended in June 2018 and subsequently Governor's rule was imposed.
- The Governor administration in J&K recently removed Director General of J&K Police (Law & Order) and posted him as Transport Commissioner.
- The administration says this was done due to certain emergent circumstances.
- Also, DGP-Prisons of the state was made to hold the charge as acting DGP till regular arrangement is made.

#### What does the recent SC ruling imply?

The SC recently passed an order on appointment and removal of DGP in accordance with its 2006 judgment in **Prakash Singh vs Union of India** which reads as follows.

- **Appointment** - All the States should send their proposals to the UPSC in anticipation of the vacancies to the post of DGP.
- This has to be done at least 3 months prior to the date of retirement of the incumbent DGP.
- The UPSC will prepare the panel, wherein merit and seniority should be given due weightage.
- States should immediately appoint one of the persons from the panel prepared by the UPSC.
- However, no states should appoint any person on the post of DGP on **acting basis**, as there is no concept as such as per the decision in Prakash Singh's case.
- **Tenure** - It has to be ensured that the person who was selected and appointed as the DGP continues despite his date of superannuation (retirement).
- However, some states have adopted a practice to appoint the DGP on the last date of retirement as a consequence of which the person continues for two years after his date of superannuation.

#### Governor's rule in J&K

- Normally, President's Rule is imposed after collapse of the state government under **Article 356** of the Constitution.
- But J&K has its own separate Constitution that provides for an intermediary statutory layer in the state.
- As per Article 92 of the Jammu and Kashmir Constitution, Governor's Rule is imposed in the state for a period of 6 months.
- The assembly remains under suspended animation during this period.
- It means the elected MLAs remain in office and legislative assembly continues to exist without the power of legislation.
- The governor assumes the power of legislation during this period.
- Meanwhile, the governor has the power to dissolve the assembly.
- Only if the assembly hasn't been revoked even after 6 months, J&K comes under the President's Rule as per Article 356.

- Hence, the extended term beyond the date of superannuation should be a reasonable period.
- Also, UPSC could consider people who have got clear two years of service left in the office.
- **Removal** - The State government should consult with the State Security Commission and the removal can be done under –
  1. the All India Services (Discipline and Appeal) Rules
  2. conviction in a court of law in a criminal offence
  3. a case of corruption
  4. incapacitation from discharging his duties”.

#### What are the concerns in J&K?

- The government did not explain the “pressing urgency” and the “emergent circumstances” that led to its move.
- It also has not registered any case that could have been cited as a reason for the removal.
- Yet, it has submitted a panel of five officers to UPSC, since the removal.

### 1.6 Law Commission on Personal Laws

#### Why in news?

In its recent consultation paper, the Law Commission proposed certain reforms in family laws and gave its view on Uniform Civil Code (UCC)

***Mere existence of difference does not imply discrimination, but is indicative of a robust democracy.***

#### What are the observations made regarding UCC?

- **Uniformity** - Difference does not always imply discrimination in a robust democracy.
- So a unified nation does not necessarily need to have “uniformity.”
- Cultural diversity cannot be compromised to the extent of preserving uniformity.
- As, uniformity itself cannot become a threat to the territorial integrity of the nation.
- **Secularism** - Secularism could not contradict the plurality prevalent in the country.
- The term ‘secularism’ has meaning only if it assures the expression of any form of difference.
- This diversity, both religious and regional, should not get subsumed under the louder voice of the majority.
- However, discriminatory practices within a religion should not hide behind that faith to gain legitimacy.

#### What is the marriage age proposal?

- The Law Commission has advocated making 18 the marriageable age for all communities and genders.
- The age of majority and the age of voting, among other indicators of adulthood, stand at 18.
- Given this, there is no rationale for differential treatment in the case of marriage age.
- The present age of 21 for men merely affirms the stereotype that the wife should be younger.

#### What are the other recommendations?

- **Polygamy** - It suggested making polygamy a criminal offence and applying it to all communities.
- This is not recommended owing to merely a moral position on bigamy, or to glorify monogamy.
- It rather emanates from the fact that only a man is permitted multiple wives, which is unfair.
- Some of the other recommendations with regards to personal laws include:
  - i. decriminalising adultery
  - ii. making adultery a common ground for divorce
  - iii. simplifying the ‘no-fault’ divorce procedure
  - iv. introducing ‘irretrievable breakdown’ as a ground for dissolving any marriage

- The panel also suggests abolition of the 30-day notice period for civil marriages.
- This is to prevent its misuse by those against inter-caste and inter-religious marriages.
- It also suggests division of property equally after divorce.
- Besides, it recommends removal of illnesses that can be cured or controlled from possible grounds of divorce.

#### **Why is it reasonable?**

- Changes have been put forward to give equal treatment to children and parents of any gender.
- As per the juvenile law principle, the child's best interest is the 'paramount consideration'.
- This has been taken up by the Law Commission for universal application.
- The Commission's stand against the Uniform Civil Code is against the Directive Principles of State Policy.
- However, in a world that increasingly emphasizes on cultural diversity, this is justifiable.
- It has upheld equality, non-discrimination, avoidance of taboos and social assumptions.

### **1.7 Code of Conduct for Members of Legislature**

#### **Why in news?**

Rajya Sabha Chairman has urged political parties to evolve a consensus on the code of conduct for members of legislatures.

#### **What is the present state of Code of Conducts?**

- A Code of Conduct for members of Rajya Sabha has been in force since 2005.
- However, there is no such code for the Lok Sabha.
- A code for Union ministers was adopted in 1964, and state governments were advised to adopt it as well.
- A conference of Chief Justices in 1999 resolved to adopt a code of conduct for judges of the Supreme Court and High Courts.
- The 15-point 'Re-instatement of Values in Judicial Life' was adopted.
- It recommended that serving judges should maintain an air of "aloofness" in their official and personal lives.

#### **What is the case with Rajya Sabha?**

- The first step was the constitution of Parliamentary Standing Committees on Ethics in both Houses.
- The Committee came into place in Rajya Sabha in 1997.
- It was to oversee the moral and ethical conduct of the Members.
- It was also tasked to examine the cases referred to it with reference to ethical and other misconduct of Members.
- The First Report of the Ethics Committee was adopted in 1999 and its framework was reiterated in subsequent reports.
- The Fourth Report was adopted by Rajya Sabha in 2005.
- A 14-point Code of Conduct for members of the House has been in force since then.
- These include the following:
  1. In case of conflict between personal interests and public trust, members should resolve it, with private interests subordinated to the duty of public office.
  2. Members should ensure that their and members of their immediate family's private financial interests do not come in conflict with the public interest
  3. In case of any such conflict, it must be resolved without compromising the public interest.
  4. Members should never expect or accept any fee, remuneration or benefit for a vote given or not given by them on the floor of the House. This would apply to

- i. introducing a Bill
  - ii. moving a resolution or desisting from moving a resolution
  - iii. putting a question or abstaining from asking a question
  - iv. participating in the deliberations of the House or a Parliamentary Committee
- Besides, the Rules of Procedure and Conduct of Business in the Council of States specifies some provisions.
  - It mandates maintaining a 'Register of Member's Interests' in such form as may be determined by the Ethics Committee.
  - This shall be available to members for inspection on request.
  - This is also accessible to ordinary citizens under the RTI Act.

### What is the Code in Lok Sabha?

- The first Ethics Committee in Lok Sabha was constituted only in 2000.
- The issue has been raised in every Lok Sabha since then, but has not been taken to its conclusion.
- The Report of the Ethics Committee was presented to the Speaker in 2014.
- It related to the amendments to the Rules of Procedure and Conduct of Business in Lok Sabha.
- Its recommendations were included in the report of the Rules Committee of Lok Sabha.
- It said that the Ethics Committee shall formulate a Code of Conduct for Members.
- Also, the committee shall suggest amendments or additions to the Code of Conduct from time to time.
- The matter has since been pending with the Ethics Committee.
- The Rules Committee report also recommended that the Ethics Committee make suggestions on
  1. the nature of Members' interests to be declared
  2. the form of Register of Members' interest to be maintained for Members of Lok Sabha
- This matter, too, is under consideration of the Ethics Committee.

### 1.8 Supreme Court on Criminalisation of Politics

#### Why in news?

A five-judge Bench of the Supreme Court led by the CJI recently gave its judgement on criminalisation of politics.

#### What are the highlights of the verdict?

- **Parties** - The Supreme Court directed political parties to publish online the pending criminal cases of their candidates.
- Rapid criminalisation of politics cannot be arrested by merely disqualifying tainted legislators.
- Cleansing politics from criminal elements begins only with purifying political parties itself.
- As, political parties are the central institution of India's democracy.
- They play a central role in the interface between private citizens and public life.
- They act as a channel through which interests and issues of the people are represented in Parliament.
- **Parliament** - It urged the Parliament to bring a "strong law" to cleanse political parties of leaders facing trial for serious crimes.
- Parliament should frame a law that makes it obligatory for political parties to remove leaders charged with "heinous and grievous" crimes.
- Parties must refuse ticket to offenders in both parliamentary and Assembly polls.
- The Bench made it clear that the court cannot legislate for Parliament by introducing disqualification to ban such candidates from contesting elections.
- **Candidates** - The court directed that candidates should disclose their criminal past to the Election Commission in "block letters."

- Candidates should make a full disclosure of the criminal cases pending against them to their political parties as well.
- The parties, in turn, should put up the complete details of their candidates on their websites for public view.

### What are the references made?

- The verdict referred to the views of various other bodies and provisions in current legislations, as follows:
- **Law Commission** - The commission had pointed out that political parties have been chiefly responsible for criminalisation of politics.
- Instead of politicians having links to criminal networks, as earlier, persons with extensive criminal backgrounds are now entering politics.
- In the 10 years since 2004, 18% of candidates contesting either national or State elections had criminal cases against them.
- **CIC** - The judgement quoted the earlier efforts to bring political parties under the Right to Information regime.
- It also referred to observations made by the Central Information Commission (CIC) to describe political parties' position in democracy.
- CIC noted that it is the political parties that form the government, man the parliament and run the governance of the country.
- A political party, not respecting democratic principles in its internal working, is less likely to respect governance principles of the country.
- It is therefore necessary to introduce internal democracy, financial transparency and accountability in the working of political parties.
- **N.N. Vohra Committee** - The Court mentioned the 1993 Mumbai bomb blasts.
- The N.N. Vohra Committee, set up after the blasts, studied the problem of criminalisation of politics.
- The report said that the blast was a result of the nexus among criminal gangs, police, politicians and bureaucrats.
- It mentioned how money power was first acquired through real estate.
- It was then used to develop a network of muscle power by building up contacts with bureaucrats and politicians.
- The criminal network was virtually running a parallel government.
- **RPA** - The Representation of the People Act does disqualify a sitting legislator or a candidate on certain grounds.
- However, there are no provisions regulating the appointments to offices within the party.
- A politician may be disqualified from being a legislator, but may continue to hold high positions within the party.
- He/she can thus continue to play an important public role which he/she has been deemed unfit for by the law.
- Convicted politicians may continue to influence law-making by controlling the party and fielding proxy candidates in legislature.

## 2. GOVERNMENT ACTS, AND POLICIES AND INTERVENTIONS

### 2.1 Statutory Recognition of Trade Unions

#### Why in news?

Union government has proposed to grant statutory recognition to TUs by amending the Trade Unions Act, 1926 (TU Act).

#### What is the status of Trade unions in India?

- The trade union movement in India, for various reasons, has been characterised by a multiplicity of unions.



- Hence, a tripartite national body determines the membership criteria for designating trade union organisations as central trade union organisations (CTUOs).
- On the basis of this process, certain unions are deemed 'recognised'.
- Trade unions with a verified membership of five lakh spread over at least four States and four industries as on December 31, 2002 were given the status of CTUOs by the Office of the Chief Labour Commissioner (Central), as per the 2002 exercise, currently there are 13 CTUOs.

### What is government's plan on trade unions?

- The Centre proposes to grant statutory recognition to TUs by amending the Trade Unions Act, 1926 (TU Act), so that other central and state ministries take them seriously.
- The proposed Section 28-A in the TU Act would require the Centre and the States to provide for statutory recognition of trade unions.
- The amendment provides that in the event of any dispute over recognition by the Central or the State governments, it will be decided by an authority, and by means provided by the appropriate government.

### What are the concerns with the proposal?

- The TU Act merely provides for voluntary registration of trade unions, and not for their statutory recognition by employers for collective bargaining purposes.
- Despite demands by trade unions and employers, statutory recognition by employers does not exist in the Act.
- In the absence of statutory union recognition and bargaining obligation, any minority union can vitiate industrial relations in a firm either on its own or by connivance with employers.
- The proposal also completely ignores the serious "allegations and complaints" made by various CTUOs that the Labour Ministry has been carrying out several labour reforms without consulting them.

## 2.2 Activists Arrest - Supreme Courts' Mandate

### Why in news?

The Supreme Court (SC) reserved its verdict on the plea challenging arrests of five human rights activists.

### How did the case proceed?

- The activists were accused of Maoist links by the Pune police in connection with the Bhima-Koregaon violence case.
- The Supreme Court intervened and granted them the rare relief of remaining in house arrest while it examines the charges against them.
- The petitioners have questioned the motivation for the police raids on the residences of the activists and a few others.
- They want those arrested to be released and also demand an independent investigation.

### What are the contradictory stances?

- **Centre** - The Maharashtra and Union governments have sought to defend the arrest and prosecution.
- They claim that the case was based on incriminating evidence seized during the probe.
- The Centre argues that it was probing a terrorist conspiracy involving Maoist insurgents and their urban supporters.
- **Activists** - There is a counter-argument that the arrests were a disguised crackdown on political dissent in the country at present.
- They argue that it was motivated against the ideology or the political views of those under investigation.

### What is the legal mandate?

- The power of arrest is conferred on the police to be employed with discretion and deliberation.
- However, it is certainly not a tool of oppression and harassment for prosecuting authorities or the government of the day.



- Section 41 of the CrPC, the law that empowers the police to arrest people without warrants, is reasonably stringent.
- It demands that some conditions be met, including that such arrests be carried out to prevent -
  - i. commission of further offences
  - ii. tampering of evidence
  - iii. influencing of witnesses
- Also, Art 22 of the Constitution guarantees certain protection against arrest and detention in certain cases.
- The Supreme Court has also emphasised that arrests should never be a hasty response to an allegation or a commission of an offence.

### **What lies before the Court?**

- The Court's intervention has been truly extraordinary and raises the bar for protection of personal liberty.
- Observations that “dissent is the safety valve of democracy” and “personal liberty cannot be sacrificed at the altar of conjecture” indicate the court's thinking.
- But the Supreme Court has to examine some fundamental questions at the intersection of criminal procedure and constitutional law.
- Under Article 32, individuals may directly approach the Supreme Court for redressal of violation of their fundamental rights.
- So it is now for the Court to determine the scope of Article 32 in the activists case.
- Another question is if the court should intervene when the liberty of citizens and their right to dissent are sought to be denied by arbitrary police action.

### **What are the concerns?**

- The use of the power of arrest and the following course of events in the recent days seems to be overriding the due process.
- The accused are being sent to custody after the police oppose bail.
- The restrictions on bail are more severe when booked under the Unlawful Activities (Prevention) Act.
- The prosecution has 180 days to file a charge sheet, a period during which bail is routinely denied.
- And after the charge sheet is filed, bail is extremely difficult to secure as it is dependent on the accused establishing his or her innocence.
- In this prosecutorial ecosystem, jail succeeds in defeating bail request almost every time.
- In contrast, magistrates, who are empowered to refuse remand and grant bail, continue to issue orders mechanically.
- It is time to ensure that the chain of events of arrest, custody, and remand follow each other only by due process.

## **2.3 Misuse of Unlawful Activities Prevention act**

### **Why in news?**

Several human rights activists, communist thinkers, poets and Dalit voices are being detained under the UAPA act recently.

### **What are its draconian provisions?**

- The Act introduces a vague definition of terrorism to encompass a wide range of non-violent political activity including political protest.
- The Act empowers the government to declare an organisation as "terrorist" and ban it.
- Even being a member of such a proscribed organisation becomes a criminal offence.
- It **deprives** the accused of the **right to bail** and this made them to live long under detention.

- The NCRB Statistics indicate that 67 % of the cases under the act end up either in acquittal or discharge of the persons accused.
- The act allows police to remand for over 30 days as opposed to the 14 days under the IPC.
- It also gives leave to the prosecution to file a charge sheet in 180 days rather than the usual mandate of 90 days.
- The Act contains no sunset clause and provisions for mandatory periodic review.

#### What is the SC's directive?

- Supreme court set the scope and ambit to Article 19 in the context of sections 123 and 124 of the IPC, in the matter of **Kedar Nath vs. State of Bihar** (1962).
- This case provided the scope within which a citizen is legally permitted to voice their protest against a government or organise opposition to it even for a constitutional purpose.
- The Supreme Court clarified that the freedom of speech has three components: **Discussion, advocacy and incitement**.
- The court says, only when discussion and advocacy reach the level of incitement not just in words but deeds to provoke people to violate the law, it falls under Section 124 A of the IPC.
- Hence recent convictions of 'reading socialist or communist literature must be inciting violence', without evidence, is in fact an **extra-legal act** of violence by the state upon the citizen.

#### What should be done?

- The Constitution of a democratic and decolonised country could not have read any differently because the basis of true freedom is socialism, as propounded in Article 39.
- Criminalising the mere espousing of socialist or communist ideology under the UAPA is patently unconstitutional as the objective is neither illegal nor unconstitutional.
- It casts a duty upon the judiciary to ensure that the arrest itself is based on cogent and irrefutable evidence.
- Else, it poses a greater threat to the sovereignty and integrity of India than the people being arrested under this Act.

### 2.4 Successful implementation of Maharashtra's RERA act

#### Why in news?

Maharashtra Real Estate Regulatory Authority (MahaRERA) came into effect recently.

#### What are the underlying provisions?

- Real Estate (Regulations and Development) Act 2016 mandates all States to establish a regulatory authority to deal with the issues arising from transactions in real estate market.
- On these lines Maharashtra established MahaRERA and the entire State is covered under it.
- MahaRERA makes it mandatory for all ongoing commercial and residential projects to be registered with it.
- Only registered developers or promoters in the State are allowed to sell, book or advertise their projects.
- Without a registered sales agreement, no developer can accept more than 10% of the cost as advance payment from a buyer.
- In case of delay, the promoters are mandated to pay interest to the buyers for every month of delay over the advance payment.
- Also, all the registered projects across the State will be uploaded on an online map so that buyers can view and scrutinise the projects under construction before visiting the site.

#### How it serves as a model for other states to follow?

- **Accountability** - An individual can view projects online to know the status of their development and their expected date of completion.
- **Transparency in transactions** - With online fee payment and registration, number of registered projects, granted permissions and the registered and resolved complaints can be viewed easily.



- **Usage of GIS** - Through this, buyers can look at projects available in their area of interest, its details as well as social amenities (schools, transportation facilities, hospitals) in the vicinity.
- **Rehabilitation** - With the discussion on bringing the rehabilitation component of redevelopment projects under its ambit, truly affordable houses for urban poor or slum dwellers can be ensured in the city.
- **Establishment of judicial benches** -
  1. MahaRera has given a time frame of 60 days to dispose of cases.
  2. Around 90% of the complaints relate to delayed possession, which attracts very stringent fines (up to a jail term) under the MahaRera Act.
- All these measures prove that a regulated real estate market can be a win-win for all, which can be emulated by other states in their respective jurisdictions.

## 2.5 Pradhan Mantri Annadata Aay SanraksHan Abhiyan (PM-AASHA)

### Why in news?

The Centre recently launched the Pradhan Mantri Annadata Aay SanraksHan Abhiyan (PM-AASHA) to ensure better prices for farm produce.

### What is PM-AASHA?

- The three schemes that are part of AASHA are:
  - i. the Price Support Scheme (PSS)
  - ii. the Price Deficiency Payment Scheme (PDPS)
  - iii. the Pilot of Private Procurement and Stockist Scheme (PPPS)
- These three components will complement the existing schemes of the Department of Food and Public Distribution.
- They relate to paddy, wheat and other cereals and coarse grains where procurement is at MSP now.
- **PSS** - Under the PSS, physical procurement of pulses, oilseeds and copra will be done by Central Nodal Agencies.
- Besides, NAFED and Food Cooperation of India will also take up procurement of crops under PSS.
- The expenditure and losses due to procurement will be borne by the Centre.
- **PDPS** - Under the PDPS, the Centre proposes to cover all oilseeds.
- The difference between the MSP and actual selling/modal price will be directly paid into the farmer's bank account.
- Farmers who sell their crops in recognised mandis within the notified period can benefit from it.
- **PPSS** - In the case of oilseeds, States will have the option to roll out PPSSs in select districts.
- Under this, a private player can procure crops at MSP when market prices drop below MSP.
- The private player will then be compensated through a service charge up to a maximum of 15% of the MSP.

### What is the need?

- The reach of the current MSP procurement system is very poor both in terms of geography and the crops covered.
- Recently, the Centre announced a hike in MSPs for several Kharif crops.
- It said, it will pay farmers the cost of production (as determined by CACP) plus a 50% 'profit' while procuring.
- However, this works well only for paddy, wheat, and select cash crops where there is direct procurement by the industry.
- The government-driven procurement is almost nil in crops such as oilseeds, thereby defeating the purpose of MSPs.
- Besides, due to various other factors, there is increasing farmer unrest across the country.

- Prices of key agricultural commodities have fallen below their MSP (minimum support price).
- The AASHA scheme thus tries to address the gaps in the MSP system and give better returns.
- It also promises to plug the holes in the procurement system.

#### What are the possible benefits?

- AASHA points to an innovative, MSP-plus approach to the problem of non-remunerative prices.
- The different components would cover the gaps in the procurement and compensation mechanism for crops.
- It will also help revive the rural economy by assuring better income to farmers.
- With better prices across crops, the new scheme may ensure crop diversification and reduce the stress on soil and water.
- In the current physical procurement, government agencies end up stock-piling foodgrains.
- This results in incurring storage costs and significant wastage and leakages as well.
- So if effectively implemented, the AASHA scheme will result in savings for the Centre.
- As, there is no need for going through the hassle of physical procurement, storage and disposal.

#### What are the challenges and possible ways out?

- **PDPS** - The experience of Madhya Pradesh which implemented the PDPS under the Bhavantar Bhugtan Yojana last year
- Ground level checks revealed that traders plotted with each other and depressed the prices at mandis.
- They forced farmers to sell at lower prices and pocketed the compensation from the government.
- Many small and marginal farmers are unable to sell their produce under the Bhavantar scheme.
- They face the double burden of lowered price and no compensation.
- So the key here will be the implementation as failure to create a system of checks and balances can derail them.
- **PSS** - The PSS would be easier to implement, with nodal agencies doing the procurement.
- However, providing funds would be a key challenge for the Centre.
- The state governments consider it financially burdensome.
- If all States apply to NAFED/FCI for procurement of oilseeds or pulses, the agencies will fall short of funds.
- The states may also find it hard to implement it from the current kharif marketing season, which begins soon.
- The Centre needs to figure out how to handle procurement and disposal efficiently.
- **PPSS** - The PPSS may work, but private procurers may be wary of the Centre's delayed payments.
- To ensure that AASHA works, the Centre first needs to break the trader lobbies at mandis.
- This could be done by widening the competition by inter-linking mandis.
- e-NAM promises to do so, but, States need to be proactive in undertaking regulatory reforms.

#### NAFED

- National Agricultural Cooperative marketing Federation of India (NAFED) was established in 1958.
- It is registered under the multi state co-operative societies act.
- Its objective is to promote co-operative marketing of agricultural produce to benefit the farmers.

#### FCI

- The Food Corporation of India was set up under the Food Corporation's Act 1964, with the following objectives -
  - i. effective price support operations for safeguarding the interests of the farmers
  - ii. distribution of foodgrains throughout the country for public distribution system
  - iii. maintaining satisfactory level of operational and buffer stocks of foodgrains to ensure National Food Security

## 2.6 UGC's Surgical Strike Day Circular

### Why in news?

University Grants Commission has sent a circular to the vice-chancellors of the 900-odd universities regulated by it.



### What is the circular on?

- UGC has urged universities and colleges to mark September 29, designated as the Surgical Strike Day by the present regime.
- This is to commemorate two years of Indian armed forces' surgical strikes in Pakistan Occupied Kashmir in 2016.
- It asks them to ensure students “pledge their support for the armed forces” via paper and digital letters.
- All institutions with NCC units will have to organise a special parade.
- After this, the NCC commander will address students on the modalities of border protection.
- Universities/colleges will have to organise interactions with former members of the armed forces.

### What is the rationale?

- It is claimed that this would make students appreciate the role of the armed forces.
- They would understand how privileges of citizenship for civilians and army-men flow alike from a robust defence apparatus.
- Students get sensitised about the sacrifices made by the armed forces.

### What are the concerns?

- **UGC** - The law assigns the UGC with all matters academic and administrative in the higher education ecosystem.
- It is to be soon replaced with the Higher Education Commission of India.
- The change of roles is a proof of how UGC has failed to carry out its mandate.
- UGC has surrendered its independence by claiming that it has only given instructions in accordance with a “government directive”.
- UGC, failing to ensure Indian universities figure among the world’s or Asia’s best, is signing off as a mere tool of competitive politics.
- **Nationalism** - It is contested that observing a Surgical Strike Day is geared more towards political ends.
- Moves such as “walls of valour”, tanks in campuses, etc, amount to unwarranted militarisation of academic spaces.
- It conflates the nation and nationhood with the nation-state.
- It thus breeds political allegiance rather than the intended patriotism/nationalism.
- It, in turn, suppresses the legitimate criticism of the nation-state.
- The said objectives could be sourced through ways that do not involve celebrating any particular military action.
- The UGC circular sets a dangerous precedent as it has nothing to do with higher education, let alone be under the UGC’s remit.

## 2.7 National Digital Communications Policy-2018

### Why in news?

The Union Cabinet has recently approved the National Digital Communications Policy-2018 (NDCP-2018).

### What is the policy for?

- The new telecom policy has been formulated in place of the existing National Telecom Policy-2012.
- It comes with a view to cater to the modern needs of the digital communications sector of India.
- Its objective is to facilitate India’s effective participation in the global digital economy.
- The policy aims to ensure digital sovereignty, and the objectives are to be achieved by 2022.

### What are the key features?

- The government aims to provide universal broadband connectivity at 50 Mbps to every citizen.
- It has kept a target of providing 1 Gbps connectivity to all Gram Panchayats by 2020 and 10 Gbps by 2022.
- (Right now, average broadband speeds in the country are 5-6 Mbps).
- The policy will work towards ensuring connectivity to all uncovered areas.
- Measures will be taken to attract investments of \$100 billion in the Digital Communications Sector.
- The policy includes the objective of training one million manpower for building New Age Skill.
- It also aims at expanding the Internet of Things ecosystem to 5 billion connected devices.
- Establishing a comprehensive data protection regime for digital communications that safeguards the privacy, autonomy and choice of individuals is also a goal.
- It will thus enforce accountability through appropriate institutional mechanisms, to assure citizens of safe and secure digital communications infrastructure and services.
- As part of the new Policy, the Telecom Commission is to be re-designated the “Digital Communications Commission”.

### What are the concerns in the sector?

- **Investments** - Annual investments by mobile phone companies are in the region of around \$10 billion annually, which the government aims to increase significantly.
- But it is to be noted that the telecom industry is, mostly, in deep trouble.
- India's top telecom company, Bharti Airtel, features in Credit Suisse's list of stressed companies.
- **Levies** - The government is ambitious in plans with 5G, IoT, M2M and other technologies.
- But the policy has still not cut the very high levels of government levies in this regard.
- India's levies, including the 18% GST, range from 29-32% as compared to just an 11% VAT rate in China.
- **Spectrum prices** - There are also no significant plans in cutting high spectrum prices.
- While 100% of spectrum put on auction in 2015 remained unsold due to high spectrum prices, this was as high as 59% in 2016.
- No auctions could take place in 2017 or 2018 due to telcos being cash-strapped.
- Resultantly, revenues accruing to the government from the sector have fallen by around 37% in just the last two years.
- **Finances** - The precarious finances would mean an unhealthy position in terms of repayment of bank loans.
- More worrying is the ability of telcos to make good their spectrum payment obligations from earlier auctions.
- There is not much likelihood of this improving in the immediate future.
- **Facilities** - Little progress has been made in providing right-of-way for connecting telecom towers with optic fibre.
- Neither is there a progress in coming up with a sensible policy for the critical E and V bands.
- (Spectrum in E and V band can ease work of telecom operator from laying optical fiber cable, and help them in providing last mile connectivity.
- Data through E and V band can be transmitted with speed of around 1,000 MB per second).
- Given these, getting the telecom back on track requires a lot more work on addressing the financial and policy issues.

#### Internet of Things (IoT)

- It is the network of physical devices, vehicles, home appliances, and other items embedded with electronics, software, sensors, actuators, and connectivity.
- This enables these things to connect, collect and exchange data.
- It creates opportunities for more direct integration of the physical world into computer-based systems, resulting in efficiency improvements, economic benefits, and reduced human exertions.

### 3. SCIOAL ISSUES

#### 3.1 Supreme Court Verdict on Adultery

##### Why in news?

The Supreme Court has removed provisions on adultery in IPC and CrPC, and subsequently decriminalised adultery.

*The “beauty” of the Constitution is that it includes “I, you and me”.*

##### What is the ruling on?

- Under Section 497 of the IPC, a man had the right to initiate criminal proceedings against his wife’s lover.
- Under Section 198(2) of the CrPC, the husband alone could complain against adultery.
- The court has now struck down both these provisions and has decriminalised adultery.
- Nevertheless, adultery will continue as a ground of divorce and, therefore, remain in civil law.

##### How did Section 497 evolve?

- The First Law Commission of 1837, under Lord Macaulay, had not included adultery as a crime in the original IPC. It was only a civil wrong.
- The Second Law Commission in 1860, headed by Sir John Romilly, made adultery a crime but spared women from punishment.
- This was due to the conditions in which they lived - child marriage, age gap between spouses, and polygamy.
- The drafters of the IPC looked at this as being sympathetic to women, and also viewed men as the real perpetrators.
- In 1954, the Supreme Court too treated Section 497 as a special provision made in favour of women.
- This was made valid in exercise of the state’s powers under Article 15(3) of the Constitution.
- In 1988, the court upheld Section 497 by saying only an “outsider” is liable and not the woman.
- This exemption is basically a “reverse discrimination in favour of women”.

##### What is the Court's rationale in decriminalising?

- **Anomalies in law** - An adulterous relationship did not constitute an offence if a married woman had her husband’s consent.
- A wife could not prosecute her husband or his lover for violating the "sanctity of the matrimonial home".
- Only a husband could prosecute the man with whom his wife had a sexual relationship.
- Moreover, if the husband had an affair with an unmarried woman, divorcee or widow, it was not an offence of adultery.
- **Rights** - The ability to make choices is a fundamental facet of human liberty and dignity.
- Autonomy in matters of sexuality is intrinsic to a dignified human existence.
- But Section 497 restricts women of the ability to make these fundamental choices.
- It is also violative of Article 14 (equality) and Article 15 as it discriminated on grounds of sex and punishes just men.
- **Attitude** - The “ancient notions” of the man being the seducer and woman being the victim is no longer the case today.
- The court observed that the husband is neither master of his wife, nor does he have legal sovereignty over her.
- The archaic Section 497 of the IPC is thus arbitrary -
  - i. in punishing only men for adultery
  - ii. in treating a woman as her husband’s property
- Besides these, the court also took note of global decriminalisation of adultery.

### What is the significance?

- The Court did not equalise the right to file a criminal complaint, by allowing a woman to act against her husband's lover.
- It instead preferred putting an end to the Victorian-era morality itself.
- It is thus a significant step towards rights-based social relations, instead of a state-imposed moral order.
- Taking forward the judicial precedents, the law makers should now play a proactive role in amending such regressive laws.

### 3.2 SC Verdict on Women's Entry into Sabarimala Temple

#### Why in news?

The Supreme Court, in a recent judgement, allowed women, irrespective of their age, to enter Kerala's Sabarimala temple..

#### What is the ruling?

- In a 4-1 majority, the court struck down provisions of the Kerala Hindu Places of Public Worship (Authorisation of Entry) Rules, 1965.
- The Rules banned women between the age of 10 and 50 from entering the Sabarimala temple, a practice in place for centuries.
- The judgment came over a clutch of petitions challenging the ban, which was upheld by the Kerala High Court.

#### What is the SC's rationale?

- **Religious Rights** - The Constitution protects religious freedom in two ways:
  - i. protects an individual's right to profess, practise and propagate a religion
  - ii. assures protection to every religious denomination to manage its own affairs
- The Sabarimala temple case represented a conflict between -
  - i. the group rights of the temple authorities in enforcing the presiding deity's strict celibate status
  - ii. the individual rights of women in 10-50 age group to offer worship there
- The Travancore Devaswom Board (TDB) had argued that they form a denomination and hence be allowed to make rules.
- The court instead ruled that Ayyappa devotees do not constitute a separate religious denomination.
- It held that prohibition on women is not an essential part of Hindu religion, and hence the court can intervene.
- The judgement establishes the principle that individual freedom prevails over professed group rights, even in matters of religion.
- **Social notions** - The judgement relooks at the stigmatisation of women devotees based on a medieval view of menstruation as symbolising impurity and pollution.
- So much so, exclusion based on the notion of impurity is a form of untouchability.
- Also, the argument that women of menstruating age could not observe the 41-day period of abstinence failed to make sense.
- The court noted that any rule based on segregation of women pertaining to biological characteristics is unconstitutional.

#### What was the dissenting Judge's remark?

- Justice Malhotra was the lone woman on the bench who had a dissenting view.
- She noted that what constitutes essential religious practice is for the religious community to decide and not the court.
- Notions of rationality cannot be brought into matters of religions.

- Balance needs to be struck between religious beliefs on one hand and Constitutional principles of non-discrimination and equality on the other.
- She also stated that the present judgment would not be limited to Sabarimala but will have wide ramifications.
- So issues of deep religious sentiments should not be ordinarily interfered into by the Court.

### Why is Sabarimala case unique?

- Lord Ayyappan of Sabarimala is worshipped as a celibate god.
- Pilgrims are expected to practice celibacy and abstinence during the 41-day vratam (pious observances).
- Sabarimala stands out among Kerala's temples spaces for its accommodation of all devotees irrespective of religion and caste.
- It has thus helped the shrine administrators to evade the rights test - in this case, that of women of a particular age group.
- The unique and site-specific tradition also kept it outside the purview of the historic temple entry protests.
- The Travancore Devaswom Board is thus likely to file a review petition after securing support from other religious heads.

### 3.3 Ordinance on Triple Talaq

#### Why in news?

The Union Cabinet has cleared an ordinance that makes talaq-e-biddat, or instant triple talaq, a criminal offence.

#### What are the key provisions?

- Instant triple talaq will now attract a maximum jail term of three years.
- The new law has some safeguards, including bail to the accused before the start of trial.
- So, instant triple talaq will continue to be a "non-bailable" offence i.e. the police cannot grant bail at the police station.
- However, the accused can approach a magistrate for bail even before trial.

### Key provisions

The Muslim Women (Protection of Rights on Marriage) Bill makes instant triple talaq illegal and imposes a jail term of up to 3 years

**BAIL PROCESS:**  
While the proposed law will remain "non-bailable" — bail cannot be granted at the police station — the accused can approach a magistrate for bail even before the trial



**BY THE AGGRIEVED ALONE:**  
Police can register the FIR only when a complaint is made by the victim (wife) or her blood relative

---

**BURYING THE HATCHET:** If the offence is compoundable, i.e. the husband and wife can have a settlement before a magistrate, the case can be withdrawn

#### Why an ordinance now?

- The Supreme Court, last year, gave a landmark verdict that made triple talaq unconstitutional.
- But despite this, the practice of triple talaq continued unabated across the country.
- Nearly 200 cases had been reported after the Supreme Court banned triple talaq in August 2017.
- Besides, the Lok Sabha has also passed the Muslim Women (Protection of Rights on Marriage) Bill, 2017.
- The Bill seeks to give statutory form to the Supreme Court ruling of 2017.
- But it is pending in the Rajya Sabha due to lack of consensus driven by some controversial provisions.

#### Is the ordinance route reasonable?



- Already, serious objections were raised to some provisions of the Bill passed by the Lok Sabha.
- Also, there is an ongoing debate on the desirability of criminalising instant triple talaq.
- Given this, the matter required more elaborate deliberation.
- On the other hand, due to Opposition concerns, the government proposed significant changes to dilute the provisions.
- Despite a notice for these amendments being given, the matter was not taken up in the Rajya Sabha in the last session.
- The Bill has eventually been deferred to the next session of Parliament.
- Given these, the rationale for the government to take the ordinance route remains disputable.
- Also, mere lack of consensus in the Rajya Sabha is not a good enough reason to promulgate an ordinance.
- It could even amount to subversion of the parliamentary process.
- As, the Bill has been passed in one House and the other is likely to consider it in an amended form.

#### **What are the favourable changes though?**

- Despite the dispute, the changes to be introduced through the ordinance do address some concerns with the original Bill.
- It makes the offence cognisable only if a police complaint is filed.
- [It is to be made by the woman, or one related to her by blood or marriage, against whom triple talaq has been pronounced.]
- The offence has been made compoundable i.e. the parties can settle the matter between themselves.
- It also provides that a magistrate may grant bail to the husband after hearing the wife.
- These amendments will restrict the scope for misuse by preventing third parties from setting the criminal law in motion.
- They will also leave open the possibility of the marriage continuing, by allowing bail and settlement.
- Nevertheless, the core issue remains - whether a marital wrong, essentially a civil matter, should lead to prosecutions and jail terms.
- Also, it is self-contradictory for a law to both allow a marriage to continue (as triple talaq is invalid) and propose a jail term for the offending husband.

#### **3.4 I&B Advisory on the Term 'Dalit'**

##### **Why in news?**

Union Information and Broadcasting Ministry's advisory has asked the media to avoid using the term 'Dalit'.

##### **What is the rationale?**

- The advisory comes in compliance with orders of the Bombay and Madhya Pradesh High Courts.
- The courts directed the Centre and state governments to refrain from using the term 'dalit'.
- This is because the term found no mention in the Constitution of India or any statute.
- Earlier, the Social Justice and Empowerment Ministry issued a directive to use only the term 'Scheduled Castes' in all official matters.
- So the Nagpur Bench of the Bombay High Court directed the I&B Ministry to consider making a similar directive to the media.
- The court did not actually go into the merits of using the term.

##### **What is the National Commission for SC's view?**

- A decade ago, the National Commission for Scheduled Castes disfavoured the use of 'Dalit'.
- The commission felt it was unconstitutional.

- This is because belonging to a 'Scheduled Caste' is a legal status.
- It is conferred on members of castes named in a list notified by the President under Article 341.
- Therefore, 'Scheduled Caste' is the appropriate way to refer to this class of people.

#### Why is the term 'dalit' significant?

- The term has evolved over a period of time and has come to symbolise different things in different contexts.
- In the past, Dalits were referred to as 'untouchables'.
- But the official term during British rule was 'depressed classes'.
- Mahatma Gandhi sought to remove the stigma of 'pollution'.
- He thus used the term 'Harijans', or 'children of god'.
- In the course of time, the community rejected this appellation as patronising.
- It was only some decades ago that they began to refer to themselves as Dalits.
- 'Dalit' literally means 'downtrodden' or 'broken'.
- But it is a word loaded with emotions reflecting the struggle of a community to reassert its identity.
- "Dalit" is primarily an anti-caste, anti-Brahminical, anti-capitalistic, anti-oppression, anti-superstition rebellion.
- It advocates the claim to the rights that were denied to them for centuries.
- "Dalit" is an open category with a call to all those who believe in the project of annihilation of caste.
- There are literary works under the 'dalit literature' tag, which have had revolutionary impacts.

#### What are the disputes?

- **Media** -The I&B Ministry's advisory specifies as "for all official transactions, matters."
- This is confusing as the media's references to the community are usually beyond official contexts.
- It is unreasonable to oppose the use of the term 'Dalit' in the media and in non-official contexts.
- **Right** - Significantly, 'Dalit' is now a nomenclature chosen and used by the community itself.
- It must be recognised that 'Dalit' is an expression of self-empowerment.
- Communities should have the right to decide what they wish to call themselves.
- Thwarting this is the principal factor that goes into maintaining caste supremacy.
- So the directive would be an attempt to deny the powerful and emotive meaning of the word 'Dalit'.
- **Identity** - Some Dalits prefer staying with the constitutionally-decided terminology of 'Scheduled Caste'.
- They feel it inappropriate to be "lower" when they have reached great heights in their careers.
- These are the ones who constantly seek to escape their stigmatised identities but are unable due to their known caste status.
- So, many refrained from using the word Dalit long before.
- They preferred identities such as Ambedkarite, Ravidassi or Valmiki to identify with an exceptional individual.
- **Term** - The government should indeed proceed with a workable nomenclature such as Scheduled Caste.
- However, Scheduled Caste is more a bureaucratic normalisation.
- It has no capacity to change the structures of social oppression.
- "Dalit", on the other hand, evokes emotions of change and positivity.

### 3.5 Kerala Migration Survey

#### Why in news?

Kerala Migration Survey, conducted by the Centre for Development Studies, released its report recently.

#### What are the findings of the report?

- There are 2.1 million emigrants from Kerala across the world, of which 15.8 per cent are women.
- The emigration from the state has shown a fall of 11.6 per cent in the last five years.

- It found that there has been a reduction of 3 lakh emigrants in 2013-18, which is one-tenth of the number of emigrants in 2013.
- The report attributes the following reasons for the dip in migration-
- **Demography** - Demographic advances have decreased population in the migration-prone age group (15-29 years) as Kerala attained replacement level of fertility as early as 1987.
- **Wages** - Wages in Gulf countries have not improved after the global economic crisis.
- It has led to lower savings and demotivating people to migrate.
- Kerala has the highest wage rate in the informal sector in India, and hence wages in Kerala have increased compared to other states.
- **Price rise** - Prices of oil have been declining since 2010 impacting the growth of the Gulf economy.
- Other sectors like Construction too are not as vibrant as it used to be.
- **Nationalisation** - Policies such as Nitaqat and family taxes in Saudi Arabia provides a non-conducive environment for current and prospective migrants.
- Increasingly, native youth are trained and employed in occupations that once went to migrants.
- **Skilled migration** - Of the total emigrants, 42.3% are graduates or have a higher qualification.
- Investment in education have made Keralites skilled and made them migrate to the developed economies in the West.
- People are also increasingly migrating to the West through the Gulf.

#### How emigration helped Keralites?

- Emigration and remittances have played a predominant role in enabling households in Kerala to meet their basic needs and to invest in assets.
- Migrants use over 40% of their remittances on purchasing land, construction and repayment of housing mortgage.
- One in every five households in Kerala has a migrant.
- Among religious groups, one in three households is a Muslim, one in five households is a Christian, and one in 10 households is a Hindu.
- The estimated total remittances to Kerala are Rs 85,000 crore.
- Remittances to the state have increased with Keralites in the Gulf climbing the social ladder and earning higher wages.
- With depreciating rupee, more can be remitted to families in Kerala than earlier.
- Hence, Even Non-emigrant families plan to send someone as a livelihood strategy to cope with the loss of assets and livelihoods.
- But the trend has reversed with emigration from Kerala is falling and **return migration** is on the rise.
- The long history of migration from Kerala to the Gulf is in its last phase.

## 4. GOVERNANCE

### 4.1 Governance Issues - Public sector banks

#### What is the issue?

Bad loans of public sector banks are Snowballing and it poses a systemic risk to the country's economic system.

#### What are the issues plaguing the PSBs?

- Banks lend longer term loans to large infrastructure projects, although their expertise lies in granting short term working capital loans.
- Senior government officials, with political backing, hold overarching control over banks.
- This has led to poor choice of the top management for the banks and inadequate governance standards.



- RBI's latest **financial stability report** considers the risks of asset quality deterioration and additional capital requirement of banks to be "high".
- This was shown by huge write-offs on PSB's loans, once the firms go in for bankruptcy and the subsequent necessity for huge recapitalisation of the banks.
- Though it creates a substantial fiscal burden, they tend to do it to enable the banks meet their minimum **capital adequacy requirements**.

#### What are the measures taken so far?

- Banks Board Bureau was created to bring about a fundamental change in the selection of top management and governance standards.
- Asset quality reviews was initiated in order to end window-dressing and recognise non-performing assets (NPAs) to **avoid evergreen lending**.
- Large NPAs of over Rs.2,000 crores, once failed to achieve a resolution within 180 days will have to be referred immediately under IBC.
- Also, Project sashakt was introduced as a separate scheme to deal with large defaults.

#### Will Project sashakt be useful in this regard?

- It deals with **online trading of stressed assets**, with defaults above 500 crores.
- Defaulted accounts will be first passed to an asset reconstruction company (ARC).
- ARC will restructure the assets, define haircuts and transfer their ownership to one or more asset management companies (AMCs), which will be funded by sector-specific alternative investment funds (AIFs).
- This makes banks to get paid for the restructured assets while the ownership passes on to the AMC-AIFs.
- Failure to complete the process in 180 days will attract IBC proceedings under NCLT for the stressed company.
- Still it doesn't make much headway, since bank managements become reluctant to agree to substantial haircuts or discounting of their dues.

#### What should be done?

- Around 60% of experts feel that "continuous rise of NPAs and falling governance standards in banks continue to be a cause for concern."
- The RBI says in its **annual report for 2017-18** that over the medium term growth will depend on "resolution of banking and corporate financial stress."
- **Both IBC and Sashakt take care of "continues rise in NPAs" but not "governance standards"**.
- Hence, bad debts will reappear with the government being compelled to recapitalise the banks again.
- That would amount to a systemic risk with fiscal instability and insufficient bank credit becoming a periodic feature in the country.

## 5. HEALTH

### 5.1 HIV and AIDS (Prevention and Control) Act

#### Why in news?

The Human Immunodeficiency Virus and Acquired Immune Deficiency Syndrome (Prevention and Control) Act came into force recently.

#### How does it evolve?

- India has the third largest HIV-infected population with an estimated 2 million people.
- The country aims to decrease new infections by 75% between 2010 and 2020 and eliminate AIDS by 2030.
- India is a signatory to the Declaration of Commitment on Human Immunodeficiency Virus and Acquired Immune Deficiency Syndrome (2001).



- The Declaration aims to secure a global commitment to enhancing coordination and intensification of national, regional and international efforts to combat it in a comprehensive manner.
- The act makes it a legal obligation to protect the privacy of persons with HIV and AIDS.

### What are the provisions?

- **Prohibition** - The Act lists various grounds on which discrimination against persons with HIV is prohibited.
- These include the denial or discontinuation with regard to employment, educational establishments, health-care services, standing for public or private office and insurance.
- It removes HIV testing as a pre-requisite for obtaining employment or accessing health care or education.
- **Right to reside** - It prohibits isolation or segregation of an HIV-positive person.
- Every HIV-positive person, especially minors, has the right to reside in a shared household and use facilities in a non-discriminatory manner.
- It also bars individuals from publishing information or advocating feelings of hatred against HIV positive persons and those living with them.
- **Consent** - No HIV-affected person can be subject to medical treatment, medical interventions or research without informed consent.
- However, informed consent does not include screening by licensed blood banks and medical research that are not meant to determine the said person's HIV status.
- No HIV positive woman, who is pregnant, can be subjected to sterilisation or abortion without her consent.
- **Disclosure** - No person is compelled to disclose his HIV status except by an order of the court.
- A breach of violation attracts a jail sentence of up to two years or a fine of up to Rs 1 lakh, or both.
- **Obligation** - Every establishment is obligated to keep HIV-related information protected.
- The state and Centre must make anti-retroviral therapy and opportunistic infection management available to all HIV-infected people, and ensure wide dissemination of the same.
- Every HIV-positive person is compelled to take reasonable precautions to prevent the transmission of HIV to other persons.
- **Enquiry** - Every state has to appoint one or more Ombudsmen to inquire into violations of the provisions of the Act.
- Failing to comply with the orders of the Ombudsman attracts a penalty of up to Rs 10,000.
- Also, any court cases involving an individual affected with HIV/AIDS is subject to strict protection of individual identity.
- This includes restricting cameras in courtrooms if needed.

### 5.2 Pradhan Mantri Jan Arogya Abhiyan

#### Why in news?

The government rolled out Pradhan Mantri Jan Arogya Abhiyan recently.

#### What is the scheme all about?

- The programme is being touted as the world's largest health protection scheme.
- The scheme has two pillars under it –
  1. **Ayushman Bharat (AB)** - 1.5 lakhs health sub-centres will be converted into health and wellness centres.
  2. **National Health Protection Mission (NHPM)** - Provides health cover of Rs. 5 lakhs per family, per annum, reaching out to 50 crore beneficiaries.
- The benefits of the scheme are portable across the country for secondary and tertiary care hospitalisation.
- Also, a beneficiary covered under the scheme will be allowed to take cashless benefits from any public/private empanelled hospitals across the country.



- **Coverage** - The scheme will aim to target over 10 crore families based on SECC (Socio-Economic Caste Census) database.
- To ensure that nobody from the vulnerable group is left out of the benefit cover, there will be **no cap on family size** and age in the scheme.
- The insurance scheme will cover pre and post-hospitalisation expenses.
- **Funding** - The expenditure incurred in premium payment will be shared between central and state governments in a specified ratio –
  1. 60:40 for all states and UTs with their own legislature.
  2. 90:10 in Northeast states and the three Himalayan states of Jammu and Kashmir, Himachal and Uttarakhand.
  3. 100 per cent central funding for UTs without legislature.
- The states are also free to continue with their own health programmes.
- **Mode of funding** - In a trust model, bills are reimbursed directly by the government.
- Andhra Pradesh, Telangana, Madhya Pradesh, Assam, Sikkim and Chandigarh are the states that will use a trust model for the mission.
- In an insurance model, the government pays a fixed premium to an insurance company, which pays the hospitals.
- Gujarat and Tamil Nadu have opted for mixed mode implementation.

#### What more does it need?

- **Primary care** - The NHPM is pushing for hospitalisation at secondary and tertiary-level private hospitals, while disregarding the need for accessing primary care.
- Hence, households should be made to register at the 1.5 lakh 'health and wellness clinics'.
- It should provide them access to district-specific, evidence-based, integrated packages of preventive health care.
- It will also result in early detection of cancers, diabetes and chronic conditions, mostly needing long-term treatment and home care.
- This will further minimise the demand for hospitalisation.
- Investment in primary care would thus reduce the overall cost of health care for the state and the consumer.
- **Private sector** - The National Health Policy 2017 proposed "strategic purchasing" of services from secondary and tertiary hospitals for a fee.
- Competent health-care providers from private sectors can be roped in and standard treatment protocols and guidelines notified by the government.
- This will rule out potential for any unnecessary treatment, since the fees are getting fixed per episode, and not per visit.
- **Competition** - Health-care providers should be accredited without any upper limit on the number of service providers in a given district.
- The annual premium for each beneficiary would be paid to those service providers, for up to a renewable one year, as selected by beneficiaries.
- This will enhance competition and service quality while keep costs in check.
- Also, District hospitals be upgraded to government medical colleges and teaching hospitals, so that capacities at the district levels be increased.
- **Sectoral co-ordination** - Clean drinking water, sanitation, garbage disposal, waste management, food security, nutrition and vector control under various ministries be brought together to link health with development.
- Swachh Bharat programme could be incorporated in the PMJAY, so that the overall co-operation of all these sectors will reduce the disease burden.



- **Technology** - AI-powered mobile applications will soon provide high-quality, low-cost, patient-centric, smart wellness solutions.
- The scaleable and inter-operable IT platform being readied for the Ayushman Bharat is encouraging.
- Thus, with the integration of prevention, detection and treatment of ill-health, PMJAY would become a well-governed 'Health for All' scheme.

## 6. INDIA AND ITS NEIGHBOURHOOD

### 6.1 BIMSTEC Summit 2018 - Kathmandu declaration

#### Why in news?

The Bay of Bengal Initiative for Multi-Sectoral Technical and Economic Cooperation (BIMSTEC) summit was recently held in Kathmandu, Nepal.

#### What are the major outcomes?

- BIMSTEC comprises of India, Bangladesh, Myanmar, Sri Lanka, Thailand, Bhutan and Nepal.
- The fourth summit of the BIMSTEC was attended by leaders of the seven nations of the grouping.
- The regional grouping's Kathmandu declaration was released at the end of the summit.
- **Terrorism** - The Declaration focussed on backing of terror by state and non-state actors, and transnational organised crimes.
- It described terrorism as a "great threat" to international peace and security.
- It advocated targeting terrorists, terror organisations and networks.
- Besides, it called for identifying and holding accountable states and non-state entities that -
  - i. encourage, support or finance terrorism
  - ii. provide sanctuaries to terrorists
- The declaration did not name any specific country.
- But Pakistan is often accused by its neighbours, including India, of providing safe havens to terrorists.
- **Connectivity** - The declaration underscored the importance of multidimensional connectivity.
- This would be a key enabler to economic integration for shared prosperity.
- **Energy** - An MoU was signed on establishment of the BIMSTEC Grid Interconnection.
- It provides for optimisation of using energy resources in the region.
- It also facilitates promotion of efficient and secure operation of power system.

#### What was India's role?

- The BIMSTEC Region is a meeting point for India's Neighbourhood First, and Act East policies.
- It offers opportunities for connectivity covering trade, economy, transport, digital and people-to-people.
- Indian PM thus made a strong pitch for enhanced regional connectivity.
- India also expressed its commitment to working with the members on combating terrorism and drug trafficking.
- BIMSTEC member states are largely situated between the Himalayas and the Bay of Bengal.
- They hence face frequent natural disasters such as flood, cyclone and earthquake.
- India thus called for "cooperation and coordination" in humanitarian assistance and disaster relief efforts.
- India will also host the International Buddhist Conclave in 2020.
- The BIMSTEC leaders were invited to attend the event as guests of honour.
- India expressed its commitment to enhance its national knowledge network.
- This was in reference to the field of digital connectivity in Sri Lanka, Bangladesh, Bhutan and Nepal.

- India also plans to extend it to Myanmar and Thailand.
- India would set up a Centre for Bay of Bengal Studies at the Nalanda University.
- This is to promote research on art, culture and other subjects in the Bay of Bengal.

## 6.2 Relook at BIMSTEC's Functioning

### What is the issue?

- The fourth BIMSTEC summit recently concluded in Kathmandu, Nepal. Click [here](#) to know more.
- It made notable progress in reforming the structural and procedural framework of the grouping, but concerns remain.

### What are the administrative initiatives?

- BIMSTEC has so far functioned on the basis of
  - i. the Bangkok Declaration of 1997
  - ii. outcomes of the past three summits
  - iii. the Leaders' Retreat in 2016
- So the need for a firm institutional foundation for the BIMSTEC was a long felt one.
- In this context, work has now begun on drafting a charter for BIMSTEC.
- Also, a Permanent Working Committee will be set up.
- This is to provide direction during the period between two summits.
- It will also prepare the Rules of Procedure for the BIMSTEC summits.
- Besides, the Secretariat has been promised additional financial and human resources.
- Efforts at enhancing its role to coordinate, monitor and facilitate the grouping's activities will also be taken up.
- Moreover, the institution has been handicapped due to lack of sound financial back up.
- The leaders thus took the decision to establish the BIMSTEC Development Fund.
- It was agreed to make a push to increase BIMSTEC's visibility and stature in the international fora.
- Currently, there are 16 areas of cooperation between the member states, making it too wide a spectrum.
- To address this, BIMSTEC governments will make efforts to review, restructure and rationalise various sectors.
- They will embark on identifying a few core areas for effective cooperation.
- In this exercise, Thailand has proposed a new strategy of five pillars:
  1. connectivity
  2. trade and investment
  3. people-to-people contacts
  4. security
  5. science and technology
- This will be considered, keeping in mind the individual member states' preferences to certain specific sectors.

### What are the concerns in the outcomes?

- There are at least six legal instruments awaiting finalisation in the BIMSTEC.
- Of this, only one, the Memorandum of Understanding on Grid Interconnection, could be inked in Kathmandu.
- It has been fourteen years since signing the framework agreement on Free Trade Area (FTA).
- However, the leaders could only renew their "commitment to an early conclusion" of FTA negotiations.
- The Thai PM urged participants to accept making BIMSTEC a Free Trade Zone by 2021 as "our common goal".

- But this did not find a place in the summit declaration.
- The grouping had established its Energy Centre in 2009, but it was still struggling for the “early operationalisation”.
- The Kathmandu Declaration has spelt out a number of measures to secure the objective of 'connectivity'.
- However, the Motor Vehicle and Coastal Shipping Agreements are delayed and needed more time for finalisation.
- There was a call for making the BIMSTEC summit an annual affair.
- But leaders chose a “timely holding of Summit”.
- The next summit's timing will only be determined by the degree of progress ministers and officials achieve in the course of time.

#### **What are the ongoing developments?**

- There are plans to revitalise the Business Forum and the Economic Forum.
- This is welcome, if they help in fully engaging business and industry.
- Cooperation in the security domain has been progressing satisfactorily.
- A new initiative is the arrangement for meeting of home ministers.
- This will be in addition to annual meetings of national security advisers.
- Besides, the first meeting of army chiefs is due to take place in Pune, India soon.
- There are also plans to establish forums for parliamentarians, universities, cultural organisations and the media community.
- With all these in place, BIMSTEC can become a dynamic, effective and result-oriented organisation.
- But the progress and efforts in the coming period will be crucial in its further development.

### **6.3 India at the UNGA**

#### **What is the issue?**

- India called off the planned meeting with Pakistan in New York ahead of the United Nations General Assembly's annual session.
- In this backdrop, it is essential that India looks beyond Pakistan and engage with structural changes in the international system.

#### **How have the roles changed?**

- There was a time when the voices of both Pakistan and India mattered on the world stage.
- Pakistan was a key member of the Western alliance system in Asia.
- It rightly saw itself as a pragmatic Islamic nation capable of exercising influence in the Middle East.
- It had the prospects of acting as a bridge between America and China.
- But today, Pakistan's diminished diplomacy drags on the Kashmir issue.
- India's political voice too mattered a lot at the UN, long back, when its economic weight was rather limited.
- India is now on its growing economic prominence and expanding global footprint.
- But despite this, India seems obsessed with a few issues rather than engage with the larger international issues.

#### **Why has India become so?**

- India persists with the quest for a permanent seat at the UN Security Council, when all indications are that it is unlikely to happen.
- It has also devoted too much energy in the pursuit of the international convention against terrorism.
- However, this is unlikely to do very much in addressing India's security challenges.

- More so, the UN resolutions are honoured by nations more in breach than in observance.
- What have benefited India are key partnerships on counter-terrorism. E.g. with the US and Arab Gulf partners
- This is more workable than the endorsement of general principles under multilateralism.

### Why should India look beyond Pakistan?

- India's relationship with Pakistan is not in its god phase at present.
- India blamed 'Pakistan-based entities' for the recent killing of three special police officers in Kashmir.
- The prospect of a diplomatic encounter between India and Pakistan has remained a focus in many multilateral gatherings.
- For more than two decades now, this question seems to sensationalize the Indian public interest in multilateral gatherings.
- The strained relations have deepened the inability of the two countries to engage with the larger global issues.
- So if India looks beyond Pakistan, terrorism and a UNSC seat, it could discuss much more in the UN.

### What are the global issues to be resolved?

- **Sovereignty** - The foremost is balancing between the questions of sovereignty and multilateralism.
- Defending sovereignty was a key priority in India's UN diplomacy since the end of the Cold War.
- This is now being revived by the developments in regards with the decision of U.S. President Donald Trump.
- E.g. withdrawal from the Paris agreement, the UN Scientific and Cultural Organisation, the UN Human Rights Council, etc
- The essence of Trump's "America First" has been the promise to liberate US from the "globalist trap".
- He insists that he will not let multilateral organisations restrain America's pursuit of its national interests.
- Given these, sovereignty will once again be the dominant theme in this year's session.
- **Global Trade** - Trump is threatening to pull out of the WTO and choking its dispute-settlement mechanism.
- Key trading nations are already beginning to respond with proposals for reform.
- If it does not change, the WTO and the international order in trade may not survive the Trump era.
- **Middle East** - Trump is making big moves in the Middle East that breaks away from the conventional thinking on the region.
- He has ended the 2015 nuclear agreement with Iran negotiated by the Obama administration.
- He is promising to press for a change in "regime behaviour" in Iran.
- There is also effort on constructing a new Middle East Security Alliance of Arab nations threatened by Iran.

### What lies before India?

- The geopolitics of the Gulf region is undergoing unprecedented change.
- This is a significant concern for India as it has massive economic and political stakes there.
- A similar issue is the world trading system and the nature of multilateralism.
- India's diplomatic engagements at the UN should be about crafting a new strategy to address these challenges.

## 7. BILATERAL RELATIONS

### 7.1 India-U.S. 2+2 Dialogue

#### Why in news?

- The 2-plus-2 dialogue between India and the United States concluded recently in New Delhi.
- Click [here](#) to read the previous part.



### What is the 2+2 dialogue?

- The 2-plus-2 dialogue was held between Indian External Affairs and Defence Ministers, and their US counterparts.
- The dialogue aimed to provide a positive, forward-looking vision for the India-U.S. strategic partnership.
- It also aimed at promoting synergy in diplomatic and security efforts.
- It was resolved in the meet to continue the meetings in this format on an annual basis.

### What are the key outcomes?

- **Cooperation** - The Ministers committed to work together on regional and global issues.
- It was further decided to establish secure communication (hotlines) between the two Ministers of the countries.
- This would help maintain regular high-level communication on emerging developments.
- **Defense** - Strategic importance of India's designation as US's Major Defense Partner (MDP) was reaffirmed.
- It was committed to expand the scope of India's MDP status.
- India recently being offered license exception under the Strategic Trade Authorization (STA-1) was mentioned.
- It was also agreed to explore other means for expansion in two-way trade in defense items and defense manufacturing supply chain linkages.
- Significantly, the Communications Compatibility and Security Agreement (COMCASA) was signed.
- This is likely to open the way for sales of more sensitive US military equipment to India.
- It facilitates interoperability between the two countries' armed forces.
- This will give India access to function on high-end secured and encrypted communication equipment installed on US origin military platforms.
- The Ministers also announced their readiness to begin negotiations on an Industrial Security Annex (ISA).
- This would support closer defense industry cooperation and collaboration.
- The two sides also committed to the creation of a new, tri-services exercise.
- It was also agreed to increase personnel exchanges between the two militaries and defense organizations.
- Specific mention was made of a further expansion in bilateral maritime cooperation.
- The Ministers thus committed to start exchanges between the U.S. Naval Forces Central Command (NAVCENT) and the Indian Navy.
- It underscored the importance of deepening maritime cooperation in the western Indian Ocean.
- **Technology** - The unique role of technology in the India-U.S. defense partnership was acknowledged.
- It was agreed to continue the co-production and co-development of defence projects through the Defense Technology and Trade Initiative (DTTI).
- In this regard, the conclusion of a Memorandum of Intent was welcomed.
- This was between U.S. Defense Innovation Unit (DIU) and Indian Defence Innovation Organization – Innovation for Defence Excellence (DIO-iDEX).
- **Terrorism** - Intent to increase information-sharing efforts on known or suspected terrorists was announced.
- It was also decided to implement UN Security Council Resolution 2396 on returning foreign terrorist fighters.
- They also committed to enhance their ongoing cooperation in multilateral fora such as the UN and FATF.
- The countries reaffirmed their support for a UN Comprehensive Convention on International Terrorism.
- This will advance and strengthen the framework for global cooperation against terrorism.
- Both called on Pakistan to ensure that its territory is not used to launch terrorist attacks on other countries.

- Pakistan was also called on to expeditiously bring to justice the perpetrators of the Mumbai, Pathankot, Uri, and other cross-border terrorist attacks.
- India and U.S. also reaffirmed on their cooperation to ensure a stable cyberspace environment.
- **Indo-Pacific** - The aim was spelt out as advancing a free, open, and inclusive Indo-Pacific region, based on recognition of ASEAN centrality.
- Respect for sovereignty, territorial integrity, rule of law, good governance, free and fair trade, freedom of navigation and overflight was also mentioned.
- Support on sustainable debt financing practices in infrastructure development in the Indo-Pacific region was agreed.
- The common principles for the region articulated in the India-U.S. Joint Statement of June 2017 were reaffirmed.
- **Afghanistan** - The two sides expressed support for an Afghan-led, Afghan-owned peace and reconciliation process.
- Shared commitment to a united, sovereign, democratic, inclusive, and peaceful Afghanistan was reiterated.
- The U.S. acknowledged India's economic and development assistance to Afghanistan.
- **North-Korea** - India welcomed the recent U.S.-North Korea summit.
- India and U.S. pledged to work together to counter North Korea's weapons of mass destruction programs.
- **Nuke** - The United States welcomed India's accession to the Australia Group, the Wassenaar Arrangement, and the Missile Technology Control Regime.
- It also reiterated its full support for India's immediate accession to the Nuclear Suppliers Group.
- Both sides looked forward to full implementation of
  - i. the civil nuclear energy partnership
  - ii. collaboration between Nuclear Power Corporation of India Limited (NPCIL) and Westinghouse Electric Company for the establishment of six nuclear power plants in India
- **People-to-People Ties** - The Ministers recognized the importance of increasing bilateral trade, investment, innovation, and job creation.
- The free flow of ideas and collaboration in health, space, oceans, and other areas of science and technology were also accentuated.

#### What are the concerns?

- While trade was addressed, India did not receive a clear-cut assurance of its GSP (Generalised System of Preferences) status being restored.
- It neither received any waivers on steel and aluminium tariffs imposed by the U.S.
- Instead, U.S. officials said that they expect India to increase imports of American oil and gas as well as aircraft.
- This is in order to wipe out the trade surplus India enjoys.
- It is unclear if the Centre has agreed to this anti-free market demand, but it remains a concern.
- The U.S.'s other demand, to "zero out" oil imports from Iran by November, is also contentious.
- It would hurt India economically at a time when the dollar is strengthening and fuel prices are going up.
- It would also have implications in terms of India's substantial engagement with Iran.
- No public statement was made on U.S.'s actions on India's investment in the Chabahar port once U.S.'s full sanctions begin in November.

- Also, U.S. officials gave no firm commitment that India would receive a waiver to purchase Russian hardware, beginning with the S-400 missile system.
- India must work with the U.S. in the coming future to ensure that the 2+2 dialogue did not benefit only the U.S.
- India needs to ensure that it does not sacrifice its regional geo-political and broader global economic interests.

## 7.2 LEMOA Fully Operationalised

### Why in news?

It was officially announced that the Logistics Exchange Memorandum of Agreement (LEMOA) has been fully operationalised.

### What is LEMOA?

- LEMOA is a tweaked India-specific version of the Logistics Support Agreement (LSA) of the U.S.
- India had concluded the LEMOA with the U.S. in 2016.
- It is one of the foundational agreements, as referred to by the U.S.

### What are the foundational agreements?

- These are the agreements that the U.S. signs with countries with which it has close military ties.
- India had signed only three of these four agreements -
  1. General Security Of Military Information Agreement (GSOMIA) in 2002
  2. Logistics Exchange Memorandum of Agreement (LEMOA) in 2016
  3. Communications Compatibility and Security Agreement (COMCASA) in 2018
- The last one remaining is the Basic Exchange and Cooperation Agreement for Geo-spatial Cooperation (BECA).

### What is the significance?

- LEMOA gives both countries access to designated military facilities on either side.
- It can be availed for the purpose of refuelling and replenishment in primarily four areas.
- These are: port calls, joint exercises, training, and humanitarian assistance and disaster relief.
- The biggest beneficiary of the LEMOA is the Indian Navy as it interacts and exercises the most with foreign Navies.
- Also, fuel exchange gets subsumed into the LEMOA and does away with the need for a separate agreement.
- So far, the three services had individual accounts from which payments were being made during military exercises.
- Under the LEMOA, the standard operating procedures (SOPs) are applicable to all three services.
- LEMOA also gains more significance following the recent signing of COMCASA.
- The COMCASA (Communications Compatibility and Security Agreement) is meant for secure encrypted communications.
- All these improve the interoperability between the militaries and allow transfer of high-end military platforms.

## 7.3 Challenges in concluding RCEP

### Why in news?

Trade ministers of 16 countries met in Singapore recently to create the largest economic integration agreement under RCEP.

### What is the outcome of the meet?

- India has made a case that it needs 20 years as a “grace period” to implement certain parts of the RCEP agreement, which is yet to be decided.

- India also emphasised on the inclusion of services under goods in the economic agreement, which has been accepted.

#### What importance does RCEP attach?

- Countries in RCEP want tariffs eliminated for nearly 10 % of the traded products to gain enhanced market access in goods.
- The reason behind this lies in the **export-oriented** nature of these countries and the prospect of a **huge market** in China and India.
- Within that, India has become a particularly attractive market with its transparent external sector policies than China.
- Also, with US turning towards trade protectionism, RCEP countries shift their attention towards sustaining their regional trade.
- Thus, a “comprehensive, high quality” agreement in the form of economic liberalisation between countries is under negotiation.

#### What are the challenges involved?

- **Competition** - India has a massive trade deficit with China and hence lowering or eliminating import duties may flood the Indian markets with Chinese goods.
- **Flexible Tariff** – WTO allows increase in actual applied tariffs on particular products as long as they remain its bound rates.
- India’s applied tariffs were usually lower than the bounded tariffs for most products, hence it effects tariff hikes within WTO rules.
- Such flexibilities are allowed in any of the free trade agreements (FTAs), like the RCEP.
- **Concerns on the lines of FTA** – India concluded negotiations on three FTAs, with ASEAN, Japan and Korea a decade back.
- However, India’s agriculture and manufacturing sectors are not in a position to compete against their counterparts from the FTA-partner countries.
- As a result, India has faced an ever-increasing **trade imbalance**, with the deficit stood at just over \$31 billion in 2017-18.
- The situation is no different under RPEC as trade deficit with the RPCs was \$104 billion out of India’s total trade deficit of \$162 billion the same year.

#### What should India do?

- India must try to extract meaningful concessions for enhancing market access for its services sector.
- It should also ensure the economic viability of small farmers and small-scale industries in the face of relentless import competition.
- With possible conclusions on negotiations by next year, the RCEP would become the largest FTA opening market for over 3 billion people.

## 8. INTERNATIONAL ISSUES

### 8.1 North American Free Trade Agreement

#### Why in news?

U.S. and Canada pulled back from a standoff regarding the North American Free Trade Agreement (NAFTA).

#### What is NAFTA?

- NAFTA came into effect in 1994.
- It is a successor to the Canada-United States Free Trade Agreement.
- NAFTA is a trilateral arrangement that includes Mexico.
- It led to lower tariffs on most goods and services traded among the countries.

- It encouraged big business to reorganise supply chains around the North American continent.
- This eventually made industries such as automobiles globally more competitive.
- Overall, regional trade has expanded more than three times since NAFTA came into effect.
- The agreement has also led to a range of rules on food safety, intellectual property rights and the settlement of disputes.
- It has generally deepened the political relationship among the three signatories.

#### **What is the contention?**

- There is difference of opinion on the specific benefits NAFTA has brought to the US.
- Trump continued to blame NAFTA for the trade deficit with Mexico.
- He also linked it to the loss of American jobs.
- The US President intended to sign a revised trade agreement with Mexico.
- It was conveyed that revised agreement would be signed with Canada if it was willing.
- Recently, the three countries began talks on overhauling the agreement.
- They sought to address issues around labour, environment, etc.
- Besides, changes necessitated by the expansion of new online businesses were also addressed.
- It was soon announced that a deal had been reached with Mexico that would make NAFTA more fair.
- But Canada was not showing any signs of consensus.
- It was thus said the US administration would decide whether to have Canada or sign a separate deal.
- The tussle thus threatened to lead to Canada's exclusion from the NAFTA.

#### **What is the US-Mexico deal?**

- The updated deal between Mexico and the US includes some new clauses.
- These cover intellectual property, digital trade and investor disputes.
- It was agreed that for a product to be tax-free, 75% of it must be manufactured in the two countries.
- This is a higher floor than in the existing agreement.
- The deal also says that 40-45% of every vehicle must be built by workers who earn at least \$16 per hour.
- This is to ensure that firms don't find it profitable to move production to Mexico.
- It's because wages are lower in Mexico than in the US, which might lead to skewed location preferences.

#### **Why is Canada opposing?**

- The US and Canada have been unable to agree on several issues.
- These include:
  - i. barriers that Canada places on the import of dairy
  - ii. Canadian rules on movies, books and other media
  - iii. the mechanism to settle trade disputes
- Canada wants to ensure its publishing and broadcasting industries are not overrun by bigger US rivals.
- It also wants to ensure that dairy imports did not pull down prices for its own farmers.
- Another area of disagreement is the so-called Chapter 19 of NAFTA.
- It deals with the mechanism for dispute resolution.
- It allows the signatory countries to challenge one another's anti-dumping and countervailing duty decisions before a committee.
- The committee has members from each country that is part of the dispute.



- Notably, in the mid-2000s, the dispute resolution panels ruled repeatedly against the US.
- This eventually strengthened Canada's negotiating position.
- The US has reportedly eliminated the Chapter 19 provision in the agreement with Mexico.
- But Canada has insisted on retaining the provision.
- It is to be noted that anti-dumping or countervailing duties can be challenged at the WTO as well.
- However, the fact is that countries sometimes ignore WTO decisions.

#### **What now?**

- Despite Trump's tough stance, the US negotiators have decided to keep negotiating.
- This is primarily due to the fact that the US Congress wanted any revised deal to include both Canada and Mexico.
- This is because Canada is the major export destination for 36 US states.
- So there are demands that the decisions “do no harm” to the deal.

## **8.2 Land Distribution in South Africa**

#### **What is the issue?**

- South Africa's land redistribution issue has gained focus with a recent tweet of the U.S. President.
- It is imperative at this juncture to understand this crucial issue which is worsening South Africa's inequality.

#### **What is the recent happening?**

- U.S. President recently contended that white farmers are being killed on a large scale in South Africa, and farms and lands are being expropriated.
- This has led to renewed racial tensions within and outside South Africa.
- In response, South African President Cyril Ramaphosa made it clear that South Africa was a profoundly unequal society.
- He pledged to address this inequality resulting from land dispossession during the colonial and Apartheid eras.

#### **What is the land redistribution issue?**

- The inequality of land distribution in South Africa is rooted in the colonial 1913 Natives Land Act.
- The Act reserved almost 93% of the land for the white minority in South Africa.
- It thus legalized the historical dispossession of the African population.
- The 1936 Native Trust and Land Act slightly decreased that share to 87%.
- Nevertheless, the vast inequality of land ownership persists even today.

#### **What after democracy?**

- The constitution adopted in 1994 made possible the transition from apartheid to democracy.
- It was specified that land should be restituted to those dispossessed during the colonial and Apartheid eras.
- It stipulates that there should be just and equitable compensation for expropriated land.
- This inspired the “willing-seller, willing-buyer” land redistribution policy of previous governments.
- Under such a market-based approach, the government would purchase and redistribute land to the dispossessed people.
- However, progress has been slow for many reasons.
- These include property owners' refusal to sell, exorbitant prices, and inadequate dispute resolution mechanisms.
- The slow pace of the implementation led to doubts on the effectiveness and constitutionality of the policy.



### What is the current scenario?

- **Growth** - The annual growth rate of the country is poor and unemployment hovers around 25%.
- South Africa has one of the highest levels of inequality in the world.
- **Land** - 72% of farms and agricultural holdings are owned by whites.
- But notably the whites make up only 8.2% of the population.
- Black South Africans comprise around 80% of the population, but own just 4% of the land.
- Clearly, land ownership patterns remain skewed against the black majority.
- But official statistics on land holdings among racial groups are contested on their details.

### Why is land distribution crucial?

- The World Bank, in its recent study, noted that inequality in South Africa was exacerbated by the
  - i. limited titling of property
  - ii. limited access to finance
  - iii. weak property rights
  - iv. limited land valorization
  - v. lack of sustainable investment, etc
- WB has rated unequal distribution and access to land as South Africa's second greatest obstacle to reducing poverty, after skill deficits.
- A well-managed system of land distribution is thus crucial to redressing the country's economic inequality.
- Productive land use among the poor is inevitable to curb rising poverty levels.
- It is also essential to reversing the high unemployment and inequality conditions.
- The government is thus considering certain land policy reforms.

### What are the recent proposals?

- The parliament has passed a bill in 2016 under the presidency of Jacob Zuma.
- It was aimed at ending the "willing-buyer, willing-seller" approach to land reform.
- It enabled the government to pay at adjudicator value and expropriate land for the public interest.
- In 2017, a resolution to redistribute land without compensation was backed by the parliament.
- The proposals target unutilised land, informal settlements, and abandoned inner-city buildings.
- The implications of these changes for the mining sector could be significant.

### What is the way forward?

- Trump's tweets incorrectly suggest that land distribution process is disorderly and unlawful.
- But certainly, land reform in South Africa is an emotive, complex, and important issue.
- The competing and conflicting interests have to be balanced for the greater good.

## 8.3 Chemical Weapons Convention Act of 2000

### What is Chemical Weapons Convention Act?

- CWC aims to eliminate an entire category of weapons of mass destruction by prohibiting the development, production, acquisition, stockpiling, retention, transfer or use of chemical weapons by States Parties.
- States Parties must take the steps necessary to enforce that prohibition within their jurisdiction.
- As a state party to the CWC India enacted Chemical Weapons Convention Act in 2000.
- Chemical Weapons convention (CWC) is also called as Convention on the Prohibition of the Development, Production, Stockpiling and use of Chemical Weapons and on their Destruction.



### What are the provisions of the Act?

- The Act defines chemical weapons and empowers the Centre to set up a **National Authority**.
- The Act defines chemical weapons as toxic chemicals, including munitions and devices, specifically designed to cause death or other harm.
- The definition includes in its ambit “any equipment” specifically designed for employing chemical weapons.
- **Power of Inspection** (Section 19): This section of the act gives full power of inspection of any person who is engaged in the production, processing, acquisition, consumption, transfer, import, export or use of any toxic chemical or discrete organic chemical.
- **Enforcement Officers** (Section 9): It gives the Centre power to appoint any of its own officers, other than those of the National Authority, as enforcement officers.
- **Restriction on Transfer** of Any Toxic Chemical (Section 16): the Act contains provisions for restriction on transfer of any toxic chemical or precursor.
- The restriction clause notes that no person shall transfer to, or receive from, a state which is not a party to the Convention any toxic chemicals.
- Inspections extend to any place where any chemical weapon, old chemical weapon, or abandoned chemical weapon is located, or where a chemical weapon production facility exists.

### What are the functions of National Authority?

- The National Authority will act as the “national focal point” for effective communication with organizations and other state parties on matters relating to the Convention and for fulfilling the obligations of the country.
- The Authority’s functions include regulation and monitoring the development, production, processing, consumption, transfer or use of toxic chemicals or precursors as specified in the Convention, among others.
- The Authority is also empowered to issue directions and even close down facilities which violate the Convention.
- It can also collaborate with other countries to seek or give assistance and protection against the use of chemical weapons.
- The Central Government is vested with the power to constitute a necessary Committee to overlook the functioning of the National Authority.

## 8.4 Elimination of Nuclear Weapons

### Why in news?

United Nations has been annually observing the International Day for the Total Elimination of Nuclear Weapons on 26<sup>th</sup> September.

### What is the significance of Nuclear weapons elimination day?

- The decision to observe International Day for the Total Elimination of Nuclear Weapons was taken in 2013, by the United Nations General Assembly (UNGA).
- It called for the “urgent commencement of negotiations in the Conference on Disarmament of a comprehensive convention on nuclear weapons to prohibit their possession, development, production, acquisition, testing, stockpiling, transfer and use or threat of use, and to provide for their destruction”.
- This day is observed to make people aware across the globe about the threats posed by nuclear weapons and nuclear proliferation.

### How the idea of nuclear weapons changed in recent times?

- Since the US dropped atomic bombs on Hiroshima and Nagasaki during the Second World War, the international order has fundamentally changed.
- The potency of this weapon encouraged great powers like the erstwhile USSR to join the nuclear arms race, thereby increasing their nuclear stockpiles manifold.



- Historically, it has been observed that when a nation state possesses nuclear weapons, it is less likely to go to a full scale war with another state.
- The reason being that these weapons have the capability to annihilate entire populations and the radioactive residue left behind leads to hazardous health consequences on future generations as well.
- As a result, no nation state takes the risk of going to a war with a nuclear weapon state.
- The power of a nuclear weapon state actually lies in not using the weapon, but in having it because once a state uses such weapons, it can risk the wrath of the entire international community.
- Thus now nuclear weapons aren't weapons for offence, but for deterrence.

## G.S PAPER III

### 9. ECONOMY

#### 9.1 Understanding 8.2% GDP Growth

##### Why in news?

The GDP estimates show that the economy grew at the rate of 8.2 % in the first quarter of 2018 (April-June).

##### What is the anomaly in it?

- Despite the impressive growth, a feel-good sentiment has been largely missing.
- There is also confusion on how to interpret the growth while the economy faces various serious issues like
  1. the depreciating rupee,
  2. rising bank bad loans, or NPAs,
  3. a trade deficit that has shot up to a five-year high,
  4. and retail fuel prices that are inching up every day.

##### What is the reason for the anomaly?

- **Base effect** - A part of the reason for this is the low base, which has produced a statistical effect, making growth appear faster.
- **Sectoral differences** - Some parts of the economy grew faster, while a few others did not.
- Agricultural GDP growth quickened as two successive years of good rains improved farm produce.
- Manufacturing and construction industries, that were dealt a severe shock by demonetisation, recovered.
- Services growth slowed. The sector includes trade, hotels and transport, and the financial, real estate and professional services as well as public administration and defence services.
- Services sector largely represents the economic sentiment of the urban and semi-urban Indians.
- Hence the poor performance of services probably explains the sense of disconnect with the growth estimate being expressed in some quarters.
- **Consumption** - Private consumption expenditure growth has quickened, relative to the preceding quarter, as well as compared to the same quarter last year.

##### So what drives the current GDP growth?

- The current GDP growth is largely driven by consumption.
- There are further suggestions that a consumption boom is in the making.
- This is possibly driven by the government salary and pension hikes including at the State level.
- Consumer industries are also reporting robust rural sales growth.

##### What is the need for caution?

- **Unsustainability** - The high growth in the years preceding the 2008 global financial crisis was driven by savings and investments.

- The global economic downturn disrupted this trend and hence investments slowed down.
- There were expectations that this would revive, but the economy is still not out of the investments slowdown.
- So the GDP growth continues to be powered by consumption, and not investments.
- This is a cause for concern as the consumption-led growth is sustainable only up to a point.
- **Quarterly estimates** - The estimates for the upcoming quarters will not enjoy the benefit of the low-base effect.
- Moreover, the first quarter estimates are early indicators, which may not necessarily be representative of the remaining months.

### What are the challenges ahead?

- Sustaining the 8%-plus growth rate beyond the first quarter requires a far more pro-active policy push.
- The rising international crude prices and the risk of inter-country trade wars are some of the global challenges.
- All these are likely to keep the current account deficit, and therefore the rupee, under stress.
- A depreciating rupee could further inflate retail fuel prices.
- The central and state governments can cut the taxes on them but this would increase the fiscal deficit.
- RBI can hike interest rates to arrest the rupee's depreciation.
- But that will further increase the cost of borrowing, including the government's debt.
- Reforms to promote growth with appropriate contributions from all the sectors of the economy are essential.

## 9.2 Bank of Baroda, Dena Bank & Vijaya Bank Consolidation

### Why in news?

The government recently proposed the amalgamation of state-owned Bank of Baroda (BoB), Dena Bank and Vijaya Bank.

### How did it take shape?

- **Committee** - A committee headed by former RBI Governor M Narasimham was appointed in 1991.
- It made the first call for pruning the number of government-owned banks which was over two dozen.
- It recommended having three or four large banks including State Bank of India that could be positioned as global banks.
- **Capital infusion** - In 2016, the government decided to pursue consolidation after first pumping in more capital and to put back on track many banks weighed down by a huge pile of bad loans.
- To facilitate this, the government last year put in place an Alternative Mechanism on bank mergers.
- By this, an inter-ministerial panel was to be set up to supervise merger proposals and approve them.
- The first such proposal is the recent Bank of Baroda (BoB), Dena Bank and Vijaya Bank consolidation.

### What is the rationale?

- It has been recognised for long that having several banks that are majority-owned by the government was not a sensible strategy as they do the same business, and compete for the same set of customers.
- It also meant a lower return on the capital employed by the government.
- There are other factors as well to be taken into account, including -
  - i. changing face of banking marked by technological changes
  - ii. challenges to raising capital that the owner (the government) has to provide periodically
  - iii. the need for consolidation in the sector
  - iv. putting an end to fragmentation
- The government is also emboldened by the experience of the merger of five subsidiaries of the State Bank of India last year.





### What are the possible benefits?

- The amalgamation will create India's third-largest bank.
- It would take form as a business of Rs 14.82 lakh crore and over 9,600 branches across the country.
- There could be synergy in operational efficiency with a large pool of staff in a merged entity.
- It could help boost business, expand reach and offer more services or products.
- On a standalone basis, Vijaya Bank had strength in the South.
- On the other hand, Bank of Baroda and Dena Bank had a stronger base in Western India.
- This would mean wider access for both the proposed new entity and its customers.
- Besides, the move will lead to a lower NPA (non-performing assets) ratio for the new bank.
- The NPA ratios are now 11.04% for Dena Bank, 5.4% for Bank of Baroda and 4.1% for Vijaya Bank.
- This could, in turn, mean lower capital requirements from the government.
- The new bank, with its higher capital base (12.25 %) can have better ability to lend more.

### What are the challenges ahead?

- The real challenge lies in the integration in a new entity, whether in operations or culture.
- It helps that the three banks chosen have a common technology platform.
- This may make it work like in the case of the SBI and its subsidiaries.
- However, human resources can often be a challenge with contrasting HR practices.
- Also, aligning these with employee expectations or aspirations will also test the new management.
- The other major test will be leadership i.e. choosing one of the CEOs to head the new bank and with a reasonable tenure.
- Besides, addressing the concerns of unions and shareholders will be another significant task.

### What are the concerns?

- **Implication** - After the merger announcement, shares of Bank of Baroda and Vijaya Bank fell significantly.
- On the other hand, Dena Bank gained sharply.
- Notably, Dena Bank is the bank in the worst financial situation among the three entities.
- It is currently under the Reserve Bank of India's *prompt corrective action* framework.
- Unlike the other two banks, its shareholders are set to gain from being part of a new bank with greater financial strength.
- But the weaker banks would make an unhealthy impact on the operations of the stronger one.
- Clearly, forced mergers such as the current one make little business sense for the stronger banks.
- **Bad loans** - The merger is part of the government's efforts to consolidate the banking industry to overcome the bad loan crisis.
- Asking healthy banks to take over weak banks appears to be the strategy to handle the bad loans crisis.
- But they are less likely to solve the bad loan crisis that has gripped the banking system as a whole.
- **Shareholders** - A dominant shareholder in the form of the government is dictating critical moves.
- This impacts the minority shareholders as they are left with no say in the matter.

#### Prompt Corrective Action (PCA)

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

- A merger as significant as this one should have been first discussed and approved in the board rooms of the banks concerned.

#### What could be a cautious move?

- Ideally, mergers ought to be between strong banks.
- It is important to ensure that such mergers do not end up creating an entity that is weaker than the original pre-merger strong bank.
- Certainly, mergers are just one way of managing the problem and therefore cannot be discounted totally.
- However, the trick lies in ensuring that the merger fallout is managed prudently.
- Identifying synergies and exploiting scale efficiencies will be crucial here.

### 9.3 Stock Market Volatility

#### Why in news?

Stock indices witnessed an extraordinary swing recently resulting in panic sell-off by investors.

#### What happened?

- The Sensex moved 1,500 points between its high and low during the day and eventually lost around 280 points.
- The Nifty fluctuated between 370 points and lost around 90 points at the end of the day.
- The overall market breadth was extremely weak with almost 2,200 stocks in the red as against only 542 gainers.
- Also, the Sensex to plunge 1,785 points in the five trading days.

#### What is the reason?

- Infrastructure Leasing & Financial Services Ltd. (IL&FS) is an infrastructure development company, which provides finance and loans for major infrastructure projects.
- One of the projects is the Chenani-Nashri tunnel — India's longest road tunnel at 9 kilometers (5.6 miles).
- The company describes itself as the pioneer of public private partnerships.
- IL&FS group of companies has a total consolidated debt of close to Rs 1 lakh crore, and it started to miss deadlines on its debt obligations beginning last week of August 2018.
- Fears grew among the investors that the default problem will spread to other NBFCs, leading to a sharp fall in the stocks of housing finance companies (HFCs) and NBFCs (which operate on borrowed funds).
- With this underlying fear, debt papers of DHFL were sold by DSP Mutual Fund, at the discount rate of 11% in the secondary market. (Normal yield was 10%).
- This was viewed as a precursor to higher borrowing costs for NBFCs.
- Hence investors sold their stocks in housing finance firms, leading to stock market plunge.
- A bunch of algorithmic trades also quickly escalated the magnitude of the fall.

#### Discount Rate

- In finance, discount refers to a situation when a bond is trading for lower than its par or face value.
- For example, if a bond with a par value of \$1,000 is currently selling for \$990 dollars, it is selling at a discount of  $(\$1000/\$990) - 1 = 1\%$ , or \$10. The reason a bond will trade at a discount is if it has a lower interest or coupon rate than the prevailing interest rate in the economy.
- In other words, since the issuer is not paying as high of an interest rate to the bondholder, the bond must be sold at a lower price to be competitive, or else no one would buy it. (**Invsetopedia**).

#### Why IL&FS defaulted?

- Commercial Paper (CP) is an unsecured money market instrument issued in the form of a promissory note with a maximum validity of one year.
- IL&FS have raised a huge amount through CPs.

- But the interest rates have soared to multi-year highs for short-term borrowings.
- Additionally, some of IL&FS's construction projects have faced cost overruns amid delays in land acquisition and approvals.
- Disputes over contracts have locked about 90 billion rupees of payments due from the government.
- These have made IL&FS run short of cash.

#### How did the IL&FS default play out?

- It has already defaulted on around Rs 450 crore worth of inter-corporate deposits to SIDBI and more defaults are likely in the coming weeks.
- Insurance companies, state-owned banks and their provident funds and pension funds, and mutual funds (MFs) have exposure to the debt papers of IL&FS; state-owned banks have also extended term loans to IL&FS.
- Following the defaults, rating agencies ICRA, India Ratings and CARE abruptly downgraded IL&FS and its subsidiary from high investment grade (AA plus and A1 plus) to junk status, indicating actual or imminent default.

#### Could this spill over into the broader market?

- Despite the fluctuations, there was a significant recovery from the lows due to strong institutional buying.
- Hence the fall was believed to be a temporary correction in a bull market.
- However, the panic in the fixed income market due to the IL&FS default has led to a liquidity freeze.

### 9.4 Downgrading IL&FS

#### Why in news?

IL&FS group of companies recently received a credit downgrade from rating agencies ICRA, India Ratings and CARE.

#### What does credit downgrade imply?

- **Rating agencies** - The stretched liquidity position of the group was known before.
- But it took an actual default for the rating agencies to revisit their investment grade ratings.
- The rating agencies repeatedly flagged loan book concentration, high debt levels and the dire financial straits of the group's firms in their reviews.
- But they seem to have pinned their hopes on IL&FS' big-name promoters to bail it out of its troubles.
- This exposes the fragility of the 'structured obligation' in the ratings, to actually weak entities but hailing from large industrial groups, on the faith of a possible rebound in future.
- **Mutual Funds** - The mutual funds failed to restrict their exposures to the high-risk paper to their 'credit risk' funds.
- Fund managers instead parked it with their liquid and low duration funds.
- They also marketed them as low-risk alternatives to savings bank accounts.
- **Banks** - The episode again shows the risks of banks in funding long-gestation projects with short-term money.

#### Debt Instrument

- It is a paper or electronic obligation through which finance companies normally source funds.
- It enables the issuing party to raise funds by promising to repay a lender in accordance with the terms of a contract, and loans from banks.
- Indian NBFCs issue debt instruments like bonds, non-convertible debentures (NCDs), certificates of deposits, commercial papers (CPs), mortgages, leases etc., between a lender and a borrower.
- Debt papers are issued at a specific interest rate linked to the market rate, though interest rates have been rising in recent times.
- CPs and NCDs are two widely used debt instruments used by corporates to raise money.
- The IL&FS group defaulted on CP, which is an unsecured money market instrument issued in the form of a promissory note with a maximum validity of one year.

## 9.5 Estimates committee's report on Non-performing assets

### Why in news?

Parliament's Estimates Committee on public sector banks headed by Raghuram Rajan released its report recently on NPA's.

### What are the contents of the report?

- It says that gross NPAs of banks rose to Rs 10.3 lakh crore in FY18, or 11.2% of advances.
- **Reasons for rising bad loans -**
  1. **Over-optimism** - Banks extrapolate past growth and performance of the companies that made them to **accept higher leverage** in projects.
  2. **Slow Growth** - Domestic demand slowdown after GFC crisis (2008) affected strong demand projections.
  3. **Government decision-making** - Governance problems as in allocation of coal mines, Project cost overruns etc., made projects unable to service debts.
  4. **Loss of Interest** - Banks' **deceptive accounting** by failing to restructure and recognize losses or declare the loan NPA, to make the business look profitable to the shareholders.
  5. **Malfeasance** - Lack of an independent analysis in the system which multiplies the possibilities for undue influence.
  6. **Fraud** - Increase in the number of fraud cases in PSBs.
- **RBI's rationale to introduce schemes**
  1. The **Debts Recovery Tribunals (DRTs)** were set up to help banks recover their dues speedily without being subject to the procedures of civil courts.
  2. The **SARFAESI Act** was setup to enable banks to enforce their security interest and recover dues even without approaching the DRTs.
  3. Yet the recovery was only 13% of the amount at stake and only 25% of these cases were disposed off during a year.
  4. So **CRILC** was created, that includes all loans over Rs. 5 crores, to identify early warning signs of distress in a borrower such as habitual late payments.
  5. **Joint Lenders' forum** was created to decide on an approach for resolution, while giving the opportunity to exit for unconvinced borrowers.
  6. 5/25 scheme was created to establish reliability on projects that have long dated future cash flows.
  7. Strategic Debt Restructuring (SDR) scheme to enable banks to displace weak promoters by converting debt to equity.
  8. All these tools effectively created a resolution system that replicated an **out-of-court bankruptcy**.
- **Importance of recognising NPAs**
  1. To restructure or write down loans, the bank has to recognize it has a problem i.e classify the asset as a Non Performing Asset (NPA).
  2. Only then the bank balance sheet will represent a true and fair picture of the bank's health, as a bank balance sheet is meant to.
- **RBI's role in creation of NPAs**
  1. Bankers, promoters, and circumstances create the bad loan problem.
  2. The RBI is just a referee, not a player in the process of commercial lending.
- **Reason to initiate the Asset Quality Review**
  1. Banks were simply not recognizing bad loans, neither were they following uniform procedures.
  2. Hence, Asset quality review was done to ensure every bank followed the same norms on every stressed loan and to look for signs of ever-greening.
- **Reason for NPAs even after AQR**
  1. Risk-averse bankers
  2. Lethargy of promoters before Bankruptcy Code was enacted, hoping to regain control through a proxy bidder, at a much lower price.
  3. The government's delay on project revival etc

- **Recommendations to RBI**

1. RBI should probably have raised more flags about the quality of lending in the early days of banking exuberance.
2. It should have initiated the new tools earlier, and pushed for a more rapid enactment of the Bankruptcy Code.
3. RBI could have also been more decisive in enforcing penalties on non-compliant banks.

## 9.6 RBI Surplus Transfer to Government

### Why in news?

- RBI has transferred a surplus of Rs 50,000 crore to the central government in FY18.
- It has also made a provision of Rs 14,190 crore and transferred it to contingency fund (CF).

### What are the transfers for?

- Contingency Fund is the fund that the central bank has built over the years.
- This is to meet unexpected exigencies and risks
  - i. from sharp fluctuation in the value of securities held by it
  - ii. from monetary or exchange rate policies of central banks
  - iii. from other systemic risks
- Besides, RBI transfers the surplus generated from its functions to the government at the end of each financial year.
- This is after accounting for any funds transferred to the contingency reserve or the asset development fund.
- It follows July-June financial year.

### What is the recent trend?

- Transfer of surplus to the government has risen by around 63% during the financial year ended June, 2018.
- RBI had transferred a surplus of around Rs 30,600 crore to the government in financial year 2016-17.
- During 2017-18, RBI's balance sheet increased by 9.49% or Rs 3.13 trillion.
- The increase on the asset side was mainly due to rise in foreign investments, and loans and advances.
- On the liability side, the increase was due to increase in notes issued and other liabilities and provisions.
- Domestic assets, foreign currency assets and gold recorded marginal increase from the previous year.

### Why is the CF contribution laudable?

- RBI had been transferring a chunk of its surplus to the contingency fund up to 2012-13.
- However, these transfers temporarily ceased thereafter.
- The transfers resumed from 2016-17 and this prudential policy continues in 2017-18.
- The RBI faces pressure to transfer funds to the Centre, to help bridge the fiscal deficit.
- Despite this, RBI has continued to transfer a portion to the Contingency Fund.
- This year's contribution is also slightly higher than the CF transfers of last year.

### What are the challenges?

- There are heightened worries of turbulence in global financial markets due to the ongoing trade war.
- There is also an explosive political situation in the US.
- There is also the threat of value erosion to currencies of emerging economies.
- Given these, the value of the RBI's foreign currency assets is at a greater risk.

## 9.7 Pension Fund Regulatory Development Authority

### What is the issue?

- PFRDA completes five years of functioning,
- It is imperative at this juncture to reflect on its success and its shortcomings.



## How has the NPS evolved?

- The National Pension System (NPS) was introduced in 2003.
- Concerns of inadequate coverage and fiscal unsustainability of traditional civil-servant pensions led to NPS's creation.
- The NPS was visualised as a defined-contribution pension scheme.
- It had features including individual pension accounts, multiple pension funds, etc.
- Initially, NPS covered only government employees.
- It was extended to all citizens by 2009, barring members of the armed forces.
- Subsequent reforms focused bringing India's vast unorganised sector workforce into the NPS net.
- In this line were introduced a simpler variant of NPS, 'NPS-Lite' in 2010.
- Likewise, the 'Swavalamban' scheme was introduced in 2010.
- Under this, the government co-contributes to the pension corpus of unorganised sector workers not covered by social security schemes.
- Similarly, the 'Atal Pension Yojana' was introduced in 2015.
- In this, the government guarantees a minimum post-retirement monthly pension.
- It also extends co-contribution benefits to unorganised sector workers.

## PFRDA

- The interim PFRDA was established in 2003.
- This was to oversee the National Pension System (NPS), and regulate India's pensions sector.
- The interim PFRDA transitioned into the PFRDA with the passage of Pension Fund Regulatory Development Authority (PFRDA) Act, 2013.
- PFRDA has come a long way, but there are still some gaps in India's pension regulatory framework.
- **Significance** - The PFRDA Act is the linchpin of India's pension regulatory framework.
- The Act is being supplemented by regulations issued by the PFRDA.
- They regulate the functioning of key intermediaries under the NPS framework.
- These include the NPS Trust and the Pension Funds and Points of Presence (PoPs).

## What are the concerns with PFRDA?

- **NPS** - A major concern in India's pension regulatory framework is a widespread lack of clarity.
- E.g. being a regulator of the pensions sector, PFRDA is also responsible for promoting and developing the NPS.
- This gives rise to concerns of a potential conflict of interest.
- It thus requires a clearer delineation of the PFRDA's role, for greater regulatory accountability.
- **NPS Trust** - NPS Trust is a critical intermediary in the NPS framework which -
  - i. holds subscriber funds and assets in its custody
  - ii. implements PFRDA's regulations
  - iii. supervises and monitors other intermediaries
- It does these all remaining under the PFRDA's supervision.
- At present, the NPS Trust and the PFRDA possess overlapping and concurrent powers.
- The powers are in relation to inspecting other NPS intermediaries.
- This again lacks clarity, leading to accountability and conflict of interests concerns.
- **Act** - The foreign shareholding limits for Indian insurance companies are currently 49%.
- Also, the foreign exchange regulations cap foreign shareholding in the pensions sector at 49%.
- But PFRDA Act caps foreign shareholding in Indian pension funds to be one of the higher from the following two -
  - i. 26% of the pension fund's paid-up capital
  - ii. the limits specified for Indian insurance companies under the provisions of the Insurance Act

- The choice from dual percentages as specified in the Act creates unnecessary confusion.
- **Consumer protection** - NPS serves as a universal product securing citizens' retirement incomes.
- But there is an inadequate emphasis on financial consumer protection.
- E.g. the web-based grievance portal for NPS subscribers allows complaints registration only in English.
- There are similar concerns with the PFRDA (Redressal of Subscriber Grievance) Regulations, 2015.
- It fails to specify clear grounds for approaching the office of the Ombudsman, functioning as the grievance redress authority.
- Inadequate attention to consumer protection also reflects in the recent PFRDA (Points of Presence) Regulations, 2018.
- PoPs are intermediaries and help in on-boarding subscribers to the NPS.
- The Regulations require PoPs to maintain confidentiality of subscribers' personal information.
- But the regulations fall short of
  - i. detailing specific standards of care required of PoPs
  - ii. expressly penalising PoPs who fail in protecting confidentiality
- The absence of such safeguards undermines the protection of subscribers' personal information.
- Addressing these gaps and strengthening the underpinnings of India's pensions framework should be a priority.

## 9.8 India Post Payments Bank

### Why in news?

India Post Payments Bank (IPPB) was recently launched by the Prime Minister.

### What is IPPB?

- India Post Payments Bank (IPPB) is a financial service provider that will operate under the country's postal department.
- The government-owned payments bank will be able to accept deposits of up to Rs. 1 lakh from customers.
- But they do not have the rights to use these funds to advance risky loans at higher interest rates.

### What are the features?

- **Accounts** - India Post Payments Bank (IPPB) offers three types of savings accounts—regular, digital and basic.
- A digital savings account can be opened through the IPPB mobile app.
- However, it is valid only till 12 months.
- Within this, it has to be converted into a regular savings account by providing biometric data to the postman.
- A regular and basic account can be opened either through the post office or the postman.
- **Balances** - All three accounts are zero-balance accounts, with no minimum balance rules.
- However, RBI has directed all payments bank account holders to hold not more than Rs 1 lakh in any account at a given point of time.
- So the moment an IPPB account crosses Rs 1 lakh limit, the transaction will be rejected automatically.
- To handle this, IPPB suggests linking a post office savings account with the IPPB account.
- So, any balance in excess of Rs 1 lakh will be transferred to the post office account.
- **Interest rate** - All IPPB accounts attract an interest rate of 4% per annum.
- Calculated on the daily closing balance, the interest rate is paid quarterly.

- **Deposit & withdrawal** - In regular and digital savings accounts, one can withdraw or deposit any number of times.
- In case of a basic savings account, there is a restriction of 4 cash withdrawals monthly.
- For cash deposits and withdrawals, one can approach the nearest post office where the IPPB service is available.
- IPPB accounts do not come with an ATM card and so one cannot withdraw cash from ATMs.
- **Doorstep banking** - Consumers can also call the postman or Grameen Dak Sevaks (GDS) home and make transactions.
- This is done using the QR card that is received with the IPPB account.
- Doorstep banking from IPPB comes at a cost of Rs 25 for cash transactions and Rs 15 for digital transactions.

#### What is the significance of IPPB?

- The primary rationale is to help in the goal of achieving financial inclusion.
- India's age-old postal department has a wide network of branches across India.
- All the 1,55,000 post offices in the country are expected to be linked to the IPPB system soon.
- IPPB can thus offer savings, remittance, and payments services to the rural and unorganised sectors.
- IPPB's digital services are expected to make financial services more accessible even from remote locations.
- There is also a hope that the payments bank idea will help reinvigorate the postal system.

#### What are the challenges?

- A key challenge is if it can manage to earn the profits required to survive as a standalone business entity.
- Besides, there are severe restrictions imposed by the RBI on how payments banks can employ their funds.
- The first wave of new payments banks that commenced business last year (Airtel, Paytm and Fino) have not made any significant changes.
- Banks have traditionally stayed away from pure deposit banking, unless customers have been willing to pay for these services.
- The IPPB promises to pay an interest rate of 4% to its savings account customers.
- To generate revenues, it plans to charge fees on money transfers and other financial services.
- It also plans to invest idle customer deposits in safe government securities in order to earn interest.
- However, if this will be sufficient to cover interest and operational costs or not remains uncertain.
- Besides, the IPPB is likely to face stiff competition from private companies.
- With increasing competition, the IPPB's revenues and margins are also likely to come under pressure.
- Despite these, if it succeeds, the new payments bank could usher in a new era of rapid financial inclusion across rural India.

### 9.9 Causes for Weakening Rupee

#### What is the issue?

The rupee is on a continuing weakening trend against the dollar in the recent days.

#### What is the recent development?

- The global crude prices are on an increasing trend.
- Resultantly, the value of petroleum and crude imports jumped almost 25% from 2017 to 2018.
- It thereby led to an increase in the CAD from 0.6% of the GDP to 1.9%.
- It is estimated that the CAD may rise to levels of around 2.8%-3% of the GDP in FY19.
- This is in turn leading to a pressure on the rupee.

- Notably, this happens alongside a slower growth rate of exports.
- But besides, several other items imported by India are also playing a crucial role.

### What is the changing imports trend?

- The import basket shows that crude might not be the only one disturbing the equilibrium.
- **Coal** - The value of imports of coal and coke jumped nearly 45% from 2016-17 to 2017-18.
- This rise is in line with the decline in growth rates of coal production in India.
- Notably, the growth in raw coal production of Coal India Ltd (CIL) has slid over the last three years.
- It has failed to keep pace with surging demand on account of higher electricity generation.
- Resultantly, utilities are facing coal shortage at some plants.
- Bottlenecks in transporting coal from pitheads to power stations have worsened the situation.
- Besides, demand for coking coal arises from its use in steel-making.
- But there is a limited supply of high-quality coking coal (low-ash-coal) in the country.
- Hence there is no option but to import coking coal, and coal imports are only likely to be much higher this fiscal.
- **Others** - The value of imports of metaliferous ore and minerals rose nearly 47% in the same period.
- Another major component has been pearls, precious and semi-precious stones, whose imports climbed 44%.
- In all, the imports of coal and coke, metal and mineral, non-ferrous metal, and iron and steel rose nearly 73% of the jump in petroleum and crude imports.
- Even gold imports, which had declined earlier, increased in the FY18.
- **Electronic imports**, the second biggest component of India's import basket also increased around 23%.
- It is to be noted that this is driven purely by demand and is irrespective of crude price rise.
- Among the top import items, electronic goods are the only import component that has seen a year-on-year growth (in value terms) over the last three years.
- It is thus felt that electronic imports are a major area of concern as far as the CAD is concerned.

### How is the exports side?

- While imports have been rising steadily, export growth has slowed down drastically.
- The total imports in FY18 amounted to around \$460 billion, but the exports stood at around \$300 billion.
- India's imports rose 21% in FY18 over those in the previous year; however, the exports grew by only 9.98%.
- The trade deficit has thus been widening over the years because of a skewed rate of growth.
- The average annual export growth was just 0.6% between 2014 and 2018.
- But the overall trade growth rate had been 25.4%, indicating the less contribution of exports.
- Given this, the slack in exports could be the silent, unseen reason resulting in the rupee depreciation.

### 9.10 Dealing with Fuel Price Rise

#### What is the issue?

Even amidst widespread opposition for petrol and diesel price rise, the government ruled out any immediate reduction in excise duty.

#### What is the response?

- The Centre has urged the states to take action.
- Andhra Pradesh announced a Rs 2 per litre cut in VAT on petrol and diesel.
- Rajasthan also announced a 4 percentage point cut.

- But states have been largely unenthusiastic in cutting down the excise duty.

#### **How important is taxes on petrol and diesel?**

- The Centre has had nearly Rs 2 to 2.5 lakh crore from excise duty on petroleum products in 2016-17 and in 2017-18.
- The states' earnings through sales tax/VAT on petroleum products increased around Rs 1.6 to Rs 1.8 lakh crore from 2016-17 to 2017-18.
- Clearly, taxes on petrol and diesel are a key revenue source for both the Centre and states.
- Any reduction in this would significantly hit their fiscal position.

#### **Will bringing it under GST help?**

- LPG, kerosene, naphtha, furnace oil, and light diesel oil attract GST.
- But five other petroleum products lie outside the GST regime.
- These are crude oil, high speed diesel, motor spirit (petrol), natural gas, and aviation turbine fuel.
- But the Centre and the states are not fully ready to include these five petroleum products in the GST regime.
- Even if petrol and diesel are included under GST, prices are unlikely to fall.
- This is because of the GST principle of keeping rates close to the earlier tax rates.
- Also, worldwide trend suggests that if petrol and diesel are included in GST, states levy additional taxes to prop up revenue.

#### **What can states do?**

- Rates of state sales tax or Value Added Tax (VAT) vary from state to state.
- Unlike excise duty, VAT is ad valorem, and results in higher revenues for the state when rates move up.
- This is because taxes imposed by the Centre are specific i.e. fixed in terms of Rs per unit.
- On the other hand, the states tax the oil on ad valorem basis.
- This means that the tax is based on the assessed value of the commodity.
- So, with increasing petroleum prices, states' tax collection correspondingly goes up.
- Thus, the states could make a 10-15% duty cut and still get the same amount of tax revenue as budgeted.
- Therefore, the call for reduction in taxes on petroleum products applies more to the states than to the Centre.

### **9.11 New Procurement Policy**

#### **Why in news?**

Cabinet Committee on Economic Affairs approved the implementation of "Pradhan Mantri Annadata Aay Sanrakshan Abhiyan" (PM-AASHA) recently.

#### **What does the scheme contain?**

- It aims to provide minimum support price (MSP) assurance to farmers.
- The new scheme has three components —
  1. Price Support Scheme (PSS)
  2. Price Deficiency Payment Scheme (PDPS)
  3. Pilot of Private Procurement & Stockist Scheme (PPPS).
- It **clubs together** the existing procurement schemes with newly introduced options.
- PDPS has been framed on the lines of the Madhya Pradesh government's Bhavantar Bhugtan Yojana (BBY) to protect oilseed farmers.
- Under this, farmers will be compensated to the extent of difference between MSP and market price subject to a ceiling price which may not exceed 25% of the MSP.



- Under PPPS, the selected **private agency** shall procure oilseeds at the MSP from the registered farmers whenever prices in the market fall below the notified MSP.
- A maximum service charge of up to 15 per cent of the notified MSP will be payable to the agency as an incentive.
- This is similar to PSS in the **physical procurement** of the notified commodity, it will only substitute PSS in the pilot districts.

#### What are the challenges?

- Under the MSP policy, the government fixes the rates for 23 notified crops grown in kharif and rabi seasons.
- MSP was set at 50% higher than the farmers' production costs this year, including labour cost to give remunerative prices to the farmers.
- However, most of the 21 other crops are sold at market prices, often below the MSP, as the government's **procurement operations are temporary**.
- Though the government has increased the procurement of pulses and oilseeds at MSP under the existing PSS, it was way below the production target.
- For example, NAFED procured 31.9 lakh tonnes of pulses and oilseeds at the MSP in 2017-18, though the total production of pulses and oilseeds was estimated at 240 and 300 lakh tonnes respectively.
- Also PDP experiment in Madhya Pradesh shows, **cartelisation** was witnessed, wherein traders forced farmers to take lower prices from them on account of compulsory compensation from the government.
- It also ends up helping traders and lower level mandi functionaries more than the farmers, despite best intentions of the government.

#### What holds the key in successful implementation of the scheme?

- Registration of all the farmers, especially small and marginal ones, must be ensured so that they receive their compensation on time.
- Proper monitoring of the marketing system should be ensured, as in e-NAM, so that it will check rich farmers from exploiting the system.
- It also depends on how effective the states will be in checking the manipulative practices of the traders.

### 9.12 Interpol Red Notice

#### Why in news?

Interpol has issued a Red notice against the fugitive who had involved in the PNB Scam in India.

#### What is PNB Scam?

- PNB has alleged that two of its employees had "fraudulently" issued LoUs and transmitted SWIFT instructions to the overseas branches of Indian Banks.
- This was done to raise buyer's credit for the firm of a diamond merchant without making entries in the bank system.
- The bank has alleged that one such fraudulent LoU issuance took place on January 2018, the trail of which revealed the entire design.
- These LoUs were mostly issued to two Hong Kong branches of Indian Banks and was for the aforesaid diamond merchant.
- The details on whether LoUs were backed by collateral or the quantum of liability that the bank faces against these LoUs aren't out yet. Click [here](#) to know about PNB scam

#### INTERPOL

- INTERPOL is the world's largest international police organization, with 192 member countries.
- It aims to facilitate international police cooperation even where diplomatic relations do not exist between particular countries.
- Action is taken within the limits of existing laws in different countries and in the spirit of the Universal Declaration of Human Rights.
- Its constitution prohibits 'any intervention or activities of a political, military, religious or racial character'.

#### What is a Red notice?

- **Red Notice** - A Red Notice is a request to locate and provisionally arrest an individual pending extradition.



- It is issued by the General Secretariat at the request of a member country or an international tribunal based on a valid national arrest warrant and it is not an international arrest warrant.
- INTERPOL cannot compel any member country to arrest an individual who is the subject of a Red Notice.
- Each member country decides for itself what legal value to give a Red Notice within their borders.
- A Red Notice in itself does not confirm that the wanted individual will actually be arrested.
- When Interpol publishes a Red Notice, its purpose is simply to inform all member countries that the person is wanted based on an arrest warrant or equivalent judicial decision issued by a country or an international tribunal.
- Thus the success of a Red Notice depends on the diplomatic heft of the requesting country.
- For example, Red Notices against fugitives wanted by India in Pakistan, such as Dawood Ibrahim, have not led to their arrest.

### 9.13 Challenges in Current Account Deficit

#### Why in news?

IMF recently forecasted India's current account deficit (CAD) to widen to 2.6% of GDP in 2018/19 from 1.9% in the previous year.

#### What are the recent developments that affected CAD?

- With moderation in CPI inflation and the CAD, alongside sufficient forex reserve buffer, **India scored 25 in NDI** and was well **within the safety threshold**.
- Yet, higher oil prices, portfolio outflows and a sharper-than-expected domestic growth slowdown still remains as its key vulnerabilities.
- Value of oil imports has risen, even though these have been offset by increases in net factor incomes from abroad.
- This led to a balance between balance of trade and balance of invisibles in the current account.
- Stronger dollar growth and the negative events in Argentina and Turkey impacted many such emerging markets due to **deteriorating emerging-market sentiment** among investors.

#### Nomura Damocles Index (NDI)

- It assesses the risk of exchange rate crisis for 30 emerging market economies.
- A score above 100 suggests a country is vulnerable to an exchange rate crisis in the next 12 months.

#### What are the structural factors surrounding CAD in India?

- India's GDP growth is largely driven by consumption that are largely import-intensive.
- A depreciating rupee should result in a fall in import demand and a rise in export demand through the price effect.
- The situation gets different altogether in India, wherein exports respond mainly to improvements in productivity and to changes in global demand.
- This made our exports highly **inelastic to exchange rate depreciation**.
- Since 1991, import intensity of the Indian economy has risen steadily.
- It has been fuelled by increased elite prosperity and their luxury consumption needs instead of importing food and other items of mass consumption.
- Key growing sectors like defence, aviation, and electronics have failed to secure significant import substitution in recent times.
- New import-intensive sectors have emerged as in cheap clothing from Bangladesh and Vietnam and solar panels from Japan and China.
- India also raised its **import of non-tradeables** wherein forex spent on education and recreational travel abroad raised from \$176 million in 2013 to \$5.4 billion in 2017.

#### How should India proceed?

- Encouraging FDI and FPI inflows could be the immediate strategy to arrest the rising CAD.



- But in the long term, India should moderate the CAD by orienting her **domestically driven growth** to foster substitution in imports.
- Hence, India's external account challenge is structural and it requires a **continuing, orderly depreciation of the rupee**, which would eventually reduce the pace of import growth and encourage export growth.

#### 9.14 SC's Stay on RBI's Circular

##### Why in news?

The Supreme Court has ordered a stay on the implementation of RBI's February 12 circular dealing with insolvency proceedings.

##### What is the case on?

- The RBI's circular is part of a revised RBI framework for resolution of stressed assets in the economy.
- It mandates insolvency proceedings under the new Insolvency and Bankruptcy Code (IBC) for a debt servicing default beyond 180 days.
- It also asks banks to recognise loans as non-performing even if repayment was delayed by just one day.
- Power firms have argued that the provision was unfair.
- It's because their debt repayment capacity was directly linked to revenue from power distribution companies.
- It is also depended on the availability of coal, a natural resource closely regulated by the State.
- The Allahabad High Court thus earlier refused to grant relief to troubled power companies facing action from the RBI.
- But the SC has now ordered that insolvency proceedings should not commence against the defaulting power companies.

##### What is the SC's rationale?

- The current insolvency resolution process has its own flaws, despite the benefits.
- Lenders could realistically expect to recover less than a tenth of their dues if stressed assets are to be liquidated.
- It's because the IBC overemphasises on speedy resolution than the recovery of maximum value from stressed assets.
- Power companies thus argue that their assets could yield better returns if resolved completely outside the IBC's purview.
- With SC's order, the distressed power companies and many other firms in shipping, sugar and textile sectors would be relieved.
- The decision is also helpful for the banks as they would have time for the recognition of bad loan losses.

##### What are the concerns?

- **Intervention** - The troubles of power companies can be traced to structural issues such as the -
  - i. absence of meaningful price reforms
  - ii. unreliable fuel supply
  - iii. unsustainable finances of public sector power distribution companies
- So banks are unlikely to make much money out of the stressed assets until these structural problems are addressed.
- Certainly, policymakers, and not courts, would have to take charge and resolve these issues.
- So the Court's decision to intervene will do very little good in the long run to either stressed power companies or their lenders.
- **IBC** - The decision will transfer all pleas seeking exception from RBI's circular to the court itself.
- This has come as the biggest challenge against the Insolvency and Bankruptcy Code (IBC) yet.

- Postponement of next hearing and the resultant delay undermines the new bankruptcy regime's feature of resolution within a strict time frame.
- It is thus likely to cause significant uncertainty in the resolution of stressed assets.
- It would also undermine investor confidence in the bankruptcy process.

### 9.15 Changes in Mutual Fund Regulations

#### Why in news?

SEBI has unleashed a set of fundamental changes to the regulations governing mutual funds in India.

#### What are the proposed measures?

- Assets under management(AUM) of the industry are at a record of Rs 25 lakh crore, resulting in a revenue of about Rs 13,000 crore.
- The market regulator has decided to lower expenses paid by investors of equity mutual fund schemes.
- **Total Expense ratio** - TER is a percentage of a scheme's corpus that a mutual fund house charges towards expenses including administrative and management.
- TER for equity-oriented mutual fund schemes were capped at 1.25 per cent and for other schemes at one per cent.
- The cap for fund of funds will be 2.25 per cent for equity-oriented schemes and two per cent for other schemes.
- Also, the TER will go down as the AUM slab increases.
- For instance, the TER ranges between 0.8 and 1.05 per cent for the for the highest AUM slab (over Rs 500 billion), whereas it ranges between 2 and 2.25 per cent for the lowest AUM slab (0 to Rs 5 billion).
- **Transparency** - SEBI has mandated that commissions and expenses shall be paid from the scheme only and not by any other route.
- Further, the mutual fund industry has to adopt the full trail model of commission in all schemes without paying any upfront commission.
- **Disclosure** - SEBI requires category-wise disclosure of all schemes' returns with respect to its total returns to be made available on the Association of Mutual Funds of India's website.
- **Borrowings** – Companies with outstanding borrowings above Rs 1 billion shall raise 25 per cent of their incremental borrowings for the year through the bond market.

#### What could be the effects?

- A mutual fund has a certain fixed cost and after a certain fund size, the extra cost of managing extra money is marginal.
- Hence, Lowering of TER for higher AUM companies avoids the chances of any unfair pricing.
- An upfront commission is an amount that fund distributors receive for getting investors to put money into a fund.
- This means that the distributor's interest lies in getting a transaction done, hence they try to keep moving the money and creating more transactions.
- Hence, SEBI has outlawed it and instead go for trail commission.
- With this, as long as the investor is invested, the distributor gets a steady stream of revenue.
- This avoids the need for switching money merely to get as many transactions as possible.
- SEBI's move to bar mutual funds from paying fees to distributors from their books is also seen as an effort to prevent mis-selling.
- This is because the commissions come from the underlying schemes and not the asset management companies.
- SEBI's move to promote corporate bond market is difficult to implement in the absence of any real reforms.

- This is witnessed by the share of corporate bond market to GDP at around 17%, way lower than the equity market at 80 per cent.
- Also, there are concerns that advisers could push financial products with higher costs and fees on account of lower expenses and commissions.
- Hence it is necessary to ensure that lowering of expenses leads to passing on the benefits of efficiencies to investors.

## 9.16 India's Action on Import Duty

### Why in news?

India has increased import duty on several products.

### Why?

- India has increased import duty on 19 products such as diamonds, shoes, ACs, and refrigerators.
- These products cover \$12 billion or close to 2.6 per cent of India's annual imports.
- The reason is US-China trade war has increased the wedge, many countries, including India, are actively considering such measures.
- Free imports allow a growing economy to expand production quickly thus to address the concerns India has hiked its tariffs on import duties.

### Where do other nations stand at this regard?

- The US, the EU and most other developed countries charge high import duty on products of interest to developing countries and grant calibrated access only.
- The EU and the US charge 10-20 per cent import duty on Indian apparel and shoes.
- Japan charges 300 per cent duty on rice, Many European countries charge seasonal import duties on agriculture products.
- Total import duty on some types of steel in the US and EU now exceeds 100 per cent.
- South Korea is an excellent example of export-led development, but in most sectors it imposes high import duties and non-tariff barriers.

### What are the concerns on India's measure on imports?

- Economists argue that governments should refrain from regulating trade flows.
- Free imports would boost the purchasing power of consumers by allowing them to buy high-quality goods at low price.
- If trade flow is unhindered, the law of comparative advantage takes over, forcing countries to specialise and trade in few products in which they have some competitive advantage.
- This benefits consumers and producers of both exporting and importing countries.

### What measures needs to be considered?

- India follows an open trade policy where most products can be imported without prior permission on payment of import duty.
- India could reduce its dependence on imported medicine and emerge as the world's leading generics supplier because of not recognising product patents for a few years.
- Today, low priced and high-quality cars and medicines from India find a ready market the world over.
- Trade should largely be free from regulation and India need to work on active measures on import substitutes.

## 9.17 SEBI Panel's suggestion on FPI Norms

### Why in news?

SEBI appointed panel has made some suggestions to its circular to enhance KYC norms for foreign portfolio investors (FPI).



### Who is a BO?

- A beneficial owner (BO) is one, who, directly or indirectly, derives the benefits of ownership.
- The threshold for a BO in a partnership firm or trust is 15% and 25% in the case of companies.
- The threshold is only 10% if the fund is incorporated in high-risk nations with a history of money-laundering and terrorism, etc.
- In case no single entity meets these thresholds, then a senior managing official of the FPI is the designated BO.

### What does the circular say?

- **Ban** -It says Resident Indians (RIs), Non Resident Indians (NRIs), Persons of Indian Origin (PIOs) and Overseas Citizens of India (OCIs) **cannot be BO** of a FPI investing in India.
- NRIs and OCIs can only obtain an FPI licence on condition that **they limit their roles to investment advisors** and do not invest their money.
- **Conversion** -Any single FPI can only hold a shareholding limited to 10% in an Indian listed company.
- If the limit is breached, the BO must either opt to be treated as a FDI, or divest stake below 10% within five trading sessions.
- The investment limit of different FPIs will be clubbed if they have the same BO and the clubbed limit should also not exceed 10%.
- Category II and III FPIs were asked to disclose the name and address of the BOs, their tax residency jurisdiction along with percentage shareholding capital or profit ownership in the FPIs.
- SEBI has also asked FPIs to determine ownership based on both shareholding and control, in contrast to the prior criteria of whoever owning a majority stake in a fund being considered a BO.
- Though SEBI has not explicitly stated the reason, concerns over money-laundering and round tripping may have prompted this directive.
- In a relief to FPIs, SEBI-appointed panel has made some suggestions to the circular.

### What does the HR Khan panel recommend?

- **NRIs be allowed** to hold stakes of **up to 25%** in FPI funds.
- In combination, NRIs can hold up to 50% of an FPI fund in concert and PIOs and OCIs can be allowed to invest via the FPI route without any restriction.
- It clarified that the concept of BO should be applied **only for KYC norms**.
- For additional KYC norms, certain sensitive data (such as the US Social Security number) will not be collected, to alleviate concerns about data security.
- This prevents the possibility of the 10% limit being triggered and the Centre has told SEBI that it need not use beneficial owner definition laid down under PMLA.
- In cases where the 10% limit is exceeded, the FPIs in question will be given 180 days to divest holdings (or opt to be treated as foreign direct investors).
- The same regulations will apply to participatory note investments.

### What were the shortcomings?

- **Capital Outflow** - The total portfolio investments in India's financial markets are estimated at \$450 billion.
- The SEBI circular disqualifies about \$75 billion of portfolio investments into India made by FPIs backed by domestic institutions, NRIs, PIO and OCI card-holders.
- The order may trigger **wholesale selling** since NRIs cannot operate through the FPI route anymore.
- It was originally issued with the intention to enhance the KYC norms for FPIs.
- But it ended up imposing a blanket ban on certain types of investments where NRIs, PIOs or OCIs were investors (beyond a threshold) or even served as senior managing officials of these funds.
- The circular delegates the task of identifying high-risk jurisdictions, with tighter KYC norms, on custodian banks.

- **Definition** – Companies running multiple India-focussed funds might have only a single officer as a BO for all funds from one house.
- In that case, the separate funds may be **forced to sell**, even if those funds are all individually below the 10 per cent limit.
- **Revenue loss** - Loss of investment of funds into India could also result in the country losing the benefit of tax revenues generated by onshore Indian taxpayers.
- **Impact on public enterprises** - Private investment in public enterprises (PIPE) strategy could also be affected
- **Privacy** - Given the lack of data protection laws, information demanded in the KYC like address, date of birth, tax residency number, passport number, etc., of the BO will make many FPIs uncomfortable in sharing information.
- Hence, a group of FPIs openly appeal to the Prime Minister for an urgent intervention in this regard.

### 9.18 Addressing Rising Oil Prices

#### What is the issue?

Global oil prices are surging to phenomenal high, India need to act smart in this regard.

#### What are the concerns with global oil prices?

- Global crude oil now at almost \$80 a barrel, petrol and diesel prices back home have climbed up rapidly in recent months.
- It has not helped at all that the oil price rise has coincided with the steep fall of the rupee.
- Petroleum products contributed 24 per cent of the Centre's revenue receipts and 8 per cent of the States' revenue receipts in 2016-17.
- However, the union though under pressure to keep prices in check, seems disinclined to cut excise duties.

#### What were the actions of the government in this regard?

- Union government hiked these nine times between November 2014 and January 2016 when the oil prices were declining and cut just once in October 2017.
- Faced with uncertain revenues on the GST front in particular, it possibly does not want to risk a fiscal slippage at a time when the current account deficit too is slated to expand.
- States too are reluctant to cut their sales tax on fuels, although Rajasthan and Andhra Pradesh have done so already.

#### What is the petroleum pricing mechanism in India?

- In India oil marketing companies fix petroleum prices based on trade parity price (TPP).
- The TPP is based on product prices in the international market, assuming that 80 per cent of the petrol and diesel is imported and 20 per cent is exported.
- It is high time the oil marketing companies started pricing their products independently and transparently based on market principles, depending on their distinct cost structures and margin profiles.

#### What measures needs to be taken?

- Union government must direct oil marketing companies to change their pricing mechanism from trade parity price (TPP) to one based on market realities.
- Union government must engage with the States with respect to bringing petrol and diesel under GST.
- Improved GST collections will give States the confidence to allow these products into the net.
- The maximum GST rate is much lower than the effective tax rates being charged by the Centre and States together on petrol and diesel.
- The Centre can consider higher GST on these fuels for revenue-neutrality.
- Lower costs and the benefit of input tax credit under GST could help oil companies reduce fuel prices.

- Reduced reliance on petroleum revenues would go well with the overall emphasis to improve the tax base and formalise the economy.
- The easier option of asking public sector oil marketing companies to go slow on price hikes in the run-up to the polls should be avoided.

### 9.19 Pricing mechanism behind Petroleum

#### What is the issue?

Petroleum prices are rising and there are considerable demands to the centre to reduce its excise duties on the product.

#### How the sector was deregulated?

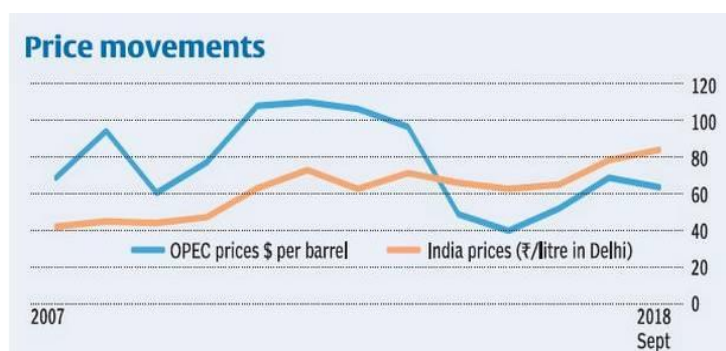
- Being a basic intermediate good, it is operated through a special oil pool account funded by the surplus of ONGC and the refining companies, as well as direct government subsidies.
- Being an ideal commodity for indirect tax, high Central excise duty and high sales tax rates by the states at the retail level were levied.
- With the rising trend in international crude oil prices the subsidy burden of the oil pool account began to mount.
- There were demands that the oil market should be deregulated.
- But the excise revenues from oil was substantially larger than the subsidies provided by the centre.
- Also, the surpluses of petroleum mining and refining companies were substantial enough for cross subsidisation of the loss-making retail oil companies.
- But the entry of private players like Reliance and Essar into the retail trade made cross-subsidisation untenable.
- Thus the administered Price Mechanism for petroleum was dismantled and market pricing mechanism was allowed.

#### What was the consequence?

- The Centre chose to increase the excise duty on petrol and diesel, although OPEC prices showed a downward trend.
- The hike in excise duty was 380 per cent for diesel and 120 per cent for petrol between 2014 and 2017.
- The **C&AG Report** has observed that the huge increase in central excise collection from petroleum products (2015-16) was due to a sharp increase in per unit tax on petrol and diesel.
- The excise duty revenue of the central government from petroleum products which was Rs.88600 crores in 2013-14 peaked to Rs.2,53,254 crores in 2016-17.
- Never has indirect tax on any commodity witnessed such a sharp escalation as on petroleum products.

#### What is the present scenario?


- The international prices crude oil began to rise from late 2016.
- Yet the Centre refused to reduce the excise duties and prodded oil companies to raise their retail selling prices.
- The Centre fears an adverse impact on fiscal deficit, if any additional revenue from petroleum products gets lost.
- The depreciating rupee also added to their woes.
- However, rising fuel prices are stoking an inflationary fire and imposing an unbearable burden on the people.



### Should the states be held responsible?

- States are benefiting from petroleum price escalation through higher devolution after the 14th Finance Commission award in the share of central excise duty.
- However, **only basic excise duty** on petrol and diesel is shareable with the States and others are outside the divisible pool of taxes shareable with the States.

Duty structure (₹ per litre)					
Item	Basic excise duty	Special excise duty	Additional excise duty	Total	Share of basic excise duty in total (%)
Petrol	7.66	6	7	20.66	37.07
Diesel	10.69	6	1	17.69	60.42



- Also, VAT rates has been hardly increased in recent years and even some states have already reduced VAT rates to moderate the current price escalation.

### What should the centre do?

- The centre argues that it keeps a substantial portion outside the shareable pool for its obligations on social sector spending.
- There is no established connection between higher duties on petroleum products and social sector spending.
- A demand has also been made that petroleum products be included in the GST.
- But before it gets into reality, a compensation package has to be finalised as per the GST compensation law.
- This would make the present compensation cess to be inadequate.
- Thus the solution is for the Centre to immediately roll back its excise duty spikes.

## 10. INFRASTRUCTURE

### 10.1 Collapse of Flyover and Bridge

#### Why in news?

Majerhat Bridge, one of the busiest flyovers of Kolkata, collapsed, which was constructed in 1965 connecting Behala to southern Kolkata.

#### What are the other such instances?

- Recently a portion of an under-construction flyover on a highway at Uttar Pradesh's Basti district collapsed.
- Similarly in 2016 an under construction flyover collapsed in central Kolkata.

#### What are the reasons for collapse of structures?

- The state forensic report team that investigated the Majerhat Bridge collapse stated the lack of maintenance of the bridge over the years as the reason.
- Further, ad hoc and temporary steps to fix the problems in the bridge also contributed for the collapse.
- For instance, additional bitumen to Majerhat Bridge without assessing the load carrying capacity of the structure added to the load of carriage deck.
- The other reasons for the Engineering Structures to collapse are,
  1. Use of faulty and substandard material for construction
  2. Lack of maintenance
  3. Unsuitable design with respect to the area.

### What are the steps to ensure the structure safety?

- Engineering structures are to be inspected at a regular interval.
- Based upon the inspection maintenance work and strengthening of the structure are to be done.
- Reinforcement work is needed in ensuring the safety of the bridge.
- Expert points out that quality design, standard material and consistent maintenance work are the prerequisite for a better and safe engineering structure.
- The most important point is to use the allocated funds and not to cut corners in such Repair, renovation and maintenance works.

## 10.2 Promoting Waterways

### Why in news?

The Shipping Ministry has allowed foreign flagged vessels to transport fertiliser between Indian ports by easing the cabotage law.

### What does a cabotage law imply?

- It specifies that only Indian flagged vessels are allowed to carry cargo between Indian ports.
- Foreign vessels can ply in Indian waters only after obtaining a licence and only if an Indian vessel is unavailable.
- The norms to ply without license for foreign vessels has been relaxed earlier this year to transport agriculture, horticulture, fisheries and animal husbandry cargo.
- Fertiliser is the seventh item that has been freed from restriction imposed by the cabotage law.

### What are the competitive advantages?

- The Golden Quadrilateral and Goods and Services Tax have helped move goods faster and easier within the country.
- But transporting goods through road still costs Rs.1.5 per tonne kilometre.
- Also, the 3,228 km dedicated railway freight corridor that the government is building will reduce both the time and cost of transportation.
- Currently, it costs Rs. 1 per tonne kilometre to transport goods by rail.
- But the waterways serve as both the cheapest mode of transportation costing as low as 30 paise per tonne kilometre and also less polluting.
- Also, with its natural advantage of a 7,500 km coastline and 14,500 km of potentially navigable waterways, India can take a lot of pressure from the road and rail infrastructure, which are costly to build and expand.
- For instance, the 3,228 km dedicated rail corridor under construction costs over Rs. 81,000 crores.
- Countries like china and Japan moves over 40% of goods over water while a little over 5% of the goods are moved over water in India
- India is still looking towards road transport (over 60%) and rail (over 30%) to shoulder most of the load.
- Hence, the relaxation of the cabotage law will increase the supply of ships for coastal shipping.
- This should push industries and others to move goods such as cement, fertilisers, agriculture and horticultural produce through sea at lower cost.
- This could be complemented by port connectivity and modernisation of existing ports through the Sagarmala project.
- Along with that, two barges carrying 1,233 tonnes of fly ash were recently flagged off on river Ganga (National Waterway-1) from Kahalgaon power plant.
- The barges will travel 2,085 km across multiple waterways to reach Pandu Inland Port in Assam.
- This could make our waterways establish themselves as possible for cargo transportation and make compete with other sectors.



### What are the challenges ahead?

- The government has identified 106 more waterways for navigation apart from NW-1.
- But even NW-1 makes water transportation possible for only a few vessels and only during daytime.
- Also, only in monsoon months when the water levels are high, transportation could be made possible in such rivers.
- Hence measures that need adequate focus are -
  1. Dredging of rivers
  2. Building new ports
  3. A proper river information system
  4. Digital GPS for night navigation
  5. Need for better berthing facilities
  6. Ensuring quick evacuation of goods from the port
  7. Leveraging technology to offer single document for multi-modal transportation
  8. Lower port charges
- India's logistics cost is currently at 14% of GDP, way above the 8-10% levels in evolved economies.
- High logistics costs blunt India's competitive advantage, especially when it comes to the 'Make in India' initiative.
- The government is right in focussing on water-based transportation to sharply reduce logistics cost.
- It should be followed by internal reforms, so that Indian shipping companies will not be forced to under-invest in this rising sector.

## 11. AGRICULTURE

### 11.1 Storing Foodgrains in the Open

#### What is the issue?

- India stores millions of tonnes of foodgrains in the open under tarpaulins.
- It has notable health effects and is a cause for other losses.

#### Why is foodgrains storage important?

- In India, at the height of the rainy season, growth of fungi overnight is a serious concern.
- Humidity in the air and warmth of summer are conducive for fungi growth.
- All fungi need is something to feed on, and grains are more susceptible to it.
- Eating mouldy grain causes a variety of illnesses.
- Mycotoxins, found in mouldy grain/foods, are associated with human disease.
- They produce aflatoxins (cancer-causing), and other such toxins.
- Aflatoxicosis causes abdominal pain, vomiting, hepatitis.
- They sometimes even cause death after acute exposure to high concentrations in food.
- Chronic low dose exposure to aflatoxin can result in impaired growth in children.
- So healthy foodgrains storage conditions are essential to avoid possibilities for the above.

#### How is storage done elsewhere?

- In other parts of the world, grain is stored in silos (a tall tower or pit on a farm used to store grain).
- Here, stored grain is kept dry and aired so as to prevent fungal and insect attacks.

- The time North American mid-west came under plough, large grain silos and a railway system to export the grain were built.
- Today, the U.S. has a permanent storage capacity nearly equivalent to its annual grain production.

### What are the concerns in India?

- **Storage** - India handles about 30.52 million tonnes of rice, wheat, maize, gram and sorghum.
- These are stored in structures at Food Corporation of India godowns and hired spaces.
- Most procured grain is stored using the CAP, or cover and plinth method.
- Under this, grains are piled up on the floor and covered with a tarpaulin.
- This is very cheap and easy to make, but not healthy.
- **Silos** - India has only four silos located each in Kolkata, Chennai, Mumbai and Hapur-Ghaziabad.
- A recent one, in Uttar Pradesh, is the most modern with a storage capacity of 500 tonnes.
- The remainder of government-procured grain is stored in poor conditions.
- To export basmati rice, Punjab has built modern, temperature-controlled grain silos with a storage capacity of 50,000 tonnes.
- However, this is not for the Indian market.
- **Loss** - It is estimated that there is a 10% loss of harvested grain.
- Of this, 6% (around 1,800,000 tonnes) is lost in storage.
- These grains become so damp, fungus-ridden and unfit for consumption.
- **Impact** - Grains are stored outdoors under tarpaulins through the rainy season.
- After this, grain is ground (grind) and converted to flour or flour-based products or de-husked.
- However, mycotoxins are already present from the time the flour was stored in the form of grain.
- **Awareness** - The government is aware of the deadly consequences of grain with mycotoxins.
- There are regulations in place to prevent the purchase of mouldy grain from farmers.
- However, there are no published studies on the extent of mould infection in grain stored using the CAP method.

### 11.2 Collectivization of Small Holder Farmers (SHF)

#### What is the issue?

- Innovative thinking on smallholder farmer empowerment is needed in the context of the Indian government's push to double farm income by 2022.

#### What are the problems faced by Small holder farmers?

- They are forced to face a cycle of low investment, poor productivity, low value addition, weak market orientation and low margins.
- Decreasing landholdings due to fragmentation adds oil to burning fire.
- Further a post-harvest value chain coupled with inefficiencies, causes post-harvest losses (PHL) to stack up throughout the value chain.
- These stacking up or 'hoarding' causes inflationary effect on the economy and strikes a blow again upon the smallholder farmer as consumers.
- As per latest estimates by the Associated Chambers of Commerce of India, India loses around Rs. 92,600 crore (\$14.3 billion) on account of PHL.

#### What are the different Models of Collectivization of Farmers?

- There are two Small Holder Farmers collectivization models in India: farmer producer organizations (FPOs) and agricultural entrepreneurs (AEs).



- The concept behind Farmer Producer Organizations is that farmers, who are the producers of agricultural products, can form groups and register themselves under the Indian Companies Act.
- The FPO model creates value across different post-harvest phases, including harvesting, primary processing, storage, secondary processing, and market linkages.
- The aim is to enhance farmers' competitiveness and increase their advantage in emerging market opportunities.
- The Agricultural Entrepreneur model is predominantly buyer and intermediary driven, with a strong profit orientation.
- AEs are usually from the village and work independently or through contracts with companies that provide farmers inputs, equipment or procure produce from farmers.

#### How can these models mitigate the problems faced by SHF?

- Efficient farmer collectivization confers
  1. greater bargaining power
  2. better market and price discovery
  3. access to credit and insurance and
  4. sharing of assets and costs
- It encourages private sector interest and builds the ability of farmers to invest in storage, crop protection and value addition infrastructure.
- It also provides better access to market linkages and information through partnerships which enables farmers to reduce demand/supply imbalances and Post Harvest Losses.
- AEs link farmers with the market, minimizing damage to their produce before delivery to buyers.

#### What are the challenges associated with these models?

- The FPO model faces challenges with respect to community mobilization, effective decision-making and governance, efficiency of promoting agency, and access to capital.
- Constraints associated with the AE model include vastly different individual entrepreneur capabilities and lack of capital.

#### What can be done to strengthen them?

- A multi-pronged approach encompassing a series of interventions can significantly strengthen the SHF collectivisation ecosystem in the long run.
- **Technical support facility:** can help build transition FPOs from a production-oriented model to a more value-addition and agribusiness focussed model.
- It will offer farmers access to a range of services, including training, sourcing of inputs, mechanisation, value addition, market information and linkages.
- **Innovative capital infusion mechanisms :** Currently, direct equity investments not being permitted in FPOs limit their capital access and growth potential.
- Potential alternative financing structures such as guarantee fund, results-based finance and insurance structures to facilitate capital infusion into FPOs need to be explored.
- **Diagnostics and credit rating mechanism :** Formal financial institutions are wary of lending to FPOs, largely due to the latter's inability to provide adequate collateral to cover the lender's risk.
- An FPO diagnostics and credit-rating mechanism can encourage financiers unlock credit flow.
- **Apex body for FPOs :** A self-regulatory body designed to protect the interest of FPOs and farmer members is needed.
- Example: Microfinance Institutions Network (MFIN) to regulate the businesses of member-MFIs in India.

#### Smallholder farmers

- According to Food and Agriculture Organization (FAO), Small-holder farmers are defined as those marginal and sub-marginal farm households that own or/and cultivate less than 2.0 hectare of land.
- Smallholder farmers (SHFs) represent 80 per cent of India's farming community.

- **Data analytics platform** :An FPO data analytics platform can capture the data virtually through mobile and computer interfaces, analyse them and provide decision support to FPOs and their promoters.

### 11.3 Challenges with Bumper Harvest

#### Why in news?

Improved distribution of monsoon rain has resulted in good sowing of Kharif crops across the country.

#### What is the status of Kharif crops?

- In 2018, summer crops have been sown on nearly 1,053 lakh hectares against 1,046 lakh hectares during the corresponding period in 2017-18.
- Though the cumulative monsoon rain across the country has been 8% lower than the normal as of September 14, the higher acreage is being attributed to better distribution of rainfall.
- The total grain production is pegged at 136.75 million tonnes, which is just 3% less than previous year's record harvest of 140.73 million tonnes
- By which another bumper harvest is expected this season, if weather conditions continue to be conducive.
- A bumper harvest will help the government fill its granaries for the Public Distribution System and reduce hunger and malnutrition.

#### How bumper harvest affects farmers and consumers?

- The key issue with bumper harvest for the farmers is that a very small proportion of the produce is procured by government agencies, the bulk of the output is purchased by private players.
- The system of selling the produce is such that the intermediary gains more and the producer and the consumer both suffer.
- While the primary producer (farmer) gets low prices, consumers often have to pay high rates.
- A large number of small and marginal farmers are becoming highly distressed owing to the system of market institutions squeezing them both on the input and output side.
- The interlinked transactions, such as the informal credit market, further make them victims of a debt trap.

#### What are the challenges for the government?

- A good Kharif harvest means an increase in supply, which could result in a drop in crop prices, hitting farm income.
- The challenge with a "situation of abundance" before the government is that of maintaining food prices at levels that ensure farmers get their due profits, while not depriving consumers of the gains of a bumper harvest.
- After harvesting, the crop goes out of the hand of the primary producer (farmer) and is largely usurped by the intermediary.
- When the primary producer's share of the pie is declining, the sustainability of farmers come under threat.
- This is the trend with bumper crop prices, especially those of pulses, vegetables and fruits, crashing at the time of harvest and sky-rocketing in the lean period.
- Marketing institutions are very weak across the country, and innovative reforms are lacking in this area.

#### What are the measures to be taken?

- Farmers' organisations have come together to demand a better deal for primary producers, as their survival is at stake.
- To make farming a healthy business, the government needs to invest in the agriculture sector to improve input and output chains, where the value addition should be reaped by the primary producer.
- Increased investment is urgently required to revamp a dying agriculture sector and make it inclusive and sustainable in the long run.

## 11.4 Significance of Bamboo Cultivation

### Why in news?

The theme of World Bamboo Day 2018 is bamboo as a tool for achieving economic and social sustainability.

### What is the status of bamboo cultivation in India?

- Bamboo is grown on 10 million hectares in India and covers almost 13 per cent of the total forest area.
- The total production of bamboo is five million tonnes per year.
- About 8.6 million people depend on bamboo for their livelihood, the value of bamboo in India is estimated at \$4.4 billion.
- Though Madhya Pradesh has the largest area under bamboo forests, bamboo culture thrives in the North Eastern region.
- India is second only to China in terms of bamboo diversity.
- The North-Eastern States are a storehouse of bamboo diversity, home to 58 bamboo varieties.

### What are the significant characteristics of bamboo?

- The advantage of bamboo is manifold compared to monoculture tree plantations.
- After planting, bamboo clumps start yielding after 4-7 years, it can become part of agro forestry practice in small land holdings.
- New bamboo plantations may curb the pressure from deforestation by serving as wood substitutes.
- It can be planted to reclaim severely degraded sites and wastelands.
- It is good soil binder owing to its peculiar clump formation and fibrous root system and hence also plays an important role in soil and water conservation.
- It is the fastest growing canopy, releasing 35 per cent more oxygen than trees.
- There are studies reporting that bamboo stands sequester 12 tonnes of carbon dioxide from per hectare.

### What is the role of Bamboo in Indian lives?

- From the tender shoots as a delicacy food item to the rice cooked in the hollow of raw bamboo, it is part of everyday life.
- Due to its versatile nature and multiple uses, it is also called 'poor man's timber'.
- From house construction to flooring, agricultural implements, bamboo pervades all aspects of life and culture, artistic skills in bamboo weaving is also found in north-eastern region.
- Apart from this Bamboo is an integral part of North-east India's life and culture, as it is used in religious ceremonies, art and music.

### What are the initiatives taken by India to promote Bamboo?

- India launched the National Bamboo Mission in 2007, it has failed to address the enormity of the issues related to bamboo.
- Realising this lacuna, the Finance Ministry has allocated \$200 million in the 2018 Budget to provide new impetus to the bamboo sector, with huge support to the North-Eastern States.
- In November 2017 the Centre relaxed the restrictions on harvesting, transit and trade of bamboo to boost the bamboo economy across the country.

### What India can learn from China in this regard?

- China has achieved great success in growing and showcasing bamboo forests and products.
- The headquarters of International Bamboo and Rattan Organisation (INBAR) is located in China.
- It is a multilateral development organisation which promotes environmentally sustainable development using bamboo and rattan.



- It has been making a real difference to the lives of millions of people and environments around the world with achievements in areas such as: raising standards; promoting safe, resilient bamboo construction; restoring degraded land; capacity-building; and informing green policy and sustainable development objectives.
- Following the footsteps of China, India needs to support farmers to establish bamboo plantations in barren slopes.

### 11.5 Issues with Cotton Production

#### What is the issue?

The requirement of cotton for the textile industry is projected to grow and it needs improvement in agronomic practices.

#### What are the benefits?

- Cotton has been successfully used as a multiple purpose crop as –
  1. Edible oil for human consumption
  2. de-oiled cake as an animal feed
  3. Fabric making fibre.
- 65 lakh farmers in India cultivate more than one crore hectares of cotton annually, mostly under rainfed conditions.
- India's share in global cotton production is a whopping 25% and an estimated 6 crore people depend on cotton for their living.
- Cotton seed industry forms about 20% of the total seed industry in India.
- The cost of cotton seed is less than 5% of the revenue of the cotton farmer and has remained very affordable.

#### How does it influence textile industry?

- Availability of good quality cotton throughout the year at an internationally competitive price is essential to achieve a sustained growth rate in the textile industry.
- The Indian textile industry is predominantly cotton based with almost 75 % of the spun yarn in the country being produced from cotton.
- The cotton seed industry has played a pivotal role here by continuously investing in research, developing new hybrids, developing and introducing Bt cotton technology.
- This has played a huge role in making required quantity and quality of cotton available to the textile industry.
- The size of the textile industry grew six times to Rs. 10 lakh crore, exports more than tripled to Rs. 2.5 lakh crore and spun yarn production almost doubled since 2000.
- India has become largest exporter of cotton yarn in the world with its value chain holding the potential to achieve 12 per cent CAGR as against 6 per cent CAGR achieved so far.

#### What are the concerns?

- The textile industry projects their cotton requirement as between 570 lakh bales and 940 lakh bales by 2028.
- This requires introduction of next generation traits like Bt3, Bt4, Herbicide Tolerance, Water Use Efficiency, Nitrogen Use Efficiency, High density planting system, mechanical harvesting system etc.,
- But the flow of new technologies into cotton seed research has been affected by –
  1. stalemate in the regulatory approval process
  2. price control on GM seeds
  3. confusion on the intellectual property situation of traits
  4. hostile environment towards using modern science technology in seed.
- This has made technology providers completely discouraged with the direction in which the biotechnology policy of the government is progressing.

- Many companies have either scaled down or closed down their technology development centres in India or have deferred their plans.

### What will be its impact?

- Effectiveness** - Farmers will have to go back to heavy use of chemical pesticides to control the dreaded bollworms, once the technologies currently used in cotton will lose their effectiveness.
- This will increase the cost of production and makes him uncompetitive.
- Cost** - Labour scarcity will make farmers unable to manage the weeds in their fields and will not be able to pick cotton, affecting yields and economics.
- The cost of picking cotton has already touched 10% of the revenue of the farmer and will go up further.
- Stagnation in cotton production can jeopardise the commercial prospects, employment generation and export potential of the textile industry.
- It can lead to a huge increase in imports of cotton at increased cost, which could affect both the farmers and consumers of India.
- Effect on states** - The States which dominate textile manufacturing like Tamil Nadu, Andhra Pradesh, Maharashtra will see a huge loss of economic opportunity.
- The States which dominate cotton crop cultivation like Maharashtra, Gujarat, Andhra Pradesh will lose heavily in terms of farmers' welfare and rural prosperity.
- It could also threaten the prominent position India holds in the global cotton exports.
- Thus a comprehensive review regarding the policy directions involving the Ministry of Textiles, cotton growing states and the textile manufacturing states is the need of the hour.

## 12. SCIENCE & TECHNOLOGY

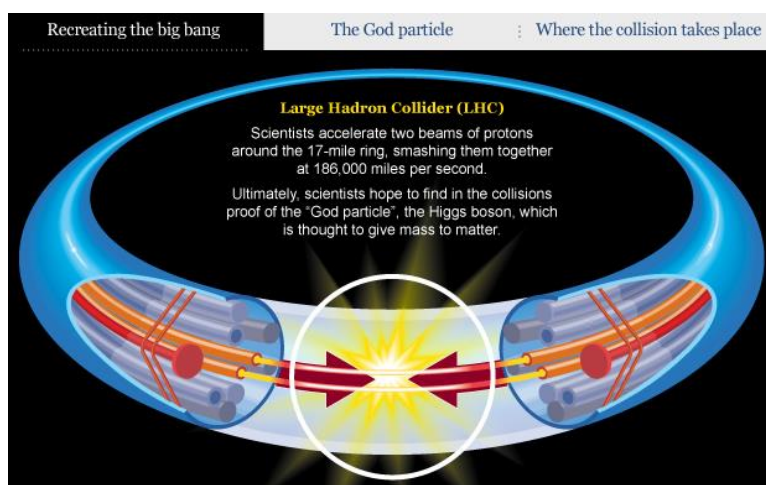
### 12.1 Upgrade to Large Hadron Collider - CERN

#### What is the issue?

- CERN (the European Organization for Nuclear Research) recently found that Higgs boson decays to fundamental particles known as bottom quarks.
- Testing this and understanding more particles, require an upgradation to the Large Hadron Collider.

#### Why to study particles?

- Particle physics probes nature at extreme scales, to understand the fundamental constituents of matter.
- Particles communicate with each other in accordance with certain rules.
- These are embedded in what are known as the 'four fundamental interactions'.
- The particles and three of these interactions are successfully described by a unified approach known as the Standard Model (SM).
- The SM is a framework that required the existence of a particle called the Higgs boson.
- The Large Hadron Collider (LHC) is the world's largest and most powerful particle accelerator.
- One of the major aims of the Large Hadron Collider (LHC) was to search for the Higgs boson.



#### How are such tiny particles studied?

- Protons are collected in bunches.

- They are then accelerated to nearly the speed of light and made to collide.
- Many particles emerge from such a collision, termed as an event.
- The emergent particles exhibit an apparently random pattern.
- But they follow the underlying laws that govern part of their behaviour.
- Studying the patterns in the emission of these particles help understand the properties and structure of particles.

### What is CERN's proposal?

- Higgs boson was discovered at the CERN Large Hadron Collider (LHC).
- The Higgs boson was detected by studying collisions of particles at different energies.
- But they last only for one zeptosecond which is 0.0000000000000000001 seconds.
- So, detecting and studying their properties requires an incredible amount of energy and advanced detectors.
- CERN has thus announced earlier this year that it is getting a massive upgrade to the LHC.
- This will be completed by 2026.

### Why an upgrade?

- *Luminosity* is a measure of the number of protons crossing per unit area per unit time.
- Initially, the LHC provided collisions at unprecedented energies.
- This allowed scientists to focus on studying new territories.
- But, it is now time to increase the discovery potential of the LHC by recording a larger number of events.
- So upgrading (increasing the luminosity) will increase the rate of collisions.
- Eventually, the probability of most rare events will also increase.
- This offers scope for studying the properties of newly discovered particle and its effect on all other particles.
- In addition, understanding the properties of the Higgs boson will require their abundant supply.
- But the SM has its shortcomings, and there are alternative models that fill these gaps.
- It thus necessitates a High Luminosity LHC (HL-LHC).

### How will it help?

- The beam in the LHC has about 2,800 bunches, each of which contains about 115 billion protons.
- The HL-LHC will have about 170 billion protons in each bunch, contributing to an increase in luminosity.
- After the upgrade, the total number of Higgs bosons produced in one year may be about 5 times the number produced currently.
- The experiments will be able to record about 25 times more data in the same period as for LHC running.

### How will it be upgraded?

- The protons are kept together in the bunch using strong magnetic fields of special kinds.
- These are formed using quadrupole magnets.
- Focusing the bunch into a smaller size requires stronger fields.
- Therefore greater currents are employed, necessitating the use of superconducting cables.
- Newer technologies and new material (Niobium-tin) will be used to produce the required strong magnetic fields.
- The creation of long coils for such fields is being tested.
- New equipment will be installed over 1.2 km of the 27-km LHC ring.
- This will help in focusing and squeezing the bunches just before they cross.

- The LHC gets the protons from an accelerator chain.
- This will also need to be upgraded to meet the requirements of the high luminosity.
- Moreover, the length of each bunch is just a few cm.
- So, to increase the number of collisions a slight tilt is being produced in the bunches just before the collisions.
- This is to increase the effective area of overlap.

## 12.2 Defining Pluto and a 'Planet'

### What is the issue?

- In 2006, the International Astronomical Union (IAU) voted to remove Pluto's planetary status.
- Some researchers are now challenging this decision.

### What was the 2006 IAU's decision?

- The IAU, in 2006, designated Pluto a 'dwarf planet' along with Ceres in the asteroid belt and Xena.
- Xena is an object in the Kuiper belt which is an icy ring of frozen objects that circle the solar system beyond Neptune's orbit.
- The designation was a bid to overcome sentiment and go by scientific rationale.
- The meeting accordingly defined three conditions for a celestial object to be called a 'planet' -
  - i. it must orbit the Sun
  - ii. it should be massive enough to acquire an approximately spherical shape
  - iii. it has to 'clear its orbit' i.e. be the object that exerts the maximum gravitational pull within its orbit
- 'Dwarf planets', on the other hand, need to only satisfy the first two conditions.

### Why is Pluto not a Planet?

- As per the third condition, if an object ventures close to a planet's orbit, it will either collide with it and be accreted, or be ejected out.
- But, in case of Pluto, it is affected by Neptune's gravity.
- It also shares its orbit with the frozen objects in the Kuiper belt.
- Based on this, the IAU deemed that Pluto did not 'clear its orbit' (the third rule).
- Hence, it was designated a dwarf planet.

### What is the contention here?

- **Third rule** - The above rationale has been questioned by some who put forth several exceptions to the third rule.
- They cite the manner in which scientific tradition has dealt with the taxonomy of planets.
- The only work in history that used the third rule to classify planets was an article by William Herschel in 1802.
- It is also argued that this work was based on reasoning and observations that have since been disproved.
- However, the argument is not a strong enough case to give up what is, in fact, a sensible rule.
- Evidently, physics has many examples where an idea once discarded for being incorrect, later emerged in a different form and gained acceptance.
- **Planet** - Given these, even if Pluto were to be re-designated a planet, many more complications would arise.

#### International Astronomical Union (IAU)

- The International Astronomical Union (IAU) was founded in 1919.
- Its mission is to promote and safeguard the science of astronomy in all its aspects through international cooperation.
- It serves as the internationally recognized authority for assigning designations to celestial bodies and surface features on them.

- Charon, Pluto's moon, is much too large to be called a satellite.
- Judging by this, the Charon-Pluto system should then rightly be called a binary planet system.
- This would then lead to classifying several other sets of bodies as binary planets.
- Also, both the Kuiper Belt and the Oort cloud contain objects that can then be called planets, thereby complicating the issue.
- Oort cloud is a shell of icy objects that surrounds the entire solar system far beyond the Kuiper belt.
- Denying planetary status to Pluto is the easy way out of the debate at this stage.
- Hence, Pluto remains a dwarf planet, although an exceptional one.

### 13. ENVIRONMENT

#### 13.1 Flooding and Soil Degradation

##### What is the issue?

- The recent floods in Kerala and Parts of Kodagu in Karnataka led to soil erosion.
- The gradual loss of soil productivity can have a lasting impact on the local economy.

##### What impact do floods and soil erosion make?

- Soil degradation due to flooding is a serious concern.
- An estimated 14 million hectares of land suffer soil degradation due to flooding annually in India.
- E.g. After the 2009 floods in North Karnataka, 13 flood-hit districts lost around 280 million tons of top soil.
- It also led to loss of soil nutrients across 10.75 million hectares of farmland.
- Under market prices, the replacement of nutrients such as nitrates, phosphates and iron would have cost around Rs. 1,600 crore.
- Besides, the cost of replenishing the organic material lost would have cost nearly Rs. 850 crore.
- In addition, considerable amount of time and concerted programmes of recovery are needed to recover and replace the soil productivity.
- At present, soil profile of affected districts in Karnataka indicates "shallow or very shallow" soil depth.
- They also exhibit organic carbon deficiency, and low productivity of land.

##### Is flooding always destructive to soil health?

- Soil takes thousands of years to form through natural processes and through recent inputs by farmers.
- Floods result in this being swept away to be dumped in reservoirs or in the sea.
- However, not all floods are bad for the soil.
- E.g. floods along the banks of the Ganga, Kosi, Brahmaputra.
- These and other rivers emanating from the mountains carry with them, loosened alluvial soil.
- They wash over farmlands as well as replenish flood plains with fertile soil.
- However, in south and central India, floods wash away rich, weathered soils that are deposited in reservoirs or as sand bars along the river bed or in the sea.

##### How to deal with it?

- Agricultural and plantation practices to reduce the incidence of soil erosion should be employed effectively.
- Soil replenishment should be a part of the rehabilitation program in flood-affected areas.
- State agriculture universities, with the help of earth observing satellites, should assess the intensity of the problem.
- With this, consistent and long lasting effort is needed to boost the lost soil health and productivity.



### 13.2 UN Framework Convention on Climate Change Conference

#### Why in news?

The conference of the UN Framework Convention on Climate Change recently ended in Bangkok.

#### What were the outcomes of the meet?

- The purpose of the meet was to draft a rulebook for the Paris Agreement ahead of a crucial international conference in Poland in December.
- But it ran into difficulties over the issue of raising funds to help poorer nations.
- Some developed countries led by the U.S. are unwilling to commit to sound rules on raising climate finance.
- Earlier, U.S. under the Trump administration, has rejected the Paris agreement in which the rich countries pledged to raise \$100 billion a year by 2020 to help developing countries reduce their greenhouse gas (GHG) emissions.

#### Why it is unfair on the part of developed countries?

- Historical the developed countries have contributed heavily to the accumulated CO<sub>2</sub> burden.
- It now measures at about 410 parts per million(ppm) of CO<sub>2</sub> in the atmosphere, up from 280 ppm before the industrial revolution.
- If scientific estimates are correct, the damage already done to the West Antarctic Ice Sheet is set to raise sea levels.
- A 2° Celsius rise in global temperature will also destabilise the Greenland Ice Sheet.
- This will also drive more mass migrations of people on account of failed agriculture and the associated conflicts.
- Hence the developed countries are ignoring their historical responsibility.
- Obstructing the transition to a carbon-neutral pathway is also short-sighted, simply because the losses caused by weather events are proving severely detrimental to all economies.
- Additionally, walking out of developed countries have created a financial and leadership vacuum.
- This was followed by other developed countries that are unwilling to create sustainable financial commitment to realise the objectives of Paris agreement.

#### What are the responsibilities of India and China in this regard?

- There is international pressure on China and India to cut GHG emissions.
- Both countries have committed themselves to a cleaner growth path.
- India reported an annual CO<sub>2</sub> equivalent emissions of 2.136 billion tonnes in 2010 to the UNFCCC two years ago.
- Recent estimates show that the GHG emissions intensity of its GDP has declined by 12% for the 2005-2010 period.
- China has suspended construction of 103 new coal-fired power plants last year, and announced plans to invest more than \$360 billion into renewable energy by the end of the decade.
- Both have the responsibility of climate leadership in the developing world and Innovative instruments (climate bond, social impact bond, catastrophic risk insurance, etc.,) could be leveraged to realise a “Green Economy”.
- It needs to be accompanied by a supportive framework in the form of a rulebook that:
  - Binds the developed countries to their funding pledges.
  - Provides support for capacity building.
  - Transfer of green technologies on liberal terms.

#### India's Intended Nationally Determined Contributions (INDC)

- To reduce the emissions intensity of its GDP by 33 to 35 per cent by 2030 from 2005 level.
- To achieve about 40 per cent cumulative electric power installed capacity from non-fossil fuel based energy resources by 2030.
- To create an additional carbon sink of 2.5 to 3 billion tonnes of CO<sub>2</sub> equivalent through additional forest and tree cover by 2030.

- Thus the responsibility lies in the domain of both developed and developing countries to go beyond expediency and take the actions needed to avert long-term catastrophe.

### 13.3 Reasons behind Kerala Flood - Post Analysis

#### Why in news?

According to official reports mismanagement of dams was the primary reason for the Kerala floods.

#### What is the role of dams in water management?

- One of the major functions of dams is flood protection to attenuate the flow of water and its impact downstream.
- The golden rule followed in dam management is to maintain a flood cushion (buffer) in case of unexpectedly high rainfall.

#### What is the brief structure of Kerala dams?

- Kerala has 39 major dams, their maintenance is shared between the Kerala State Electricity Board (KSEB) and the Water Resources Department.
- The Periyar is the longest river in Kerala and has the highest discharge potential.
- The major dams across this river that are maintained by the KSEB are Idukki, Lower Periyar, and Madupetty.
- The water from Lower Periyar, Madupetty and Mullaperiyar drains into the Idukki reservoir consisting of the Idukki dam and the Cheruthoni dam.
- The water from the Idukki reservoir and Idamalayar drains directly into the Bhoothathankettu dam, which is the lowermost in the Periyar system, just 15 km from Kothamangalam town.

#### What are the primary reasons of Kerala floods?

- According to India Meteorological Department's study, the rainfall in August was only the sixth highest in the past 143 years (1875-2017) in Kerala.
- All dams in Kerala reached their full reservoir level by July-end, and were thus incapable of containing the water flow from torrential rainfall in August.
- This forced the State government to open the gates of 34 major dams, thereby submerging all the major towns downstream.
- Admittedly, the change in topography due to human interventions and climate change have contributed to the sporadic and excess rainfall.
- The proliferation in illegal stone-quarrying activity has been a major reason for widespread landslides.
- The decision of the incumbent government to reduce the boundary of a quarry from residential buildings to 50 metres has facilitated the mushrooming of the stone quarrying mafia.

#### What are the official findings on flood?

- According to the data released by the State Disaster Management Authority, 85,300 litres of water was released every second from Kakki-Anathode dam, and 47,000 litres from Pampa dam at 4 p.m. on August 14.
- The shutters of both dams were raised at night. By 10 p.m., 4.68 lakh litres of water started gushing out of both dams.
- The State government also failed miserably in coordinating with the Tamil Nadu government on the release of water from Upper Sholayar despite the State heading the joint water regulatory board.
- Data posted by the KSEB reveals that the water released into the Periyar river basin from the Idukki and Idamalayar dams surged from 46.26 mcm/day on August 14 to 200 mcm/day the next day. This caused the towns downstream to be totally submerged.
- An analysis of spill from these dams reaffirms the gross mismanagement in the operation of dams.

#### What measures need to be considered in this regard?

- The operation and maintenance of dams is governed by the guidelines of the Central Water Commission and water management protocols.

- The safety, precautions and evacuation measures to be followed while declaring different alerts (blue, orange, red) are clearly mentioned in these guidelines.
- The guidelines state that the reservoir control schedule, release procedure and gate operation procedure have to be done only after assessing the potential impact of the procedures.
- The State government and the KSEB opened 34 of the 39 major dams simultaneously, controlled release from these dams would have reduced the gravity of the calamity.
- Apart from that the disaster management system needs to be revamped by roping in experts from different areas.
- The State government must also order a judicial inquiry into the gross mismanagement of dams in the State.

### 13.4 Shoot-at-sight order for a Tigress

#### Why in news?

The Supreme Court permitted the Maharashtra forest department to shoot a “man-eating” tigress recently.

#### What are the concerns raised against?

- Officials of the forest department have declared T1 a “man-eater” as the animal, along with her cubs, ate 60% of a human corpse.
- It was accused of killing more than a dozen people over the last two years.
- But it was argued that all the kills have taken place within designated forest areas or on their periphery.
- The Pantharkawada forest is home to spillover tigers from the nearby Tipeshwar Wildlife Sanctuary.
- With rampant Human encroachment, contiguity of the habitat was disrupted.
- The forest has scant food for wild herbivores, hence it also multiplies the chances of man-animal conflict.
- There is heavy pressure of illegal grazing, with livestock consuming a huge proportion of the food and water meant for wildlife.
- Locals take cattle and goats “on contract” from rich owners to graze them illegally in the forest.

#### What should have been done?

- The **National Tiger Conservation Authority protocols** say that the human beings killed due to chance encounters may also be eaten by the animal.
- However, this is not sufficient for classifying a tiger as a man-eater, especially for an encumbered tigress supporting two cubs, in a low prey base area.
- Hence, the Forest Department appears to be apathetic towards the basic tenets of habitat management.
- Citing human and political pressure, wildlife coming into conflict situations is regularly eliminated.
- The court has observed that the directions for Standard Operating Procedure under Section 38(O) of Wildlife Protection Act are merely suggestive and not mandatory.
- It was also alleged that the forest department has already roped in a “sharp shooter” to kill the tigress, instead of first trying to tranquillise her.
- This case reveals that a distinction has to be made between a tigress killing a human and a habitual man-eater.
- Hence it is necessary to keep wild habitats safe for wildlife to ensure their long-term survival.

### 13.5 Cauvery Basin - Ecological concerns

#### What is the issue?

Voices have been raised against the proposal of railway lines in Cauvery river basin in recent times.

#### What is its importance?

- The Cauvery basin drains an area of about 81,000 sq. km across three states and a union territory.
- The river originates in Kodagu district while it irrigates agricultural fields, generates electricity, and provides drinking water to downstream communities across south India.



- The Cauvery and its tributaries contribute the bulk of water to the Krishna Raja Sagara dam which is the primary water source for Bengaluru.
- But the proposed Mega railway projects are not only economically unviable but also ecologically damaging.
- It poses a clear threat to the long-term water security of the three States that depend on the Cauvery.

#### What are the major implications?

- **Ecological** - All the tracks will cut through large swaths of agricultural farms and fields as well as Protected and Reserve Forests.
- These areas are spread across Kodagu and Mangaluru districts of Karnataka and Wayanad and Kannur districts of Kerala.
- In its feasibility report of the Mysuru-Thalassery line, the Delhi Metro Rail Corporation stated that the project would not be beneficial to the State.
- With the protests by the people against the project, the plan to build the line was scrapped.
- However, plans to build the tracks will re-emerge in time sooner or later.
- **Forest cover** - India State of Forests report 2017 noted that Kodagu lost 102 sq. km. of tree cover in just two years.
- The recent proposal might result in forest-depletion in the Kodagu basin that will have reduced capacity to capture and store rainwater.
- Raised railway tracks will also impede wildlife and could result in the deaths of endangered animals such as elephants.

#### What should be done?

- Studies by the Indian Institute of Tropical Meteorology have found evidence for increasingly variable monsoon rainfall in the Kodagu basin.
- A recent study has revealed that activities like construction, illegal mining and hill cutting are increasingly responsible for the uptick in fatal landslides, particularly in Asia.
- This makes preserving forest cover more vital in order to mitigate the collateral effects of these extreme events.
- A **UN report**, Water for a Sustainable World, pointed out that the gap between the availability of water and our need for water is only going to increase.
- The journal **Nature** has reported that diminished access to water resources increases the risk of social unrest, political instability, intensified refugee flows and armed conflicts even within borders.
- The variable nature of monsoons makes India one of the most vulnerable regions to water-related disasters associated with climate change and extreme weather events.
- Hence, preserving existing forests in the Cauvery watershed can reduce the effect of floods and droughts, while recharging groundwater.
- Economists should estimate the monetary and human cost of cities and implement policies focused on achieving and maintaining sustainable water resources.
- Good water governance of the nation's watersheds will be key to its sustainable future.
- Hence, protecting the Cauvery's source is essential for the sustained well-being of the entire basin.

### 13.6 Construction and Demolition(C&D) Waste

#### What is the issue?

- The Supreme Court has stayed construction activity in States that do not have a solid waste management policy.
- In this context, understanding the Construction and Demolition (C&D) Wastes' potential becomes essential.

### What is Construction and Demolition Waste?

- Construction and demolition waste (C&D) is generated during the construction, renovation, and demolition of buildings or structures.
- These wastes include materials such as concrete, bricks, wood and lumber, roofing, drywall, landscape and other wastes.
- Construction and Demolition Waste Management Rules 2016 was released by Ministry of Environment.
- It clearly defines the duties of Waste Generator, Service providers and Contractors, State Government and Local Authorities and Pollution Control boards.
- C&D wastes can revolutionize the construction industry, especially the Housing Industry, if they are properly reused.

### What are the guidelines in place?

- Earlier in 2012 the Ministry of Urban Development urged States to set up C&D waste management facilities.
- The Central Pollution Control Board (CPCB), in 2017, brought out the guidelines on Environmental Management of C&D Wastes in India.
- It observed that Construction accounted for nearly 65% of the total investment in infrastructure.
- Therefore it becomes more important to know how to effectively manage construction and demolition waste.
- Further the CPCB's Waste Management Rules of 2016 and the guidelines 2017 mentions clear timelines on
  - i. formulating policies
  - ii. identifying sites for processing
  - iii. commissioning the wastes

### What are the concerns?

- Despite the above, the performance of industry and the State pollution control boards is poor.
- Around 25-30 million tons of C&D waste is generated annually in India of which only 5% is processed.
- It is significant that 36% of C&D waste comprises soil, sand and gravel.
- This waste impacts soil fertility and is a health hazard in urban areas.
- The virtual absence of recycling also goes against India's commitments with respect to carbon emission reduction.
- There is an urgent need to recycle C&D waste.
- This is because the rampant sand mining is already destroying river beds and eventually worsening the impact of floods.

### What could be done?

- Promoting Green buildings, which entail that C&D waste is utilized, can be made mandatory all over the country.
- At present they are only incentivized in certain States.
- As the 2016 rules have pointed out, the Bureau of Indian Standards and Indian Roads Congress should initiate processes for the use of recycled material.
- For example, pavements and drainage structures can be made this way.
- Recycling will reduce housing costs, given the materials shortage, and can be an integral aspect of 'affordable housing'.
- The construction sector should be more environmentally responsible, by shifting to the use of recycled water and recycling its own waste.
- All stakeholders, especially States and industry, need to create an environmentally sustainable ecosystem.





### 13.7 Draft India Cooling Action Plan

#### Why in news?

The Ministry of Environment, Forests and Climate Change has released a draft India Cooling Action Plan (ICAP).

#### What is the Plan on?

- The many high-temperature cities in India are only set to get hotter in the coming future.
- The requirement for cooling is thus being recognised as key to health and well-being.
- The ICAP comes as an effort to assess this requirement and plan ahead.
- The draft by the MoEF Ozone Cell provides a 20-year perspective, with projections for cooling needs in 2037-38.
- It aims to provide sustainable cooling while keeping in mind, the need to protect the ozone layer from substances that can deplete it.

#### What are the highlights?

- **India** - The document puts India at the bottom in “access” to cooling, compared to the rest of the world.
- This is reflected in “low per-capita levels” of energy consumption for space cooling.
- It stands at 69 kWh for India as against the world average of 272 kWh.
- **Requirement** - The cooling requirement in India is projected to grow around 8 times by 2037-38.
- This is in terms of tonnes of refrigeration (TR) required.
- The building sector shows the most significant growth in required TR, nearly 11 times as compared to 2017-18.
- The cold-chain and refrigeration sectors grow around 4 times the 2017-18 levels.
- The transport air-conditioning grows around 5 times the 2017-18 levels.
- The growing transport sector and income levels will increase ownership of cars, a majority of these air-conditioned.
- It is thus expected to have a growth rate of almost 9% annually up till 2040.
- For space cooling, room air-conditioners constitute the dominant share of cooling energy consumption.
- It was around 40% in 2017-18 and projected to grow to around 50% in 2037-38.
- **Approach** - The draft looks at two scenarios:
  - i. a reference scenario that assumes current policies and level of effort
  - ii. an intervention scenario that factors in impacts of new interventions
- The intervention scenario suggests that the projected total refrigerant demand can be reduced by 25-30% by 2037-38.
- This is achievable only through improvements in cooling equipment efficiency, and operation and maintenance (O&M) practices.

#### What are the suggestions made?

- The MoEF states that the plan takes a holistic and balanced approach.
- It proposes combining active (air-conditioning) and passive cooling strategies.
- For instance, it considers
  - i. passively-cooled building design that deploys natural and mechanical ventilation
  - ii. promoting the use of energy-efficient refrigerant
  - iii. adoption of adaptive thermal comfort standards to specify pre-setting of temperatures of air-conditioning equipment
  - iv. development of energy-efficient and renewable-energy-based cold chains for perishable foods



- Even by 2038, a significant percentage of households will not be able to afford refrigerant-based cooling equipment.
- Therefore, wider proliferation of thermally efficient residential built spaces is required.
- They should have reduced heat load and enhanced ventilation.
- This should be coupled with efficient non-refrigerant-based cooling equipment, such as fans and coolers.

#### **What are the global commitments?**

- A large part of the cooling demand is met through refrigerant-based cooling.
- These refrigerants are regulated under the Montreal Protocol.
- It regulates on Substances that Deplete the Ozone Layer, and India is a signatory to it.
- In 2016, the Kigali Amendment to the Protocol was made.
- India and few other developing countries agreed to phase down hydrofluorocarbons (HFCs) by 85% of their 2024-26 levels by 2047.
- HFCs are commonly used in air-conditioners and as refrigerants.

### **14. INTERNAL SECURITY**

#### **14.1 Transparency in Rafale deal**

##### **Why in news?**

Former French president recently said that the Indian government had “proposed” Anil Ambani’s Reliance Defence as the offset partner for the Rafale aircraft deal. Click [here](#) to know about the full controversy

##### **What is the current controversy?**

- Under defence offset, a foreign supplier of equipment agrees to manufacture a given percent of its product (in terms of value) in the buying country.
- Dassault Aviation (French manufacturer) has 'chosen' Reliance Defence Ltd (RDL) as the Indian partner to fulfil offset obligations of the Rafale deal.
- Both companies have already announced setting up of a joint venture to manufacture aerospace components.
- Former French President François Hollande has now stated that it was the Indian government that suggested the RDL.
- The charge has raised concerns of crony capitalism in the process of the deal.
- It seems to be reinforcing the allegation that the deal was structured to favour an industrialist.
- The opposition parties have accused the NDA government of favouring the RDL over the state-run Hindustan Aeronautics Ltd.

##### **What are the clarifications made?**

- Clarificatory statements were soon issued by the Centre, the French Foreign Ministry and Dassault.
- The Indian government reiterated that governments have no role in offset contracts, which are purely commercial.
- The choice of offset partners is entirely that of the manufacturer (Dassault Aviation).
- The French government also said much the same as what India said.
- Dassault’s statement reaffirmed that it had 'chosen' to tie up with Reliance Defence.
- But these clarifications did little to clearly address what Mr. Hollande had said.
- The question that if the Centre 'suggested' a partnership with Reliance Defence remains unanswered.

##### **What is the way forward?**

- Defence modernisation would become the real victim if the political war over Rafale continues.
- So greater transparency is the only way to clear all the controversy around the deal.

- Private briefings to Opposition leaders and the disclosure of all information are good starting points.
- This should however not jeopardise national security or impact the aircrafts' operational capability.
- Besides, the decision to reject the formation of a Joint Parliamentary Committee to examine the deal should be reconsidered.

## 14.2 Committee on Extra-judicial Killings in Assam

### Why in news?

The Gauhati High Court has recently quashed the appointment of a committee that had probed the alleged extra-judicial killings in Assam.

### What is the case about?

- It relates to the extra-judicial killings in Assam during 1998-2001, often described as "secret killings".
- Close relatives of a number of United Liberation Front of Asom (ULFA) members were shot by unidentified killers.
- A committee headed by Justice K N Saikia was formed in 2005 to look into this.

### What were the Saikia panel findings?

- The committee submitted its report in 2006-07.
- It blamed the Home Department and sections of the government machinery of being involved in the killings.
- The report alleged a nexus between police and certain surrendered ULFA members.
- It coined the term "ulfocide", and defined it as a general plan for killing of ULFAs, their families and relatives.
- It claimed that these were caused after ULFA families failed to persuade their relatives to come for peace talks.
- It noted that the similarities in the killings indicate the remote planning from higher authorities.
- Also, the weapons used were of a type generally used by police or the military.
- Besides, there was police patrolling on the spot prior to and after the killings, but not during the time of the killings.

### Why was the committee quashed?

- Four successive panels probed the killings and the Justice Saikia headed committee was the last.
- Notably, the earlier J N Sarma Commission probed six killings and submitted an interim report on three.
- The Saikia committee was thus challenged on the ground that the previous panel was still active.
- As, under Sec 7 of Commissions of Inquiry Act, a gazette notification for discontinuation of an inquiry commission is mandatory.
- But no such notification was issued for the Sarma Commission.
- The court has now held that the Saikia panel was legally invalid.

### What are the other concerns?

- The Saikia Commission's report was said to be self-contradictory in parts.
- This is because at one point it says that "there is no evidence to pinpoint responsibility".
- But at another, it blames the then Home department of remotely orchestrating the killings.
- The investigation was also alleged to be politically motivated.

## PRELIM BITS

### GEOGRAPHY

#### "Positive Update" on Australia's Great Barrier Reef

- Dire warnings of reef die-off were given after massive coral bleaching in 2016 and 2017.
- Recently, Tourism and Events Queensland has issued a "positive update, reporting that some affected areas are showing "substantial signs of recovery."
- The Great Barrier Reef is the longest coral reef in the world and the first coral reef ecosystem to be awarded Unesco World Heritage Status.
- It stretches more than 1,430 miles along Queensland's spectacular coastline.



- Coral bleaching occurs when coral experiences stress from heightened water temperatures or poor water quality.
- In response, the coral ejects a photosynthetic algae called zooxanthellae, which removes the coral's distinctive color.
- If the stress conditions persist, the coral will die.
- But if conditions return to acceptable levels, some coral can reabsorb the substance and recover.
- Coral bleaching occurs in multiple stages, ranging from the equivalent of a mild sunburn to coral mortality.

### Mangkhet Typhoon

- It is a super storm of category 5, with winds of more than 200 kph (124 mph) which tore across the northern tip of the Philippines.
- It brought heavy rain and causing widespread power and communications outages.
- A **hurricane** is a storm that occurs in the Atlantic Ocean and north eastern Pacific Ocean, a **typhoon** occurs in the north western Pacific Ocean, a **cyclone** occurs in the south Pacific or Indian Ocean, a **willy-willy** in south-west Australia.

### Spring Water System

- The word "Spring" means to leap from the ground.
- Natural springs are points on the earth surface through which ground water emerges and flows.
- Water from confined aquifers is forced out through a cave to make artesian wells.
- Sometimes springs are formed due to pressure from an underground water source which are usually called as "Hot Springs".
- Natural springs acts as a source of water for both drinking and irrigation.
- A NITI Aayog constituted group of experts has urged the government to set up a dedicated mission to revive spring water systems in the Himalayan States.
- Springs are often the only source of irrigation in the Himalayan region with 64% of the total cultivable area fed by springs.
- In the Eastern Himalayas, Meghalaya has the highest number of villages having spring sources and Sikkim has the greatest density.
- In the Western Himalayas, Jammu & Kashmir had both the highest number of villages with springs and the greatest density.
- The task force also mooted an idea of introducing a "Spring Health Card", preparing a digital atlas of the country's springsheds, training 'para-hydrogeologists' who could lead grassroots conservation.

### Kotri Barrage

- In a recently held meeting of permanent Indus commission, it was agreed that Pakistan will allow India to inspect the Kotri barrage in the lower Indus.
- New Delhi has agreed to Islamabad's request for a special inspection of the hydroelectric projects in the Jhelum river basin, including the Kishanganga scheme.
- It is a diversion dam used to control the amount of water passing through.
- It is located in the lower Indus river, Sindh province of Pakistan.
- The right-bank canal provides additional water to the city of Karachi.
- The other important barrages in the lower Indus are Guddu and Sukkur.

**Indus Dolphin Survey**  
March - April 2001  
From Jinnah to Kotri Barrage



### Permanent Indus Commission

- As per the Indus Water Treaty between India and Pakistan, Permanent Indus Commission should meet atleast once in a year.
- The commission has experts who look into issues and disputes on the ground over the utilisation of the waters of six rivers of the Indus system.
- Under the treaty, India has full use of the three “eastern” rivers (Beas, Ravi, Sutlej).
- Pakistan has control over the three “western” rivers (Indus, Chenab, Jhelum), although India is given rights to use these partially as well for certain purposes.
- The recent meeting was held in Lahore.

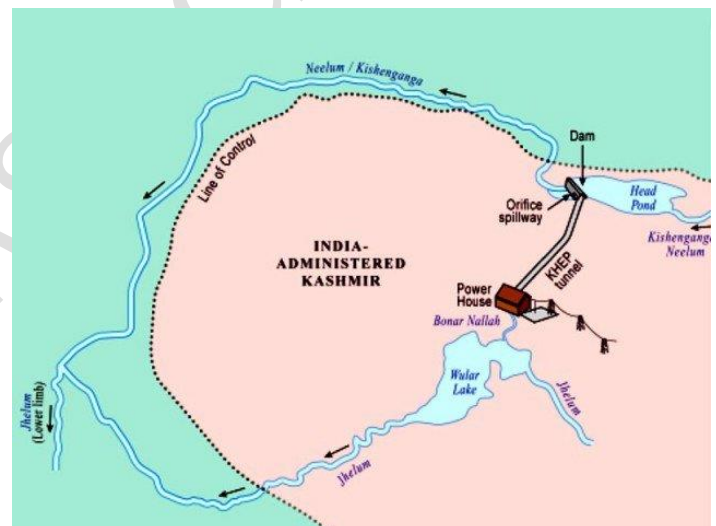
Click [here](#) to know more about Indus river system.

### Kishanganga Project

- Kishanganga dam is located in the Gurez Valley, north of Srinagar.
- It lies to the north of Wular Lake.
- It is a 330 MW power project, and is expected to generate 1,713 million units per annum by diverting water from Kishanganga River to an underground powerhouse.
- The project is operated by National Hydroelectric Power Corporation (NHPC), will benefit several north Indian states and will provide 12% of its generated power to J&K.

### Flood Forecast System

- The Kolkata Municipal Corporation has recently launched the country's first flood forecasting and early-warning system.
- It was launched with the support of the Asian Development Bank.
- It will provide real-time data on inundation, rainfall intensity, temperature, air quality and other climate-related data.



## POLITY

### Article 341 and 342

- Article 341 of the constitution define as to who would be Scheduled Castes with respect to any State or UT.
- Article 342 of the constitution define as to who would be Scheduled Tribe (ST) with respect to any State or UT.
- The President of India in consultation with the Governor of a particular State may notify the castes, races or tribes be deemed to be Scheduled Castes (A-341) and to be Scheduled Tribes (A-342).
- Parliament may by law include in or exclude any caste, race or tribe from the list of SC and ST specified.
- **Reservation in services/post** - The following are the relevant articles which govern the reservation in services/post for SC/STs.
- **Article 16(4)** of the constitution enables State to provide reservation in appointments in favour of any backward class of citizens who are not adequately represented in the services under the State.





- **Article 46** of the Constitution directs the State to promote the educational and economic interests of the weaker sections of the people and protect them from all forms of exploitation.
- **Article 335** states that the claims of the members of the SC and ST shall be taken into consideration in the making of appointments to services and posts in connection with the affairs of the Union or of a State.
- It shall be consistently with the maintenance of efficiency of administration.

### Section 124a of IPC

- Law Commission of India has recently recommended to the Government of India to re-think or even repeal the provision of sedition (Section 124A) from the Indian Penal Code.
- Section 124a, commonly known as Sedition law made words or any visible representation that attempts to bring hatred or contempt, or excite –disaffection towards the government punishable by law.
- They shall be charged with cognizable and non-bailable offence with punishment upto imprisonment for life & fine or imprisonment for 3 years & fine or with fine alone.
- The expression –disaffection includes disloyalty and all feelings of enmity.
- It was introduced in the 1870s, originally to deal with increasing Wahabi activities that posed a challenge to the colonial government.
- The section has been misused in recent times to suppress even minor dissent.
- **Non-bailable offence** – The police cannot release anyone on bail and so the arrested person has to make an application for bail before a magistrate or court.

### Department of Official Language

- It is under the Ministry of Home Affairs.
- Union Home Minister has recently chaired the first review meeting of the Department of Official Language.
- The officials discussed the functioning and issues related to implementation of Hindi language in official work.
- An E-learning platform called the “**Pravah**” is being developed by the department for use in 16 Indian languages including English.
- It will enable anybody learn Hindi through his/her mother tongue with the help of this E-learning platform.
- A software called “**Kanthasth**” has also been developed by the department.
- It is for translating the all kinds of official files from English to Hindi and vice versa to make the translation work simpler and quicker.

### Bru Refugees

- Union government has given a choice to Bru refugees in relief camps in Tripura, to either go back to their villages in Mizoram or be ready to be denied free ration and other facilities.
- In 1990s, Mizo nationalists had demanded that the Brus be left out of the state's electoral rolls, contending that the tribe was not indigenous to Mizoram.
- The Bru militancy was a reactionary movement against Mizo nationalist groups.
- In 1997, the murder of a Mizo forest guard at the Dampa Tiger Reserve in Mizoram allegedly by Bru militants led to a violent backlash against the community.
- It forced several thousand people belonging to Bru community to flee to neighbouring Tripura.
- The displaced Bru people from Mizoram have been living in various camps in Tripura since 1997.
- Recently, the Centre and the state governments of Tripura and Mizoram has recently signed an agreement for repatriation of Bru community from Tripura to Mizoram.

## NOTA

- Election Commission has withdrawn the provision for the NOTA option for elections to the Rajya Sabha and the State Legislative Council.
- Supreme Court has previously given directive not to extend NOTA to elections in Rajya Sabha.
- None of the above (NOTA) is a ballot option designed to allow the voter to indicate disapproval of all of the candidates in a voting system.
- The idea behind the use of NOTA is to allow the voter to register a “protest” vote if none of the candidates is acceptable to her for whatever reason.
- While NOTA votes are tallied, the candidate with the highest number of votes polled is declared elected irrespective of the NOTA total.

## State Disaster Response Fund

- Under the Disaster Management Act 2005, a financial mechanism has been set up by way of National Disaster Response Fund (NDRF) at national level and State Disaster Response Funds (SDRF) at state level.
- The funds are to meet the rescue and relief expenditure during any notified disaster.
- The funding for disaster relief are governed by the National Disaster Management Policy.
- As per the policy, the State governments have to provide disaster relief from their respective State Disaster Response Funds (SDRFs).
- Additional assistance will be provided from the National Disaster Response Fund (NDRF) only for a “calamity of severe nature”.
- SDRF has been constituted in each state in which the state had been, so far, contributing 75 per cent for general category states and 90 per cent for special category states of hilly regions.
- The Centre has announced to enhance its contribution to the (SDRF) from 75 per cent to 90 per cent for general category states with effect from April 1 this year.
- With the declaration, the contribution of all states to the SDRF fund would be only 10 per cent.
- The NDRF is funded through a National Calamity Contingent Duty levied under GST for selected goods and contribution from any person or institutions.

## Model Code of Conduct (MCC)

- Election Commission has recently asserted that MCC will come into effect from the day the premature dissolution of an Assembly in a State or a Union Territory is announced.
- It will remain in force till the new government is formed.
- Election Commission has highlighted the judgment of SC in the SR Bommai versus Union of India case, 1994 to support its view on MCC.
- According to the judgment, the caretaker government should merely carry on day-to-day work and desist from taking any major policy decisions.
- The EC’s decision assumes importance as the Telangana Assembly was prematurely dissolved recently. Its term was to end in June 2019.
- **Prohibitions under MCC** - Neither the caretaker State Government nor the Central Government shall
  1. Announce any new schemes or projects
  2. Use of official resources for any non-official purposes, and
  3. Combining of official visits with electioneering work

## Police Forces Rules

- Ministry of Home affairs has recently notified new rules amalgamating police forces in six Union Territories.
- The rules effectively mean that officers who are not direct IPS recruits could be posted in any of the six UTs and will be at the disposal of the Ministry.

- It would include personnel currently employed in the Delhi Police, A&N Islands Police, Lakshadweep Police, Daman & Diu Police, Dadra and Nagar Haveli Police and Chandigarh Police.
- The Rules will come into effect upon the promotion or direct recruitment of Inspectors to the post of ACP.
- It is being viewed as the first step towards the creation of a central police cadre allowing for the posting of police personnel across the country irrespective of the force they are initially inducted into.

#### Amitava Roy Panel

- Supreme Court has recently set up a panel headed by retired SC Judge Amitava Roy Panel to look in to prison reforms and decongest crowded jails.
- The panel will examine way and means to prevent violence against inmates, get the required legal aid and rehabilitate them.
- It will also examine the feasibility of setting up more open prisons.
- It will examine the functioning of undertrial review committees, availability of legal aid and advice, grant of remission, parole and furlough.

#### Industrial licensing

- Recently, the home ministry has got the power to issue industrial licences for defence manufacturing from Department of Industrial Policy & Promotion (DIPP), Ministry of Commerce and Industry.
- The defence manufacturing includes electronic aerospace and defence equipment manufacturing.
- The following are the 6 industries which require compulsory licensing
  1. Arms and ammunition, explosives and allied items of defence equipment,
  2. Defence aircraft and warships,
  3. Atomic substances,
  4. Narcotics and psychotropic substances,
  5. Hazardous chemicals, distillation and brewing of alcoholic drinks,
  6. Cigarettes/cigars and manufactured tobacco substitutes.

### GOVERNMENT INITIATIVES

#### Drone Regulations

- Directorate General of Civil Aviation (DGCA), has recently published final guidelines for operating drones by ordinary citizens.
- It will come into force on December 1, 2018, the date when the civilian use of drones becomes legal in India.
- DGCA has identified multiple categories of drones, which can be broadly classified as,
  - i. Nano (weighing up to 250 g),
  - ii. Micro (more than 250 g but less than 2 kg) and
  - iii. Small and above (weighing 2 kg or more).
- Every drone bigger than Nano must obtain a unique identification number from DGCA, similar to the registration number for a car.
- Users of bigger drones will be required to obtain a Unique Air Operator's Permit (UAOP), similar to a driver's licence.
- All categories of drones must be flown in the visual line of sight, and only during daytime.
- The operation of drone will be restricted to 50ft above the ground.
- The drones cannot be operated from a moving vehicle, ship or aircraft.
- The regulator has listed 12 categories of **"no-drone zones"** which includes airports, International borders including the Line of (Actual) control, strategic locations notified by Ministry of Home affairs, secretariat complexes in state capitals.



### **Mobilise Your City Initiative**

- It is an international initiative supported by the French and German governments.
- It was launched as a part of COP 21 UNFCCC Paris climate conference.
- It seeks to provide support to 100 cities worldwide in 3 years to engage in sustainable urban mobility planning to reduce greenhouse gas emissions.
- It will be financed by the European Union under its Asia Investment Facility (AIF) through French Development Agency (AFD).
- AFD (Agence Francaise du Development), French Development Agency is a Paris based public financial institution, which imposes the policies stated by the French government.
- India is one of the very first countries to benefit from this initiative.
- Kochi, Nagpur and Ahmadabad are the 3 cities selected for the project.
- India and France have recently signed an implementation agreement under this initiative.
- This initiative will be implemented by the Union Ministry of Housing and Urban Affairs.

### **Programme for International Student Assessment (PISA)**

- India recently decided to end its boycott of the PISA.
- PISA was introduced in the year 2000 by the Organisation for Economic Cooperation Development (OECD).
- It tests the learning levels of 15-year-olds in reading, mathematics and science.
- The test is carried out every three years.
- India decided to stay away from PISA on account of its dismal performance in 2009. In 2012 and 2015, when it was placed 72nd among the 74 participating countries.
- India, subsequently, chose to not participate in the 2012 and 2015 cycle.
- The “out of context” questions were stated as a reason for the poor show.
- The HRD Ministry, now, had formally decided to end this boycott. The ministry will negotiate India’s terms of participation in 2021 with OECD.
- Unlike 2009, when schools in Tamil Nadu and Himachal Pradesh had participated, the Union government will request OECD to administer the test across all schools in Chandigarh in 2021.
- Chandigarh was selected for three reasons.
  - Compact area.
  - To keep number of languages in which the test has to be administered to a minimum and
  - Chandigarh’s record of performing well in learning assessments.

### **Door Step Delivery Scheme (DSD)**

- The scheme is launched by the Delhi government.
- It aims to provide 40 essential government services at the door step of the people.
- The residents of Delhi will get delivery of various government services, including driving licence, marriage certificate and ration card, at the place of their choice.
- In the first phase, 40 services will be provided for a nominal charge of Rs. 50.
- Customers will have to dial helpline and mobile sahayaks will be deployed by the service providers to households for collection of required documents and biometric data.
- The required services once ready, will be delivered through speed post.

### **National Conference of District Disability Rehabilitation Centers**

- The Ministry of Social Justice and Empowerment is organising this conference to improve the functioning of rehabilitation centres.

- District Disability Rehabilitation Centres (DDRC) play a key role in helping people with disabilities access services and provide information on the different schemes.
- It helps in facilitating therapeutic services such as physiotherapy, occupational therapy and speech.
- It facilitates creation of infrastructure and capacity building at the district level for generating awareness.
- So far, 310 districts have been identified for setting up the centres.
- Each DDRC will be run by District Management Team (DMT) which is headed by the District Collector.

### Dairy Processing & Infrastructure Development Fund

- The fund was recently inaugurated by the Ministry of Agriculture and Farmers' Welfare.
- The fund will be set with an outlay of Rs.10000 crore.
- The amount will be sourced from NABARD as a loan and end borrower contribution (as interest for the loan).
- The fund will be disbursed to National Dairy Development Board (NDDB) and National Dairy Development Corporation (NCDC).
- It funds the project focussing on building an efficient milk procurement system through building proper infrastructure and equipments.
- These projects will be implemented by NDDB and NCDC through milk unions and dairy cooperatives.
- Milk cooperatives (end borrowers) will be provided financial assistance in the form of loan at 6.5% interest which will be reimbursed over a period of 10 years.

### e-Sahaj

- It is a portal launched by the Ministry of Home Affairs.
- It will enable individuals and private companies to submit application for security clearances and view its status online.
- The Home ministry is the nodal authority for granting security clearances in certain sensitive sectors.

### e-Vidhan

- e-Vidhan, a part of Digital India Programme, is a Mission Mode Project to digitize and make the functioning of State Legislatures paperless.
- **Ministry of Parliamentary Affairs** is the Nodal Ministry for this project.
- The Ministry desires to roll out e-Vidhan as National e-Vidhan Application (NeVA), covering all 40 Houses including two Houses of Parliament and State legislatures.
- It is to be used by the Legislatures as well as all the Government Departments.
- This project was first executed in Himachal Pradesh which made the Shimla Legislative Assembly the first Assembly in India to go paperless in 2014.
- The **mNeVA (NeVA-mobile app)** is a user-friendly app that has made information on conduct of business in Legislatures accessible anytime, anywhere to everyone.
- It is a work-flow based app deployed in Cloud (Meghraj).
- It helps the Chair of the House to conduct the proceedings of the House smoothly and the members to carry out their duties in the House efficiently.

### Dam Rehabilitation Improvement Project (DRIP)

- Dam Rehabilitation Improvement Project (DRIP) was commenced in the year 2012 as a 6-year project.
- Later, Union Ministry of Water Resources, River Development and Ganga Rejuvenation extended the project period with a revised closure date by June, 2020.
- Cabinet Committee on Economic Affairs has recently approved the revised cost estimate of DRIP.
- The project aims to improve safety and operational performance of 198 Dams, along with strengthening of institutions.





- The funds for this project will be shared by World Bank, State Implementing agencies and Central Water Commission.
- The primary beneficiaries are communities' dependent on reservoir and downstream communities, who are prone to risk associated with dam failure or operational failure.
- It also focusses on capacity building of staff for effectiveness of Dam Safety Organisation to make dams safe from structural and operational point of view.
- Reservoirs in the state of kerala managed by water resources department and state electricity department will get funded under the DRIP programme to the tune of Rs. 514 crore.

#### **National Database on Sex Offenders (NDSO)**

- India became the 9th country in the world to have a National Database on Sexual Offenders (NDSO).
- It is accessible only to law enforcement agencies for the purpose of "investigation and monitoring".
- The database is for those convicted for sexual offences 2005 onwards.
- It includes name, address, photograph and fingerprint details of the convict.
- The database will be maintained by the National Crime Records Bureau, that will also track whether the State police were updating the records on time.
- The database will include offenders convicted under charges of rape, gang rape, Protection of Children from Sexual Offenders Act (POCSO) and eve teasing.

#### **Jan Dhan Darshak**

- It is a mobile application launched by the Finance Ministry as a part of Financial Inclusion.
- It is jointly developed by National Informatics Centre and Ministry of Finance.
- The app provides a citizen centric platform for locating financial service touch points across all providers such as banks, post office, CSC, etc at a given location in the country.

#### **Livestock Census**

- The Livestock Census has been conducted in the country periodically since 1919-20.
- The 20th Livestock Census will be conducted in all districts across the country in participation with all States and Union Territories.
- The ultimate responsibility for conducting the Livestock Census rests with the Animal Husbandry Departments of the States/UTs.
- The Central Government coordinates the work of the States and gives necessary guidance to ensure uniformity in collection of census data.
- It is a Central Sector Scheme with 100% central assistance.
- It usually covers all domesticated animals and headcounts of those animals will be carried out during a specific time period.
- The breeds of various major species including poultry as registered by National Bureau of Animal Genetic Resources (NBAGR) will be covered in the Livestock Census.

#### **Cyber Shikshaa Initiative**

- Project Cyber Shikshaa focus on skilling **women engineering graduates** in the niche field of Cyber Security.
- It is launched by Microsoft & Data Security Council of India (DSCI) in association with Ministry of Electronics & IT (MeitY).
- The primary objective is to connect with underserved women from Tier 2 / Tier 3 cities and to align a career path for them in Cyber Security.
- Centre of Advance Computing (CDAC) will impart training to the selected women candidates from all over India.



- Initially, the project will be rolled out in the following cities - Noida, Patna, Hyderabad and Mohali, followed by other cities in the next phase.
- The program will be a 4-months interactive training course with combination of theory, case studies practical hands-on and projects.

### PRAGATI

- PRAGATI (Pro-Active Governance And Timely Implementation) is a multi-purpose and multi-modal platform existing in the Prime Minister's Office.
- It was launched in 2015 and is not a public web platform.
- It is used exclusively by the Prime Minister to give suitable directions for redressal of grievance.
- It also monitors and reviews compliance on the projects and programmes of the Government of India as well as projects flagged by State Governments.
- It brings on one stage the Secretaries of Government of India and the Chief Secretaries of the States.
- It deploys three technologies - Digital data management, video-conferencing and geo-spatial technology.
- Recently, PM chaired the 29th interaction with PRAGATI and reviewed the progress made in the working of the Pradhan Mantri Khanij Kshetra Kalyan Yojana.

### GOVERNMENT SCHEMES

#### Developments under Swadesh Darshan Scheme

- Swadesh Darshan – It is central sector scheme & one of the flagship schemes of Ministry of Tourism for development of thematic circuits in the country in a planned and prioritised manner.
- The first project under the Scheme was inaugurated in Manipur.
- First Tribal circuit under Swadesh Darshan scheme is going to be inaugurated in Chhattisgarh. This is the second project under the scheme.
- The ministry has sanctioned 4 projects under Tribal circuit to Telangana, Nagaland and Chhattisgarh.
- Ministry of Tourism has recently sanctioned **Malanad Malabar Cruise Tourism Project** under this Scheme.
- It will be focusing on the development of water-based thematic cruise experiences in North Kerala.
- The thematic cruises will be developed in Valapattanam and Kuppam River.
- Public Private Partnership model will be adopted to develop infrastructure facilities such as Passenger Terminals, Boat Terminals, Jetties, Boat Race Gallery etc.

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

#### Atal Bimit Vyakti Kalyan Yojna

- Employees' State Insurance Corporation under Ministry of Labour and Employment has recently rolled out Atal Bimit Vyakti Kalyan Yojna.
- The scheme covers Insured Persons (IP) covered under the Employees' State Insurance Act, 1948.
- It aims to provide cash relief to unemployed insured person.
- The relief will be payable in cash directly to their Bank Account in case of unemployment and while they search for new engagement.

#### AyushmanBharat - Pradhan Mantri Jan Aarogya Yojana

- Ayushman Bharat – Pradhan Mantri Jan Aarogya Yojana (AB-PMJAY) was recently launched in Ranchi, Jharkhand.
- It is the “world's largest government funded healthcare program” targeting more than 50 crore beneficiaries.
- It provides universal Healthcare through access of Health and Wellness Centers (HWCs) at the primary level and engagement of public and private sector at the secondary & tertiary levels.



- The first component **Health and Wellness centers** covers both maternal and child health services and non-communicable diseases, including free essential drugs and diagnostic services.
- First 'health and wellness centre' has been inaugurated in Bijapur district in Chhattisgarh.
- The second component is the **Pradhan Mantri Jan Arogya Yojana (PMJAY)**, which aims to reduce out of pocket hospitalisation expenses.
- It will provide a cover of up to Rs.5 lakhs per family per year, for in-patient secondary and tertiary care hospitalization.
- It will cover over 100 million vulnerable families, which is about 500 million people, the poorest 40% of India's population.
- It will provide cashless and paperless access to services for the beneficiary at the point of service.
- The scheme is creating a cadre of certified frontline health service professionals called Pradhan Mantri Aarogya Mitras (PMAMs).
- PMAM will be primary point of facilitation for the beneficiaries to avail treatment at the hospital and thus, act as a support system to streamline health service delivery.

## **NATIONAL INSTITUTES IN NEWS**

### **National Technical Research Organisation**

- India's first missile tracking ship is being built for NTRO by Hindustan Shipyard Limited (HSL).
- NTRO is India's technical intelligence agency.
- It is working under the supervision of the Prime Minister's Office and the National Security Adviser.
- The organisation has the same "Norms of Conduct" as Intelligent Bureau (IB) and Research and Analysis Wing (RAW).
- In 2017, ministry of home affairs through its notification, listed NTRO under The Intelligence Organisations (Restriction of Rights) Act, 1985.
- The provisions of the act are,
  - i. It prevents employees of a notified agency from forming unions/associations,
  - ii. puts restrictions on the employee's freedom of speech,
  - iii. bars any communication with the press, or publishing a book or other document without the permission of the head of the intelligence organisation.

### **CARA**

- Central Adoption Resource Authority (CARA) is a statutory body of Ministry of Women & Child Development, Government of India.
- It functions as the nodal body for adoption of Indian children and is mandated to monitor and regulate in-country and inter-country adoptions.
- It is designated as the Central Authority to deal with inter-country adoptions in accordance with the provisions of the Hague Convention on Inter-country Adoption, 1993, ratified by Government of India in 2003.
- The eligibility criteria under Adoption Regulations, 2017, permit single women to adopt a child of any gender, while single men can adopt only boys.
- When a married couple seeks to adopt a child, it needs to give its consent for adoption and should be stable marriage for at least two years.
- Earlier this year, CARA has issued a circular disallowing individual in a live-in relationship to adopt children.
- Now, Individuals in a live-in relationship will once again be able to adopt children from and within India.

## **BILATERAL ISSUES**

### **Air Services Agreement**

- Air services agreements are signed bilaterally to improve seamless air connectivity between two sovereign nations.
- Union cabinet has recently approved the revised air services agreement between India and Morocco.
- Under the agreement, both countries designate one of more airlines.
- These designated airlines of either country
  - i. Have the right to establish offices in the territory of the other country for the promotion and sale of air services.
  - ii. Can enter into cooperative marketing arrangements with the designated carriers of same party, other party and third country.
  - iii. Can operate any number of services to/from the six points specified in the Route Schedule to the agreement.
- These developments will enable the people of each country to travel to the other country leading to better economic and cultural ties.

### **Twin City Agreement**

- Union Territory Delhi government and South Korea has signed a twin city agreement between Seoul and Delhi.
- It is for collaboration on waste management and reviving natural water sources in the National Capital.

### **India-Bangladesh Friendship Pipeline Project**

- This project was recently inaugurated jointly by India and Bangladesh.
- This 130-kilometre pipeline project will connect Siliguri in West Bengal in India and Parbatipur in Dinajpur district of Bangladesh.
- The capacity of the pipeline will be one million metric tonnes per annum.
- This project will fulfil energy needs at a cheaper rate to Bangladesh's northern part.

### **e-VidyaBharati & e-ArogyaBharati Network**

- India has recently launched digital bridge called e-VidyaBharati & e-ArogyaBharati Network between India and Africa.
- The network covers 48 African countries and operates based on satellite technology.
- It aims at providing quality tele-education and tele-medicine facility by linking select Indian Universities, Institutions and Super Specialty Hospitals to African educational institutions and hospitals.

## **INTERNATIONAL ORGANISATIONS**

### **EAS-EMM**

- East Asia Summit- Economic Ministers' Meeting (EAS-EMM) was recently held in Singapore.
- The meeting was attended by Economic Ministers from 10 ASEAN countries and their 8 dialogue partners.
- Brunei, Cambodia, Indonesia, Laos, Malaysia, Myanmar, Philippines, Singapore, Thailand, Vietnam are ASEAN members.
- The dialogue partners are Australia, China, India, Japan, Republic of Korea, New Zealand, the Russian Federation and the United States of America.
- It was followed by the 15th ASEAN Economic Ministers - India Consultation.

### **Asia-Europe Meeting**

- Republic of Korea is organising 3<sup>rd</sup> Asia-Europe Meeting (ASEM) conference on 'Global Ageing and Human Rights of Older Persons'.



- It will be attended by international institutions including the UN, regional institutions such as UNESCAP, UNECE, European Union, ASEAN and international NGOs.
- India is also taking part in this conference. Ministry of Social Justice and Empowerment will represent India.
- ASEM) is an exclusively Asian–European forum, established in 1996 at the first summit in Bangkok, Thailand.
- It currently has 51 nations from the European Union and South Asia and 2 regional organisations (ASEAN, EU) as partners.
- The 3 pillars of ASEM are Political, Economic, Socio Cultural and Educational.
- In 2016, it adopted Ulaanbaatar declaration to resolve fight against terrorism was signed in the ASEM summit.

### International Whaling Commission

- The 67<sup>th</sup> biennial meeting of International Whaling Commission (IWC) was organized in Brazil.
- IWC was set up for the proper conservation of whale stocks and orderly development of the whaling industry.
- Its objectives are
  - i. Setting out catch limits by species and area which may be zero as it the case for commercial whaling,
  - ii. Designating specified areas as whale sanctuaries,
  - iii. Protection of calves and females accompanied by calves,
  - iv. Prescribe open and closed seasons and areas for whaling and restrictions on hunting methods.
- The headquarters of the IWC is in Impington, near Cambridge, England.
- Currently, 88 nations are members to this commission including India.
- In 1982 the IWC adopted a moratorium on commercial whaling, which is opposed by Japan, Russia, and other nations.
- It allows non-zero whaling quotas for aboriginal subsistence and member nations may issue 'Scientific Permits' to their citizens.
- In the recent meeting, Brazil pushed for “Florianopolis Declaration”, which insists that commercial whaling is no longer a necessary economic activity and would allow the recovery of all whale population to pre-industrial whaling levels.
- The resolution banning the commercial whaling was vehemently opposed by Japan, Russia.
- Australia supported the resolution and opposed the attempts to undermine the moratorium.
- Iceland and Norway are the only countries that allow commercial whaling.
- Iceland has come under direct pressure to end whaling from the European Union.
- Aboriginal subsistence hunting is allowed in several countries including the US, Russia, Greenland, and Saint Vincent and the Grenadines in the Caribbean.
- Japan continued to hunt whales despite the moratorium, exploiting a loophole allowing "scientific research".

#### Whale Sanctuary

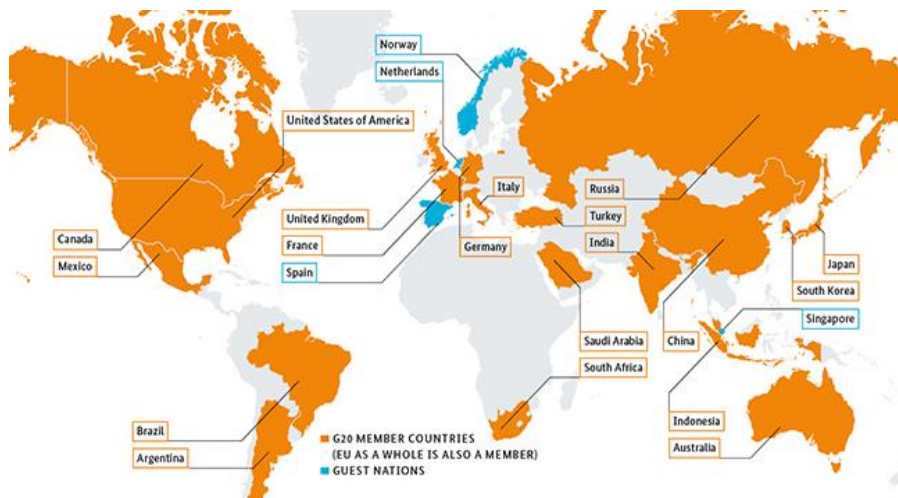
- Whale Sanctuary was proposed in South Atlantic by 39 countries in International Whaling Commission.
- It was meant to provide haven for endangered marine mammals.
- The idea was proposed by Brazil in 2001 in IWC meeting.
- It was co-sponsored by Argentina, Gabon, South Africa and Uruguay.
- In the recently concluded session of IWC in Brazil, pro-whaling nations blocked the proposal of setting up of sanctuary.
- Pro-whaling nations include Japan and Russia.

### G-20 Meeting

- G-20 Trade and Investment Ministerial Meeting is being held in Mar del Plata in Argentina.
- The Ministerial Meeting discuss about building an inclusive trade system that contributes to sustainable and shared growth.
- G20 Digital Economy Ministerial Meeting was held at Salta, Argentina last month.
- G-20 is made up of 19 countries and the EU.



- G-20 members represent 75% of international trade, half of foreign direct investment flows, half of foreign flows and 80% of global production.



### Comprehensive Nuclear Test Ban Treaty

- UN chief has recently reiterated his appeal to 8 nations, including India and the US, to ratify the Comprehensive Nuclear-Test-Ban Treaty.
- CTBT is a multilateral treaty that bans all nuclear explosions, for both civilian and military purposes, in all environments.
- It was adopted by the United Nations General Assembly on 10 September 1996.
- It can only enter into force after it is ratified by eight countries with nuclear technology capacity, namely China, Egypt, India, Iran, Israel, North Korea, Pakistan and the United States.
- China, Egypt, Iran, Israel and the United States have signed but not ratified the Treaty.
- India, North Korea and Pakistan have not signed it.
- According to CTBT, each State Party undertakes not to carry out any nuclear weapon test explosion or any other nuclear explosion, and to prohibit and prevent any such nuclear explosion at any place under its jurisdiction or control.
- The Preparatory Commission for the Comprehensive Test Ban Treaty Organization (CTBTO), an international organization headquartered in Vienna, Austria, was created.

### IAEA Safeguards

- India has decided to place four more reactors under the IAEA safeguards.
- Two Russian-designed Pressurised Light Water Reactors and two Pressurised Heavy Reactors being built with Indian technology will be covered.
- With this, a total of 26 Indian nuclear facilities will be under the international nuclear energy watchdog.
- IAEA is an international organization that seeks to promote the peaceful use of nuclear energy, and to inhibit its use for any military purpose, including nuclear weapons and materials.
- It was established as an autonomous organization which is not under direct control of the UN, but reports to both the United Nations General Assembly and Security Council.
- Unlike most other specialized international agencies, the IAEA does much of its work with the Security Council, and not with the United Nations Economic and Social Council.
- It is widely known as the world's Atoms for Peace organization.
- It is headquartered at Vienna with 168 member nations.
- North Korea has withdrawn its candidature from IAEA.

## INTERNATIONAL ISSUES AND EVENTS

### Chagos Island

- There is a dispute between Mauritius and UK over the sovereignty of Chagos islands in the Indian Ocean.
- It is home to Diego Garcia, the key military base of the U.K. and the U.S. in the Indian Ocean.
- The island was taken by UK before the Mauritius decolonisation.
- After the Independence in 1968, most of the islanders were deported to give the island in lease to US for its airbase.
- The evicted islanders have been campaigning for their right to return home.
- A resolution by Mauritius was passed in UN general assembly asking the International Court of Justice (ICJ) to offer a legal opinion in the issue.
- Twenty-two countries and the African Union are going to appear before ICJ to give their statements.
- India has backed Mauritius over its claim on the disputed Chagos islands.
- Australia and the United States are expected to back Britain's position.

## ECONOMY

### FDI Inflow

- According to RBI data, total FDI inflow in to India stood at USD 37.36 billion in 2017-18 financial year.
- It is a marginal rise over the USD 36.31 billion recorded in the previous fiscal.
- Mauritius remained the top source of foreign direct investment (FDI) into India in 2017-18 followed by Singapore.
- FDI in Manufacturing sector witnessed a substantial decline, whereas in Communication services, retail and wholesale trade, financial services sector witnessed a rise.
- These data reflect the global interest in new areas, including online marketplaces and financial technologies.

### India Post Payment Bank

- India Post Payment Bank (IPPB) was recently launched with an intention to make banking facility available at the doorstep of citizens and leverage the workforce of 300,000 postmen.
- It will be a 100% government owned entity.
- It will act as a bank, allowing accounts to be opened. It will offer zero-balance savings accounts with multiple benefits, including unlimited withdrawals and deposits besides doorstep banking.
- A customer can make deposits into the account but the total amount is limited to Rs 1 lakh.
- Amounts deposited in excess of Rs 1 lakh will get automatically transferred to the savings bank account.
- Other normal services offered by banks like payments and remittance services, mobile payments, transfers, purchases, ATM cards, net banking and third-party fund transfers will all be made available.
- It can issue debit cards but not credit cards.
- However, it cannot lend loans to customers.
- The interest on the IPPB savings account will be the same as what the banks offer, which is 4% per annum.

### Banking Ombudsman Scheme

- Banking Ombudsman is a quasi-judicial authority to enable the resolution of customer's complaint relating to services rendered by Bank.
- All Scheduled Commercial Banks, Regional Rural Banks and Scheduled Primary Co-operative Banks are covered under the Scheme.
- RBI, earlier this year, has extended the scheme to deposit taking Non-Banking Finance Companies (NBFC).
- The authority does not charge any fee for filing and resolving customers' complaints.



- Any person aggrieved by the decisions of Banking ombudsman can approach the Appellate Authority, which is vested with a Deputy Governor of the RBI.

### Internal Ombudsman

- RBI has recently issued guidelines tightening the Banking Ombudsman scheme to strengthen the grievance redressal mechanism.
- In its recent notification, RBI has asked all commercial banks having 10 or more banking outlets to have an independent internal ombudsman (IO).
- IO will review customer complaints that are either partly or fully rejected by the banks.
- This guideline is not applicable for Regional Rural Banks sponsored by commercial banks.
- The Internal Ombudsman Scheme of 2018 mandates banks to grant IO, a fixed term of three to five years, which cannot be renewed.
- The IO can be removed only with prior approval from RBI.
- The remuneration would have to be decided by the customer sub-committee of the board and not by any individual.
- The implementation of the scheme will be monitored by the bank's internal audit mechanism apart from regulatory oversight by RBI.

### Purchase of Gold by RBI

- Reserve Bank of India has bought gold for the first time in nearly a decade.
- The move signals that gold could be in demand as a store of value when returns and capital values of fixed-income bonds are declining in a rising rate environment.
- RBI might also want to create a buffer to meet the redemption needs of bonds sold under Gold Bond Schemes.
- Unlike many other central banks such as the People's Bank of China, RBI does not regularly trade in gold, although the RBI Act permits it to do so.
- According the latest annual report, RBI held 566 metric tonnes of gold in its forex reserve.
- It last bought 200 metric tonnes from the IMF to boost its reserves in November 2009.

### Jan Dhan Yojana Scheme

- It is a flagship financial inclusion scheme launched in 2014 for a period of 4 years.
- The scheme facilitates the opening of bank accounts with zero balance for every household to ensure access to financial services in an affordable manner.
- There are some special benefits like free accident insurance cover, over draft facility for the Jan Dhan account holders.
- The first phase of the scheme focused on opening basic bank accounts and RuPay debit card with inbuilt accident insurance cover of Rs 1 lakh.
- The 2<sup>nd</sup> phase (2015-2018) planned to provide micro-insurance to the people and pension schemes to unorganised sector workers through Business Correspondents.
- Union Finance Ministry has recently announced that it plans to make the scheme open ended with more incentives.
- It has decided to provide the facility of opening zero balance account from every household to every adult.
- The accident insurance cover and overdraft facility have also been increased.
- The free accident insurance cover for those opening Jan Dhan accounts has been doubled to Rs 2 lakh.
- There will be no conditions attached for over-draft of up to Rs 2,000.
- Also, the upper age limit for availing the facility has been hiked to 65 from the earlier 60 years.

### Total Expense Ratio

- The ratio is associated with Mutual Funds investment.



- Mutual funds are investments where an investor entrusts his/her money with an investment manager (of an asset management company) to manage it efficiently.
- This money management comes at a cost, which is usually charged as a percentage of the investment.
- The charge levied is called Total Expense Ratio and money received from the investment is reduced by this ratio.
- For example, if a fund charges 2% as the TER, and the fund produces a gross profit (return) of 15% in a given year, the investor would get 13%.
- SEBI, the regulator of Mutual Funds, has laid down rules on how much an asset management company can charge an investor to manage their funds.

### **Goods and Services Tax Network (GSTN)**

- GSTN provides the technological support to the GST.
- It handles massive amounts of data and deals with crucial data sets such as indirect tax returns and refunds.
- Union Cabinet has recently approved increasing the government stake in GSTN to 100 per cent.
- At present, the government holds a 49% stake, with Centre and states share of 24.5% each.
- The balance 51% is held by five non-government institutions.
- Thus, the government will acquire the entire 51 per cent equity held by the non-government institutions.
- The stake will be acquired equally by the Central and state governments.
- The Cabinet also decided to allow change in the existing composition of the GSTN board.
- It will have a total of 11 directors including a Chairman and a Chief Executive (CEO).
- While 3 directors each will be nominated by the Central and state governments, 3 other independent directors would be nominated by the board of directors.

## **ENVIRONMENT**

### **Report on Pollution**

- Centre for Science and Environment (CSE), a New Delhi-based think tank has released a report titled "The urban Commute".
- The report collected statistics from 14 cities - Delhi, Mumbai, Kolkata, Chennai, Bengaluru and Hyderabad, Ahmedabad, Pune, Jaipur, Lucknow, Kochi, Bhopal, Vijayawada and Chandigarh.
- According to the report, Bhopal has got the top spot for lowest overall emission and energy use from urban commute.
- On the other hand, Delhi ranked last in overall emission and fuel use.
- Kolkata and Mumbai are among the mega cities which emit least due to high usage of public transport and walking.
- The reason attributed for this is sheer number of people, high volume of travel and personal vehicles, and long trip distance.
- The report also highlighted that the increase in greenhouse gas emissions from transport sector were highest among all other sectors in India.

### **Continuous Emission Monitoring System**

- Continuous emission monitoring system (CEMS) is a real time air and water pollution monitoring system.
- It comprises of analytical components and software designed to provide continuous real time measurements of pollution by analyzing representative samples of air and water.
- It is an initiative by Ministry of Environment and Forest (MoEF&CC) and Central Pollution Control Board (CPCB) to strengthen pollution regime.
- In 2014, CPCB makes installation of CEMS compulsory for 17 categories of highly polluting industries, Common Bio-Medical Waste and Common Hazardous Waste incinerators.

- Recently, CPCB has recommended that even non-polluting industries should also consider installing CEMS as a tool of self-regulation.

### WAYU

- It is a device developed by the National Environmental Engineering Research Institute (NEERI), Nagpur-based laboratory of the Council of Scientific and Industrial Research (CSIR).
- It is to address air pollution at high traffic zones, which have lot of buildings in the neighbourhood leading to restricted flow of air called "Street Canyon" effect.
- **Working** - A fan sucks air around the device and pollutants like dust and particulate matter are separate using three filters of different dimensions.
- The air is led into a specially designed chamber where carbon monoxide and hydrocarbons content in the air are oxidized.
- After oxidation, the pollutants will turn into less harmful carbon dioxide using activated carbon coated with titanium dioxide.
- The purified air is then ejected with force into the atmosphere so as to help dilute pollutant content in the outside air.

### World Ozone Day

- 24th World Ozone Day is being celebrated with the theme "Keep Cool and Carry on" : The Montreal Protocol.
- The Montreal Protocol on Substances that Deplete the Ozone Layer has been recognized as the most successful international environment treaty in history.
- It is the only environmental treaty which enjoys universal ratification of 197 UN members countries.
- The protocol and its amendments have banned the use of ozone destroying chemicals and the rate of ozone depletion seems to have slowed.
- Its implementation has not only led to the phase-out of around 98% of ozone depleting chemicals, but also averted more than 135 billion tonnes of carbon dioxide equivalent emissions.

### India Cooling Action Plan (ICAP)

- Union Environment Ministry has recently released India Cooling Action Plan (ICAP).
- ICAP addresses cooling requirement across sectors and lists out actions which can help reduce the cooling demand.
- India is the first country in world to develop such a document.
- Its goal is to provide sustainable cooling and thermal comfort for all while securing environmental and socio-economic benefits for the society.
- This will help in reducing both direct and indirect emissions.
- The interventions under the action plan includes,
  - (i) Recognition of "cooling and related areas" as a thrust area
  - (ii) Reduction of cooling demand across sectors
  - (iii) Reduction of refrigerant demand
  - (iv) Reduction of cooling energy requirements
  - (v) Training and certification of 100,000 servicing sector technicians by the year 2022-23, in synergy with Skill India Mission.

### SATAT Initiative

- It is an initiative by Ministry of Petroleum and Natural Gas.
- It is aimed at providing a Sustainable Alternative Towards Affordable Transportation (SATAT)
- It will promote the use of Compressed Bio-Gas (CBG) production plants and make available CBG in the market for use in automotive fuels.



- It will be launched in association with PSU oil marketing companies, which invites potential entrepreneurs to set up CBG plants.

### Bio-Gas

- Bio-gas is produced naturally through a process of anaerobic decomposition from waste / bio-mass sources.
- Bio-mass sources include agriculture residue, cattle dung, sugarcane press mud, municipal solid waste, sewage treatment plant waste, etc.
- After purification, it is compressed and called Compressed Bio-Gas, which has pure methane content of over 95%.
- CBG is exactly similar to the commercially available natural gas in its composition and energy potential.
- CBG's calorific value (~52,000 KJ/kg) and other properties are similar to Compressed Natural Gas (CNG).
- CBG can be used as an alternative, renewable automotive fuel.
- Benefits of production of CBG on a commercial scale includes,
  1. Responsible waste management, reduction in carbon emissions and pollution
  2. Additional revenue source for farmers
  3. Boost to entrepreneurship, rural economy and employment
  4. Support to national commitments in achieving climate change goals
  5. Reduction in import of natural gas and crude oil
  6. Buffer against crude oil/gas price fluctuations

### India-United Nations Sustainable Development Framework (UNSDF)

- India and United Nations will sign India-United Nations Sustainable Development Framework (UNSDF) for 2018-2022.
- The NITI Aayog is the national counterpart for the UN in India for the operationalization of the UNSDF.
- SDF 2018-2022 outlines the work of UN agencies in India, to support the achievement of key development outcomes that are aligned to the national priorities.
- The seven priority areas outlined in the UNSDF are,
  1. Poverty and Urbanization;
  2. Health, Water, and Sanitation;
  3. Education and Employability;
  4. Nutrition and Food Security;
  5. Climate Change, Clean Energy, and Disaster Resilience;
  6. Skilling, Entrepreneurship, and Job Creation; and
  7. Gender Equality and Youth Development.

### Common Risk Mitigation Mechanism

- It is under the International Solar Alliance.
- It will be formally announced at the 24th Conference of the Parties to the United Nations Framework Convention on Climate Change (COP 24) to be held in Poland in December.
- It has been taken over by the World Bank and it has mobilised \$1 million for preparatory work.
- The objective of CRMM is de-risking and reducing the financial cost of renewable energy projects in ISA-member countries.
- It will act as a pooled insurance with limited liability.
- Banks and multi-lateral institutions can contribute to the fund for a marginal premium.

## Climate Finance Leadership Initiative

- The Climate Finance Leadership initiative support a global mobilisation of private capital in response to the challenge of climate change.
- It work to fulfill the private financing objectives included in the landmark 2015 Paris Climate Change Agreement.
- Paris agreement reaffirmed the goal of mobilizing at least \$100 billion per year by 2020 through a combination of public development finance and private foreign direct investment.
- It will draw members from top international financial firms and corporations.
- It focus on catalysing scaled-up investments in clean energy and climate resilience projects around the world, in both developed and emerging markets.
- The initiative will have a one-year term culminating in a UN Climate Summit to be held in September 2019.
- It will work closely with the government of France and will provide a first report to G7 Finance Ministers by July 2019.

## Chiller Star Labelling Programme

- A Chiller is a machine that removes heat from a liquid via a vapor-compression cycle.
- Chillers are used extensively for space conditioning of buildings and for industrial process cooling applications.
- It is energy intensive system and contribute to more than 40% of total energy consumption in commercial buildings.
- Chiller Star Labelling programme was recently launched by Bureau of Energy Efficiency (BEE).
- It envisages providing star rating to chillers in terms of its energy performance.
- Through this programme, it is estimated that more than 500 million units of electricity would be saved along with reduction of Greenhouse Gas emission (GHG) of 0.5 million-ton equivalent by 2019.

### Bureau of Energy Efficiency

- Bureau of Energy Efficiency (BEE) was set up under the provisions of Energy Conservation Act, 2001.
- Its mission is to assist in developing policies with the primary objective of reducing energy intensity of the Indian Economy.
- Energy Conservation Act provides for regulatory and promotional functions of BEE.
- BEE is responsible for
  - Create awareness and disseminate information on energy efficiency and conservation
  - Promote innovative financing of energy efficiency projects
  - Give financial assistance to institutions for promoting efficient use of energy and its conservation
  - Prepare educational curriculum on efficient use of energy and its conservation
  - Implement international co-operation programmes relating to efficient use of energy and its conservation.

## Report by Ramsar Convention

- Ramsar convention adopted in the year 1971 that provides the framework for the conservation and wise use of wetlands and their resources.
- This intergovernmental treaty came into force in 1975.
- It has been ratified by most of the world's nations, including the U.S., China and India.
- It has designated more than 2,300 sites of international importance.
- The convention has recently issued its first-ever global report on the state of World's wetlands.
- The report is titled as "Global Wetland Outlook".

- The report found that around 35% of wetlands were lost between 1970 and 2015.
- Wetlands include lakes, rivers, marshes and peatlands, as well as coastal and marine areas like lagoons, mangroves and coral reefs.
- In India, The Ministry of Environment, Forest and Climate Change is the nodal Ministry for wetlands conservation.
- Wetlands in India account for 4.7% of the total geographical area.

### **Champions of the Earth**

- It is the UN's highest environmental honor.
- It was launched in the year 2005 by UNEP.
- It recognizes exemplary individuals and organisations whose actions created positive impact on environment.
- It recognizes laureates in the following categories - Lifetime Achievement, Policy Leadership, Action and Inspiration, Entrepreneurial Vision and Science and Innovation
- In its 2018 edition, Indian Prime Minister and France President has been awarded under Policy Leadership category for their International Solar Alliance (ISA) initiative.
- Indian PM Modi has also been awarded for his pledge to eliminate single use plastic in India by 2022.
- Cochin International Airport has also been honored with the award for Entrepreneurial Vision, for its leadership in the use of sustainable energy.
- The awards will be presented during the Champions of the Earth Gala in New York City, on the sidelines of the 73rd UN General Assembly.

### **Indian Roofed Turtle**

- It is a species of turtle, protected under Schedule 1 of Wildlife Protection Act, 1972.
- It is found in India, Bangladesh, Nepal and Pakistan.
- In India, it is found in Ganges, Brahmaputra and Indus River drainages.
- It is listed on CITES Appendix I.
- It is listed as "Least Concern" in the IUCN list of threatened species.
- The protected areas in Jalpaiguri is known for protecting this species.
- In addition to it, it is also found in Lota devi temple located on the basin of River Karala in Jalpaiguri.
- Society for Protecting Ophiofauna & Animal Rights (SPOAR), an NGO and the Wildlife Trust of India (WTI) has led an initiative to save the species from severe pollution in the river.
- They have installed the Kurma avatar (form of turtle) of Lord Vishnu on the outskirts of river to reduce pollution and to encompass the religious belief.

### **Bonnethead shark**

- According to researchers from the University of California, Bonnethead Shark is the first known omnivore shark.
- One possible reason for the shark's omnivorous lifestyle is potentially avoiding conflict with other species such as bull sharks or nurse sharks for food.

### **Nahargarh Biological Park**

- Nahargarh Biological Park is part of Nahargarh sanctuary in Jaipur.
- It is located in the foot hills of Aravalli.
- The park is known for breeding centre of lions.
- State's first lion safari was recently inaugurated in this park.

### **Flightless Bird Research Centre**

- The Kerala Veterinary and Animal Sciences University (KVASU) has set up a flightless bird research centre.

- The centre has been setup on the university campus at Pookode in Wayanad district.
- The centre envisages to carry out research on adaptation and comparative physiological studies of flightless birds such as the ostrich, rhea, and emu, and artificial incubation of their eggs.

### Hornbill Watch initiative

- It is an interactive web interface that allows a person to report on hornbills anywhere in India.
- It was launched by Scientists from Nature Conservation Foundation and Conservation India.
- Hornbills play essential roles in forest ecosystems as dispersers of seeds of forest plants.
- There are nine hornbill species in India out of which four are found in the Western Ghats. They are,
  1. Indian Grey Hornbill (endemic to India),
  2. the Malabar Grey Hornbill (endemic to the Western Ghats),
  3. Malabar Pied Hornbill (endemic to India and Sri Lanka) and
  4. Widely distributed but endangered Great Hornbill.
- India also has one species that has one of the smallest ranges of any hornbill, **the Narcondam Hornbill**, found only on the island of Narcondam.
- The hornbills were reported from 70 protected areas in the country.

### Integrated Development of Wildlife Habitats (IDWH)

- The Cabinet Committee on Economic Affairs has recently approved continuation of the IDWH beyond the 12th Plan period from 2017-18 to 2019-20.
- It is a centrally sponsored umbrella scheme consists of Project Tiger, Development of Wildlife Habitats and Project Elephant.
- The schemes would result in overall strengthening/ consolidation of tiger, elephant and wildlife conservation in the country.
- Besides, it would also address the Man-Animal conflict effectively and benefit the communities relocating from core protected areas.
- The implementation of the schemes would be done through the respective States in designated Tiger Reserves, Protected Areas and Elephant Reserves.

## SCIENCE AND TECHNOLOGY

### SPACE

#### PSLV C-42

- Polar Satellite Launch Vehicle-C42 of the ISRO has recently launched two earth observation satellites of the United Kingdom.
- The two satellites are NovaSAR and S1-4, weighing 450kg each.
- They were launched in to 'Sun Synchronous Orbit', which is usually used for imaging, reconnaissance and weather forecasts.
- NovaSAR is a S-band synthetic Aperture radar satellite, intended for forest mapping, land use, and ice cover monitoring as well as flood and disaster monitoring.
- S1-4 is a high-resolution optical earth observation satellite that will be used for surveying resources, environment monitoring, urban management, and disaster monitoring
- In PSLV C-42, the core alone version without six strap-on motors were used.
- It is the 44th launch of polar satellite launch vehicle (PSLV).

### Space Technology Incubation Centre

- ISRO has recently launched a space technology incubation centre in Tripura capital Agartala.
- It is the first of six such centres planned nationally to build capacity in new locations.



- The Centre was launched at the first edition of 'Spacetrionics' organised by the India Electronics and Semiconductor Association (IESA).
- The centre will incubate start-ups which would build applications, offer services and products which can be used internally and exploit global opportunities.

### New Telescope in India

- Tata Institute of Fundamental Research (TIFR) and Bhabha Atomic Research Centre (BARC) are developing a new gamma ray telescope in Ladakh.
- It will be the second such telescope to be available globally.
- The first one is in La Palma in Canary Islands set up jointly by Switzerland and Germany in 2011.
- It will be located near the High Altitude Gamma Ray (HAGAR) array at Hanle in Ladakh.
- HAGAR houses the Indian Astronomical Observatory operated by Indian Institute of Astrophysics, Bengaluru.
- It will work in tandem with MACE (Major Atmospheric Cerenkov Experiment), a gamma ray imaging telescope which is also under installation at Hanle.
- It will be able to operate in bright environment like twilight hours and moon-lit nights, unlike traditional ones that operate only in dark hours of the night.
- It will be used to observe and monitor spectacular celestial events like explosion of stars, falling of matter into black holes and collision of extraterrestrial objects better.

### Definition of a Planet

- There is a recent debate among the astronomical community to reclassify Pluto as a planet.
- International Astronomical Union (IAU), a group of experts, is the authorised body to define the criteria for any object to be designated as a planet.
- In 2006, IAU defines three criteria to classify any object as a planet
  - i. It needs to be in orbit around any fully-fledged star.
  - ii. It needs to have enough gravity to pull itself into a spherical shape.
  - iii. It has cleared the neighbourhood around its orbit
- This last criterion is the point at which planets and dwarf planets differ. Dwarf planets have other objects in its orbit around its star.
- In accordance with this, IAU decided to demote Pluto as a dwarf planet.
- IAU recognizes five named dwarf planets - Ceres, Pluto, Eris, Haumea, and Makemake.
- Except Ceres, other dwarf planets are also known as Plutoids.

### Hope Mission

- It is a Space mission by UAE which planned to send an unmanned probe to orbit Mars by 2021.
- It has become the first Arab Country to do so.
- The hope spacecraft will be a compact, hexagonal section spacecraft weighing approx. 1500 kg.
- The launching of the spacecraft is going to be coincided with the 50<sup>th</sup> anniversary of the founding of the UAE.

### FOXSI Mission

- Focusing Optics X-ray Solar Imager (FOXSI) is a sounding rocket mission by NASA.
- It aims at directly focus at Sun and search for nanoflares using its X-ray vision.
- The mission's third flight is going to be launched soon.

#### Nanoflares

- Nanoflares are miniature explosions invisible to the naked eye.
- They are born when magnetic field lines in the Sun's atmosphere tangle up and stretch until they break like a rubber band.
- Consequence - The energy they release accelerates particles to near light speed and heats the solar atmosphere to its searing million-degree Fahrenheit temperature.



- FOXSI rockets travel above the Earth's atmosphere for a peek at space before falling back to the ground.
- It is the first instrument built specially to image high-energy X-rays from the Sun by directly focusing them.

### **JUNO**

- NASA's Juno spacecraft has beamed back an image of a long, brown oval known as a "brown barge".
- Brown barge is an elusive atmospheric feature in Jupiter's South Equatorial Belt.
- The objective of Juno mission is to measure Jupiter's composition, gravity field, magnetic field, and polar magnetosphere.
- It completed a close flyby of Jupiter and its Great Red Spot.
- Jupiter's Great Spot is a 16,000-km wide storm monitored since 1830 and possibly existing for more than 350 years.
- Recently, the spacecraft reached "Perijove", the point at which an orbit comes closest to Jupiter's centre.

### **Monster Galaxy**

- Astronomers have captured the clearest image of Monster galaxy using Atacama Large Millimeter/submillimeter Array (ALMA).
- The monster galaxy called as COSMOS-AzTEC-1 is located 12.4 billion light-years away.
- Monster galaxies, or starburst galaxies, form stars at a startling pace, 1000 times higher than the star formation rate in Milky Way Galaxy.
- It has molecular clouds that are highly unstable and leads to runaway star formation.
- They are thought to be the ancestors of the huge elliptical galaxies in Universe.
- Therefore, these findings pave the way to understand the formation and evolution of such galaxies.

### **HY-1C satellite**

- It is a marine satellite launched by China recently.
- It was launched by Long March-2C rocket from the Taiyuan Satellite Launch Centre in Shanxi province.
- It is a part of series of satellites.
- HY-1A was launched in 2002 and HY-1B satellite was launched in 2007.
- It was launched to help improve understanding of maritime waters and climate change.
- HY-1C can detect chlorophyll and suspended sediment concentrations and dissolved organic matter, which can affect ocean colour, as well as temperatures on the sea surface.
- The data will help survey fishery and aquaculture resources and environments, offering a scientific basis for reasonable exploitation and utilization of marine resources.
- Scientists will also use the data to study global environmental changes, the role of the oceans in the global carbon cycle and the El Nino phenomenon.

### **Kepler Telescope**

- The Kepler telescope was originally launched in 2009 as part of NASA's Discovery Program.
- It is an observatory in space dedicated to finding planets outside our solar system.
- It targets particularly alien planets that are around the same size as Earth in the "habitable" regions of their parent star.
- Kepler was the first telescope to find a planet (Kepler-69c) approximately the size of Earth in the habitable region of a star.
- It examined the TRAPPIST-1 system which likely has multiple Earth-sized planets in it between December 2016 and March 2017.
- After the Kepler space telescope, TESS is the second spacecraft which will search for planets outside our solar system, including those that could support life.

### **ICESat-2**

- The Ice, Cloud and Land Elevation Satellite-2 (ICESat-2) satellite has been launched recently by NASA.
- It is a laser-armed satellite which measures changes in the heights of Earth's polar ice.



- It will measure the average annual elevation change of land ice covering Greenland and Antarctica to within the width of a pencil, capturing 60,000 measurements per second.
- Its Advanced Topographic Laser Altimeter System (ATLAS) measures height by timing how long it takes individual light photons to travel from the spacecraft to Earth and back.
- NASA started the ICESAT mission in the year 2003 and continued in 2009 with NASA's Operation IceBridge.
- ICESat-2 will also measure the height of ocean and land surfaces, including forests.

### **NASA Balloon Mission**

- NASA has launched a balloon mission to improve weather forecasting.
- The NASA long-duration balloon mission will observe clouds over the course of five days in the mesosphere.
- The images of a thin group of seasonal electric blue clouds on the cusp of our atmosphere captured by a new NASA balloon mission may lead to improved weather forecasting.
- Data from these clouds, known as noctilucent clouds or polar mesospheric clouds (PMCs), may help scientists better understand turbulence in the atmosphere, as well as in oceans, lakes and other planetary atmospheres.

### **MINERVA-II1**

- It is the world's first man-made object to explore movement on an asteroid surface.
- It is developed by Japanese Space Agency.
- Micro Nano Experimental Robot Vehicle for Asteroid (MINERVA) is the second generation rover deployed by Hayabusa2 spacecraft.
- It recently landed on Asteroid Ryugu and the world's first rover to land on the surface of an Asteroid.
- This is also the first time for autonomous movement and picture capture on an asteroid surface.
- It will collect a sample of the primitive world during its stay at Ryugu, to bring to Earth for laboratory analysis.

### **Young Asteroids**

- Brazilian scientists have recently identified four young asteroids which are less than 7 million years old.
- It orbits between Mars and Jupiter as part of a grouping known as the Main Asteroid Belt.
- The Main belt is an extraordinary niche of asteroids, with more than 700 known objects.
- The key parameters used for identification are longitudes of pericentre and ascending node.
- For a planet, comet or asteroid moving around the Sun in an elliptical orbit, the pericentre is the point at which it comes closest to the Sun.
- The ascending node is the point at which the orbit crosses from the southern side of the ecliptic plane, to the northern side.

### **DEFENCE**

#### **Akash Missile**

- Akash is an indigenously developed medium-range, surface-to-air missile defence system.
- DRDO developed Akash as part of the Integrated Guided Missile Development Programme initiated in 1984.
- It can target aircraft up to 30 km away, at altitudes up to 18,000 m.
- It consists of Rohini radar that detects incoming aircraft with a range of 120 km.
- It can intercept fighter jets, cruise missiles as well as ballistic missiles.
- It soon will get an upgraded variant and Defence Acquisition Council (DAC) gave its procedural approval to the variant.
- Recently, it was test fired with an indigenous radio frequency seeker.
- This is the first surface-to-air missile with indigenous seeker that has been test fired.
- With this success, India has achieved the capability of making any type of surface-to-air missile.



### **Astra Missile**

- Astra is the indigenously developed Beyond Visual Range Air-to-Air Missile (BVRAAM).
- It was successfully test fired from Su-30 aircraft.
- Astra is the best in class weapon system.
- It comprises a launcher and a missile and it is designed as a BVR missile with a long range of 110 km and short range of 20 km.

### **Prahar Missile**

- Prahar is the surface-to-surface tactical missile developed by Defence Research and Development Organisation (DRDO).
- It is a contemporary weapon system capable of carrying multiple types of warheads and neutralizing a wide variety of targets.

### **Mid-Air Refuelling**

- Tejas is an indigenously developed light combat aircraft.
- It is a single-seat, single-jet engine, multirole light fighter.
- It is the smallest and lightest multi-role supersonic fighter aircraft in its class.
- It can fire Air to Air Missiles, carry bombs and Precision Guided ammunition.
- The Indian Air Force has successfully carried out the first ever mid-air refuelling of Tejas.
- A Russian-built IL-78 MKI tanker transferred fuel to a Tejas MK I aircraft.
- It is considered as a major milestone in its development cycle.
- The ability to carry out air-to-air refuelling is one of the critical requirements for Tejas to achieve final operational clearance.
- Earlier, Tejas has successfully fired an air-to-air beyond visual (BVR) range missile.

### **Interceptor Missile Test**

- India's Ballistic Missile Defence (BMD) system is concentrated on tracking and destroying incoming hostile missiles both inside (endo) and outside (exo) the earth's atmosphere.
- The BMD program includes a two-tiered system consisting of two interceptor missiles, namely Prithvi Air Defence (PAD)/ Pradyumna and Advanced Air Defence (AAD)/Ashwin Ballistic Missile Interceptor.
- India successfully conducted an interceptor missile (Prithvi Defence Vehicle) test off the Abdul Kalam Island in Odisha Coast.
- The Prithvi Defence Vehicle (PDV) is being developed by DRDO which is set to replace the existing PAD.
- PDV mission is for engaging the targets in the exo-atmosphere region at an altitude above 50 km of the earth's atmosphere.
- PDV is guided by high-accuracy Inertial Navigation System (INS).
- AAD mission is for engaging the targets in the endo-atmosphere at a lower altitude of 15-30 km.

### **Man-Portable Anti-Tank Guided Missile**

- DRDO has recently successfully man-portable anti-tank guided missile from Ahmednagar range.
- It is the third - generation Anti-tank Missile which will be used by Indian Army.
- It has been developed by DRDO with private sector partnership.
- It is low weight missile with a range of 2500 metres.

### **ICGS Vijaya**

- Ministry of Defence has initiated a project for building 7 offshore patrol vessels with private sector partnership.
- In 2017, the first in the series Indian Coast Guard (ICG) Ship Vikram was commissioned.
- ICGS Vijaya, the second in the series of 98-metre offshore patrol vessels was commissioned recently.
- It is fitted with advanced technology, navigation and communication equipment, sensor and machinery
- The ship will be based at Paradip.

- It will be deployed extensively for Exclusive Economic Zone (EZ) surveillance and other duties
- It is designed to carry one twin-engine helicopter and four high speed boats.

#### Exercise Vostok

- Vostok 2018 is Russia's military exercise spanning from the Ural Mountains to the Pacific coast.
- It is the biggest military maneuvers since the height of the cold war.
- Zapad 81 is the mammoth manoeuvres carried out in Eastern Europe by the former Soviet Union in 1981.
- Chinese and Mongolian forces will also participate.
- It will involve 300,000 troops, engaging in tri-service mock-operations.
- These exercises are taking place amid Washington's growing friction with Russia and China.

#### KAZIND

- Kazind is an Indo-Kazakhstan Joint Army Exercise.
- The third edition of this exercise will be conducted in Otar region, Kazakhstan. 2<sup>nd</sup> Edition (2017) was organised in India.
- Its aim is to build and promote bilateral Army relations and exchange skills and experiences.
- Prabal Dostyk is another joint military exercise between India and Kazakhstan.

#### Nomadic Elephant

- It is an annual **Indo-Mongolia** joint military exercise.
- The 2018 edition of the exercise will be held in Ulaanbaatar, Mongolia.
- It aims to improve the tactical and technical skills in counter insurgency and counter terrorist operations in rural and urban scenario.

#### MILEX – 2018

- MILEX is a military field exercise of countries of BIMSTEC (Bay of Bengal Initiative for Multi Sectoral Technological and Economic Cooperation).
- Its aim is to practice the BIMSTEC nations in planning and conduct of counter terrorist operations.
- The exercise focusses on counter-terrorism operation in semi-urban setting.
- The countries of BIMSTEC organisation are Bangladesh, India, Myanmar, Sri Lanka, Thailand, Bhutan and Nepal.
- The headquarters is in Dhaka, Bangladesh.

#### Exercise Aviaindra-18

- It is an Air Force level exercise between India and Russian Federation.
- It is a bi-annual exercise.
- First Aviaindra was conducted in the year 2014.
- Exercise Aviaindra 2018 is being conducted at Lipetsk, Russia and Jodhpur, India.
- The exercise is focused towards anti-terrorist operations in a bi-lateral scenario.

#### Rapid Trident

- It is a joint-annual military exercise between Ukraine and NATO.
- It will be held in western Ukraine region and it is seen as a response to Russia's biggest military exercise Vostok.
- Ukraine's tension with Russia remain high over the Kremlin-backed insurgency in its eastern region.
- NATO is an Alliance that consists of 28 independent member countries across North America and Europe, thenewest of which, Albania and Croatia.
- It is an intergovernmental political and military alliance, committed to the Principle of collective defence.
- NATO's headquarters is in Brussels, Belgium.

#### OTHERS

#### Nuclear Plant in M.P



- Activist and villagers in Madhya Pradesh raised their concerns over the proposed nuclear plant in Chutka.
- In 2009, Nuclear Power Corporation of India Ltd. (NPCIL) has decided to set up the atomic station in Mandla district of Madhya Pradesh to generate 1,400 MW power.
- At present, there are 9 nuclear power reactors at various stages of construction.
- Kakrapar (2 reactors) in Gujarat, Rawatbhata (2 reactors) in Rajasthan, Kudankulam (2 reactors) and Kalpakkam (1 reactor) in Tamil Nadu and Gorakhpur (1 reactor) in Haryana.
- There are few nuclear power reactors accorded administrative approval and financial sanction. Each site has 2 reactors.
- Gorakhpur in Haryana, Mahi-Banswara in Rajasthan, Kaiga in Karnataka, Chutka in Madhya Pradesh, Kudankulam in Tamil Nadu.

### **Kakrapur Atomic Power Station**

- Two units of Pressurised heavy water reactors in Kakrapur Atomic Power station recently attained 'criticality'.
- The term 'criticality' denotes initiation of self-sustaining nuclear fission chain reaction in the reactor.
- Two years before, the units were shut due to leak of heavy water coolant, leaving both units non-functional.

### **Eyerovtuna**

- Eyerovtuna is India's first commercial remotely operated vehicle (ROV) underwater robotic drone.
- The robotic drone can be navigated up to a depth of 50 meters to take real-time HD video images.
- It will be helpful to examine ship hulls or undersea cables or bridge moorings, eliminating the need for costlier and riskier manual inspection by divers.
- It was tested for the first time in India's first solar ferry in Kerala's Vaikom.
- It can be put to uses ranging from inspections of ship hulls, ports, dams and nuclear power plants, to search and rescue, naval mine detection and ocean studies.
- It will be used by the laboratory of DRDO.

### **Hydrogen Powered Train**

- Germany has rolled out the world's first hydrogen-powered train.
- Hydrogen trains are equipped with fuel cells that produce electricity through a combination of hydrogen and oxygen, a process that leaves steam and water as the only emissions.
- Excess energy is stored in ion lithium batteries on board the train.
- Thus, the technology is eco-friendly when compared to polluting diesel trains.

### **e-Cigarettes**

- The Central government has directed all states and Union Territories to not allow the manufacture, sale and advertisement of e-cigarettes and other Electronic Nicotine Delivery Systems (ENDS).
- Electronic cigarettes or e-cigarettes, are devices that do not burn or use tobacco leaves but instead vaporise a solution, which a user then inhales.
- The main constituents of the solution, in addition to nicotine, are propylene glycol (with or without glycerol and flavouring agents).
- ENDS are devices that heat a solution to create an aerosol, which also frequently contains flavours, usually dissolved into propylene glycol and glycerin.
- A number of metals, including lead, chromium and nickel, and chemicals like formaldehyde have been found in aerosols of some ENDS.
- ENDS are not approved as NRTs (nicotine-replacement therapies) under the Drugs and Cosmetics Act and rules made thereunder.
- According to Global Tobacco Epidemic 2017 report by the WHO, the governments of 30 countries like Mauritius, Australia, Singapore etc have already banned ENDS.

### **Leptospirosis**

- Health Department has recently given the warning about leptospirosis disease in the post-flood period.
- Leptospirosis is a bacterial infection in rodents and other wild and domesticated species.
- It is a zoonotic disease (i.e) spread from animals to humans caused by bacteria of the genus *Leptospira*.





- It is transmitted to humans by exposure through water contaminated by urine from infected animals.
- The infection in man is contracted through skin abrasions and the mucosa of the nose, mouth and eyes.
- Human-to-human transmission is rare.
- In most of the cases, leptospirosis only causes mild flu-like symptoms, such as headache, chills and muscle pain.
- However, in some cases the infection is more severe and can cause life-threatening problems, including organ failure and internal bleeding.
- Severe form of leptospirosis is known as Weil's disease
- It is an emerging tropical infectious disease.
- Without treatment, Leptospirosis can lead to kidney damage, meningitis, liver failure, respiratory distress, and even death.

### **Bedaquiline**

- WHO has recently made an important change in the treatment of patients with Multi-Drug Resistant TB (MDR-TB).
- MDR-TB is resistant to at least two of the first-line anti-TB drugs.
- According to the WHO guidelines, all injectables are to be replaced with a fully oral regimen with Bedaquiline to treat MDR-TB patients.
- Bedaquiline is the powerful anti-TB drug used to treat MDR-TB.
- The success rate of injectable treatment is less. It is because of patients discontinuing the treatment in midway due to adverse side effects.
- South Africa was the first country to scale up access to bedaquiline. It would replace the injectables for treating all MDR-TB patients.

### **oesophageal organoids**

- Scientists have successfully grown world's first oesophageal organoids using stem cells.
- Oesophageal organoids are miniature, functional versions of the human food pipe.
- The oesophagus is a muscular tube that actively passes food from the mouth to the stomach.
- The organ can be affected by congenital diseases called oesophageal atresia - a narrowing or malformation of the oesophagus caused by genetic mutations.
- The production of organoids using stem cells paves new ways to study and test drugs against gut disorders.
- It was grown entirely from pluripotent stem cells (PSCs), which can form any tissue type in the body.

### **INDEX AND REPORT**

#### **Ease of Living Index - State Wise Ranking**

- It is an initiative launched by the Ministry of Housing and Urban Affairs.
- It aims to help the cities assess their liveability vis-à-vis national and global benchmarks.
- Ministry has recently released State wise ranking based on this index.
- Andhra Pradesh topped the charts followed by Odisha and Madhya Pradesh.
- Ministry has earlier revealed the ranking of cities based on four pillars namely Institutional, Social, Economic and Physical.
- Three cities in Maharashtra - Pune, Navi Mumbai and Greater Mumbai topped the first Ease of Living Index.
- The national capital, New Delhi, is ranked 65 among 111 cities, while Chennai is in 14th place. Kolkata did not participate in the survey.

#### **Financial Inclusion Index**

- Department of Financial Services under Ministry of Finance has launched Financial Inclusion Index (FDI).
- The index has taken into account three factors. They are,

1. Access to financial services
  2. Usage of financial services and
  3. Quality of financial services.
- The index will be a measure of access and usage of various financial products and services.
  - The services includes savings, remittances, credit, insurance and pension products.
  - It enables fulfilment of G20 Financial Inclusion Indicators requirements.

### Human Capital Score

- A recent study that ranks countries for their levels of spending on education and health care has been published in Lancet.
- The study was conducted by the Institute for Health Metrics and Evaluation (IHME) at the request of the World Bank.
- It is the first ever scientific study ranking countries for their levels of human capital.
- Finland topped the score and turkey showed the most dramatic increase in human capital between 1990 and 2016.
- India ranks 158th in the world for its investments in education and health care. It was ranked 162 in 1990.
- India is placed behind Sudan (ranked 157th) and ahead of Namibia (ranked 159th) in the list.
- The U.S. is ranked 27th, while China is at 44th and Pakistan at 164th.
- Countries in the South Asian region that have fared better than India in terms of human capital include Sri Lanka (102), Maldives (116), Bhutan (133), Nepal (156).

### Human Development Ranking

- Human Development Index (HDI) is a tool to measure country's overall achievement social and economic dimensions.
- It considers 4 indicators –
  1. life expectancy for health,
  2. expected years of schooling,
  3. mean of years of schooling for education and
  4. Gross National Income per capita for standard of living.
- It is calculated by United Nation Development Programme (UNDP).
- In the latest ranking, India ranked 130 among 189 countries.
- The value of India's HDI is 0.640, which denotes that India is in the medium human development category.
- In 2016, India's HDI value of 0.624 put it at 131 rank.
- Between 1990 and 2017, India's HDI value increased from 0.427 to 0.640, an increase of nearly 50 per cent.
- Bangladesh and Pakistan, countries with similar population size ranked 136 and 150 respectively.
- Norway, Switzerland, Australia, Ireland and Germany lead the ranking.
- Niger, the Central African Republic, South Sudan, Chad and Burundi have the lowest scores.