BYJU'S The Learning App | IAS

OCTOBER - 2018

UPSC MONTHLY CURRENT AFFAIRS

#MeToo movement

A movement against sexual harassment and sexual assault.

Infrastructure Leasing and Financial Services (IL&FS) Crisis

Liquidity and default on Interest Payment

S-400 Missile System

A game changer deal

Prison Reforms

Time to Introspect

Azad Hind Government 75th Anniversary

Subhash Chandra Bose's Way of fight for Freedom

RESULTS

Incredible results in IAS 2013

5 Ranks in Top 50

62 Ranks Ranks in the final list

Rank 9
Divyanshu Jha

Rank 12
Neha Jain

Rank 23
Prabhav joshi

Rank 40
Gaurang Rathi

Rank 46
Udita Singh

We broke our past record in IAS 2014

6 Ranks in Top 50

12 Ranks in Top 100

83 Ranks Overall Selections

Rank 4
Vandana Rao

Rank 5
Suharsha Bhagat

Rank 16
Ananya Das

Rank 23
Anil Dhameliya

Rank 28
Kushaal Yadav

Rank 39
Vivekanand T.S

We did it again in IAS 2015

5 Ranks in Top 50

14 Ranks in Top 100

162 Ranks In The Final List

Rank 20
Vipin Garg

Rank 24
Khumanthem
Diana Devi

Rank 25
Chandra
Mohan Garg

Rank 27
Pulkit Garg

Rank 47
Anshul
Agarwal

And we've done it yet again in IAS 2016

8 Ranks in Top 50

18 Ranks in Top 100

215 Ranks In The Final List

Rank 2
Anmol Sher
Singh Bedi

Rank 5
Abhilash
Mishra

Rank 12
Tejaswi
Rana

Rank 30
Prabhash
Kumar

Rank 32
Avdhesh
Meena

And we've done it yet again in IAS 2017

5 Ranks in Top 10 | **34 Ranks** in Top 100 | **236 Ranks** In The Final List

Rank 3
Sachin Gupta

Rank 6
Koya sree Harsha

Rank 8
Anubhav Singh

Rank 9
Saumya Sharma

Rank 10
Abhishek Surana

Ashima Mittal
Rank-12

Abhijeet Sinha
Rank-19

Varjeet Walia
Rank-21

Keerthi Vasan V
Rank-29

Utsav Gautam
Rank-33

Gaurav Kumar
Rank-34

Abhilash Baranwal
Rank-44

Vikramaditya Singh Malik
Rank-48

Vishal Mishra
Rank-49

Sambit Mishra
Rank-51

Bodke Digvijay Govind
Rank-54

Akshat Kaushal
Rank-55

Jagdish Chelani
Rank-57

Hirani Adityavikram
Rank-60

Swapneel Paul
Rank-64

Jyoti Sharma
Rank-75

Pushp Lata
Rank-80

Amol Srivastava
Rank-83

Prateek Jain
Rank-86

Amilineni Bhargav Teja
Rank-88

Sangh Priy
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Rahul Shinde
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Kathawate Mayur Ashok
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Vaibhava Srivastava
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Videh Khare
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Plash Bansal
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Shilpa Singh
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1. POLITY

Assam's Barak Valley seeks Statehood

Context

- A students' Organization has advocated statehood for southern Assam's Barak Valley because of a "sharp division" between linguistic groups created by the National Register of Citizens (NRC) and the Citizenship (Amendment) Bill, 2016.
- The call of separate region is due to perpetuation of violence after the Citizenship Bill and NRC by few Assam Groups in this region dominated by Bengalis.

Barak Valley

- It comprises three districts – Cachar, Hailakandi and Karimganj – is Bengali-dominated.

Ethics panel debates checks and balances

Context

- In a meeting of the Rajya Sabha's Parliamentary Committee on Ethics (PCE), members discussed amending Rule 293 of the Rajya Sabha's procedures, which makes the "declaration of interest" by members a public document.

Details

- The section says that a "register of member's interest" should be maintained.
- This interest is explained as "personal or specific pecuniary interest (direct or indirect) in a matter being considered by the Council or a Committee".

- The rules say that a member should not participate in any debate if there is direct conflict of interest, without first declaring it, and that in case of a vote on any issue in the House, the vote of such a member could be challenged.

Discussions that took place

- The members contended said, that they while filing their nominations; declared their assets and liabilities. They had to update any changes in their assets and liabilities every year, too.
- Apart from allowing this information to be in the public domain, it could also be accessed by anyone through the Right to Information Act, they said.
- Some members felt that the availability of information should be made conditional and the present rule should be strengthened.

In reference to RTI

- This Section of Rule 293 is actually contradictory to Right to Information Act because, under this rule, the information can be divulged only through certain conditions — for example, the applicant has to satisfy what the purpose is and that it would not be misused. But under RTI, you can't have any conditions.

Fali S Nariman Suggestion on bringing change in Law profession

- The quality of legal education is more important than the numbers of lawyers
- One most serious aspect facing the legal profession is that the legal education system appears to have lost its ethical content.

He suggests that the national bar associations adopt a three point programme:

- First, the urgent need to re-discover and reaffirm the profession's 'moral foundation' (that will help refurbish its image).
- Second, to inculcate ethical principles in the minds of young lawyers (and do remember people learn best by example, not by precept).
- Third, to promote morally responsible and responsive lawyering, or as they say, 'Make lawyers good'.

'Re-ethicalization' of lawyering

- The basis for this movement is a belief that the legal profession is in the midst of a crisis of identity.
- It stands 'exiled from its old certainties' and from its central position as guardian of society.
- Lawyers must not arrogate to themselves a position of dominance in the society they serve, but 'their position as servants of society … is indispensable'.

Voter Verifiable Paper Audit Trail (VVPAT)

- It allows voters to verify if their vote has gone to the intended candidate.
- The system is a printer based accessory used in the setup of Electronic Voting Machine (EVM).
- The VVPAT system prints the voter's franchise on a thermal paper ballot slip for voter verification when EVMs are used in elections as well as an audit trail.
- The printed ballot slip is visible to the voter for a period of 7 seconds through a screen window available on VVPAT.
- The ballot slip then gets cut automatically and falls into the Ballot Slip compartment.

It consists of

VVPAT: Myths and Realities

Myth 1 : **VVPAT slips are collected by the voter.**
Reality : Incorrect. VVPAT slips cannot be touched by the voter. However they are visible to voter for seven seconds behind a transparent screen, at the end of which they fall into the sealed compartment in the VVPAT.

Myth 2 : **VVPAT print will not last more than 15-30 days.**
Reality : Incorrect. The print on the thermal paper used lasts for more than five years.

Myth 3 : **VVPAT takes photo of the voter, thereby compromising secrecy of votes.**
Reality : Incorrect. VVPAT has no camera and it can't take any photograph of the voter.

SC dismisses plea to lower marriageable age of men

Context

- The Supreme Court dismissed a PIL petition seeking a judicial order to lower the legal marriageable age of men from 21 to 18 years.

Background

- The petition challenged the provisions of the Child Marriage Restraint Act, the Special Marriage Act and the Hindu Marriage Act, which deal with the minimum marriageable age for men and alleged that they were violative of various fundamental rights guaranteed under the Constitution.
- It contended that the provisions were "unreasonable, unjust and improper" and also violative of Article 15 which prohibits discrimination on grounds of religion, race, caste, sex or place of birth.
- The petitioner asked if men could join the Army or vote at the age of 18, then why not marry.

What did SC say?

- A Bench led by Chief Justice of India Ranjan Gogoi imposed ₹ 25,000 costs on petitioner-lawyer Asok Pande, and said there was no public interest in his petition.
- The Bench said in such cases, the affected persons should come to court.

Draconian move (Section 124)

Larger Background:

A Note on Section 124 of the Indian Penal Code:

According to Section 124 of the Indian Penal Code, "whoever, with the intention of inducing or compelling the President of India, or Governor of any State, to exercise or refrain from exercising in any manner any of the lawful powers of such President or Governor, assaults or wrongfully restrains, or attempts wrongfully to restrain, or overawes, by means of criminal force or the show of criminal force, or attempts so to overawe, such President or Governor, shall be punished with imprisonment of either description for a term which may extend to seven years, and shall also be liable to fine."

- Further, it is important to note that this is a Non-Bailable, Cognizable offence and triable by Court of Session
- This offence is NOT compoundable.

A Note on Section 124A of Indian Penal Code

- Whoever, by words, either spoken or written, or by signs, or by visible representation, or otherwise, brings or attempts to bring into hatred or contempt, or excites or attempts to excite disaffection towards, the Government established by law in India, shall be punished by imprisonment or fine.

Certain Arguments in favour of the Sedition Law

1. In the year 1962, the Honourable Supreme Court of India in the Kedar Nath Singh vs State of Bihar case upheld Section 124A. The Court held that it struck a "correct balance" between fundamental rights and the need for public order.
2. Further, the court has reduced the scope of Sedition law to only those cases where there is incitement to imminent violence towards overthrow of the state.

Arguments against section 124A

1. Arguments against section 124A suggest that it stifles the democratic right of people to criticize the government.
2. In the Menaka Gandhi case, the Honourable Supreme Court of India had held that freedom of speech and expression is not confined to geographical limitations and that it carries with it the right of a citizen to gather information and to exchange thought with others not only in India but abroad too.
3. Thus, stemming from this, criticism against the government policies and decisions within a reasonable limit that does not incite people to rebel is consistent with freedom of speech and expression.

The News:

- Recently, R.R. Gopal, Editor of the Tamil magazine Nakkheeran was arrested.
- The Tamil Nadu Governor's office had complained to the police, seeking to book Mr. Gopal under Section 124 of the IPC. The Governor's office had cited some articles published in the magazine.
- It is important to note that this section, was seldom used even during colonial times. It applies to assaulting high constitutional functionaries such as the President and the Governor with "an intent to compel or restrain the use of any lawful power".

- The important point to note here is that whether the articles in question were in bad taste or not is the subject for a separate debate. But however offensive or derogatory the articles may have been, they did not attract Section 124.
- The present Governor of Tamil Nadu, Banwarilal Purohit had threatened a few months ago to use Section 124, when the DMK staged black flag demonstrations at sites where the Governor held meetings with district-level officials.

Critical Analysis:

- Going into specifics, it is doubtful whether a black flag demonstration can be construed as an attempt to "overawe" the Governor in a manner that restrains his office from exercising power.
- Further, being "overawed", at the very least, would suggest the commission of an offence that poses a real danger to the exercise of authority. To extend the meaning of "overawe" to a work of journalism raises many questions.
- What further raises question marks is the claim in the police complaint prepared by the Deputy Secretary to the Governor that the offending articles express an "intention of inducing or compelling the Governor… to refrain from exercising his lawful powers".

Concluding Remarks:

- The articles published in the Tamil magazine had linked Mr. Purohit's name to the controversy surrounding assistant professor Nirmala Devi, who is in jail for allegedly trying to lure students into sex work.
- In conclusion, it is believed that if Mr. Purohit believed they were unfounded and damaged his reputation, there were other forms of legal redress available to him.
- By seeking registration of a Section 124 case against the magazine's Editor, journalists and employees, the Governor's office has only turned the spotlight on itself unnecessarily.
- It is believed that he should withdraw the complaint now as it is unlikely that the Tamil Nadu police will take such a decision on its own

Section 151A of the Representation of the People Act 1951

- Section 151A of the Representation of the People Act, 1951 mandates the Election Commission to fill the casual vacancies in the Houses of Parliament and State Legislatures through bye elections within six months from the date of occurrence of the vacancy, provided that the remainder of the term of a member in relation to a vacancy is one year or more.

Issue in News:

- The term of sixteenth Lok Sabha is upto 3rdJune, 2019. As the vacancies from Karnataka have occurred more than one year before the expiration of the term of House, bye elections are required to be held under Section 151A of R. P. Act 1951 to fill these vacancies within six months from the date of occurrence of vacancies that is 18th& 21st May, 2018.
- Whereas, in case of vacancies from Andhra Pradesh, there is no need to hold bye elections as the remaining term of the Lok Sabha is less than one year from the date of occurrence of vacancies that is 20thJune, 2018.

Background:

- Section 151A of the Representation of the People Act, 1951 states:

151A. a bye-election for filling any vacancy shall be held within a period of six months from the date of the occurrence of the vacancy: Provided that nothing contained in this section shall apply if—

a) The remainder of the term of a member in relation to a vacancy is less than one year; or
b) The Election Commission in consultation with the Central Government certifies that it is difficult to hold the bye-election within the said period.

Victim of a crime should have a say in punishment: Supreme Court

Context

- A Bench of Justices Madan B. Lokur. S. Abdul Nazeer and Deepak Gupta held that punishment should be "meaningful" to the victim.
- For this, "it is necessary to seriously consider giving a hearing to the victim while awarding the sentence to a convict", the Bench said.

Criminal Wrong

- It is a crime which is considered a wrong against society and the punishment is a deterrent for prospective offenders.
- In criminal prosecution, the State takes the front seat while the victim becomes a prosecution witness.

SC comment

- Supreme Court has made it clear that the victim or her family — who has suffered the crime — should have an equal say in the punishment of the perpetrator.
- A victim impact statement or a victim impact assessment must be given due recognition so that an appropriate punishment is awarded to the convict

Disqualification of 18 AIADMK MLAs upheld by Madras High Court

Context

- The Madras High Court upheld the disqualification of the 18 Tamil Nadu MLAs, providing temporary relief to the Edappadi K. Palaniswami-led state government.

Background

- Nineteen MLAs loyal to Dhinakaran had met then Governor Vidyasagar Rao on 22 August 2017 and withdrew support to the Palaniswami government.
    - This prompted government whip S. Rajendran gives a call of disqualification for acting against the party
    - Within a few weeks, S.T.K. Jakkaiyan, one of the 19, switched loyalties back to the chief minister's camp.
- In September last year, the remaining 18 MLAs were disqualified by the Speaker P Dhanapal under the anti-defection law.

Earlier Judgment

A two-judge bench of Madras High Court, comprising then Chief Justice Indira Banerjee and Justice M. Sundar, had delivered a split verdict.

- Chief Justice Indira Banerjee (now a Supreme Court judge) upheld the Speaker's order.
    - Further, stating that the 18 MLAs had not produced any document to show that they had requested a meeting of the party for selection of some other individual as Chief Minister or

    - to show that they had suggested any other alternative name, Ms. Banerjee had said intra party differences on leadership should have been sorted within the party.
- Justice M. Sundar, setting it aside on multiple grounds including perversity, malafide and noncompliance of principles of natural justice.

Current Judgment

- Justice M. Sathyanarayanan, the Supreme Court-appointed third judge of the Madras High Court, upheld the validity of an order passed by Tamil Nadu Legislative Assembly Speaker P. Dhanapal on September 18, 2017.

Defection

- It is the switching of loyalty by an MP or MLA from the political party on whose ticket he won an election to another.
- The crux of arguments against defection is that candidates secure votes and get elected because of their affiliation with a political party.
- Defecting from that party violates the trust of voters and leads to political instability.
- Added to it is the role of money and the promise of power that is used to engineer defections, leading to the erosion of our political processes.

The way ahead

Over the years, the Law Commission, Administrative Reforms Commission, and the vice-president among others have recommended changes to strengthen the law. These include:

- Creating mechanisms for greater inner party democracy.
- Limiting the usage of whips only on votes in the legislature, which impact the continuance of government?
- Another matter that requires careful attention is the creating of disincentives for political parties from accepting defecting legislators to their fold.

Too easily offended (Section 153A and 295A of the Indian Penal Code)

The News:

- Recently, a privilege motion was moved against a Defence Analyst, named Abhijit Iyer-Mitra in the Odisha Assembly, demanding action against him for allegedly hurting religious sentiments after he tweeted a video commentary from the Konark temple.

A Note on Section 153-A of the Indian Penal Code:

- The purpose of the Section 153 A is to punish persons who indulge in wanton vilification or attacks upon the religion, race, place of birth, residence, language etc of any particular group or class or upon the founders and prophets of a religion.
- The jurisdiction of this Section is widened so as to make promotion of disharmony, enmity or feelings of hatred or ill-will between different religious, racial, language or regional groups or castes or communities punishable. Offence on moral turpitude is also covered in this section.
- The offence is a cognizable offence and the punishment for the same may extend to three years, or with fine, or with both.
- However, the punishment of the offence committed in a place of worship is enhanced up to five years and fine.

A look at the ingredients of Section 153-A:

1. The act of promoting enmity between different groups on grounds of religion, race, place of birth, residence, language, caste, community or any other group.
2. Acts prejudicial to the maintenance of harmony between different groups or castes or communities, if the acts disturb public tranquillity.
3. Acts causing fear or alarm or a feeling of insecurity among members of any religious, racial, language or regional group or caste or community by use of criminal force or violence against them.

A Note on Section 295 and 295-A of the Indian Penal Code:

- Section 295 of the Indian Penal Code makes destruction, damage, or defilement of a place of worship or an object held sacred, with intent to insult the religion of a class of persons, punishable with imprisonment which may extend to two years, or with fine , or with both. This section has been enacted to compel people to respect the religious susceptibilities of persons of different religious persuasion or creeds.
- The object of Section 295-A is to punish deliberate and malicious acts intended to outrage the religious feelings of any class by insulating its religion or the religious beliefs. This section only punishes an aggravated form of insult to religion when it is perpetrated with deliberate and malicious intention of outraging the religious feelings of a class.

A look at the ingredients of Section 295-A:

1. The accused must insult or attempt to insult the religion or religious beliefs of any class of citizens of India.
2. The said insult must be with a deliberate and malicious intention of outraging the religious feelings of the said class of citizens.
3. The said insult must be by words, either spoken or written, by signs or by visible representation or otherwise.
4. The offence under Section 295-A is cognizable and a non-bailable and non-compoundable offence.
5. The police have a power under to arrest a person charged under Section 295-A without a warrant.

Editorial Analysis:

- It is important to note that sending someone to the "safety" of a prison is no answer to questions raised by a prosecution under stringent laws that involve restrictions on free speech on grounds of maintaining public order and tranquility.
- In the video post against the backdrop of the Konark temple, Mr. Iyer-Mitra had made some comments which were clearly satirical in nature.
- In the wake of this, although it is entirely possible that his remarks offended some people, it is incorrect to assume his intent was to sow discord or create religious enmity.
- The State police of Odisha charged him with outraging or wounding religious feelings. Further, quite surprisingly, the police alleged that his remarks were directed against the "Odiya people".
- Experts believe that Mr. Iyer-Mitra's arrest in New Delhi by a police team from Odisha for his comments and some other tweets is another instance of the rampant misuse of two sections of the Indian Penal Code, which are 153A and 295A on the charges of promoting enmity between different groups on grounds of religion.

Concluding Remarks:

- This entire episode raises the flag of a larger concern.

- This concern revolves around the fact that provisions which ought to be invoked only under serious circumstances, an example of which being: a grave threat to public order and tranquillity, for instance, or, in the case of Section 295A, when a purported insult to religion has been done with malicious and deliberate intent, are being misused in a routine manner.
- When the onus is on the prosecution to show there was criminal intent either to provoke disharmony or deliberately offend religious sensibilities, it is simply wrong to invoke these sections for everything that someone finds objectionable.
- It is important to note that irreverence or even bad taste is not a crime.
- In conclusion, it is important to note that in a mature democracy, the casual resort to criminal prosecution for perceived insults to either a religion or a class of society ought to be actively discouraged.
- As a matter of fact, the case must serve as yet another prompt to begin the process of reading down Sections 153A and 295A.

No show: on J&K local polls (Local body elections in Jammu and Kashmir)

Note to Students:

This editorial coverage takes into account the recent issue of local body elections in the State of Jammu and Kashmir. Students are advised to go through this article as it has a relevance from the perspective of the GS-2 Paper (Polity and Governance).

- Here we have suitably signposted the Editorial Analysis into multiple headings.
- "Larger Background": This particular section talks about the broader background of the issue, taking into consideration specific points that may have been featured in previous editions of The Hindu. The thought process behind including this section is to give a 'storyline' approach to an aspirant when he/she goes through this topic.
- "Editorial Analysis": This particular section gives an insight towards the specific points covered in the specific editorial that is the subject of our study.
- "The Way Forward/Concluding Remarks": This sections gives aspirants concluding points that are taken from the article in question as well as some forwarding looking points taken from other articles, as and when required.

The important aspect to note here is that the issue being discussed in the news assumes priority over just the article.

Larger Background:

- The two main regional parties, the National Conference and the Peoples Democratic Party had given the call for a boycott to the local body elections in the state of Jammu and Kashmir.
- Their immediate protest was over the legal challenge in the Supreme Court to Article 35(A) of the Constitution that accords special powers to the Jammu and Kashmir legislature to decide who are the "permanent residents" of the State and on whom special rights and privileges can be conferred.
- Thus, it is important for students to have a background on what Article 35A of the Indian Constitution is about.

A Note on Article 35A

- The Article 35A was inserted in the Indian Constitution by the Presidential Order of 1954. The Article 35A yields special rights and immunities to the permanent residents of the Jammu and Kashmir from the rest of Indian citizen.
- In the light of this article a non-permanent resident of Jammu and Kashmir cannot enjoy any Government facilities.
- Article 35A is a provision incorporated in the Constitution giving the Jammu and Kashmir Legislature complete freedom to decide who all are 'permanent residents' of the State and confer on them special rights and privileges in public sector jobs, acquisition of property in the State, scholarships and other public aid and welfare.
- The provision mandates that no act of the legislature coming under it can be challenged for violating the Constitution or any other law of the land.

How was Article 35A incorporated?

- Article 35A was incorporated into the Constitution in 1954 by an order of the then President Rajendra Prasad on the advice of the Jawaharlal Nehru Cabinet. The controversial Constitution (Application to Jammu and Kashmir) Order of 1954 followed the 1952 Delhi Agreement entered into between Nehru and the then Prime Minister of Jammu and Kashmir Sheikh Abdullah, which extended Indian citizenship to the 'State subjects' of Jammu and Kashmir.
- The Presidential Order was issued under Article 370 (1) (d) of the Constitution. This provision allows the President to make certain "exceptions and modifications" to the Constitution for the benefit of 'State subjects' of Jammu and Kashmir.
- Thus, Article 35A was added to the Constitution as a testimony of the special consideration the Indian government accorded to the 'permanent residents' of Jammu and Kashmir.

A Look at the Elections:

There has been a poor turnout in the Kashmir valley for local polls.

- Just over a third of the electorate (35.1% provisionally) turned out to vote in the four-phase urban local body elections
- Experts believe that this is a wake-up call to the Union government.
- It is important to note that the turnout was not expected to be high.
- The two main regional parties, the National Conference and the Peoples Democratic Party had given the call for a boycott.
- Their immediate protest was over the legal challenge in the Supreme Court to Article 35(A) of the Constitution that accords special powers to the Jammu and Kashmir legislature to decide who are the "permanent residents" of the State and on whom special rights and privileges can be conferred.
- Given the boycott by these two parties and others, there was little political mobilization in the Valley.
- However, in Jammu, where both the Bharatiya Janata Party and the Congress have a strong base and where issues such as Article 35(A) don't have as much resonance, there was greater participation.
- It is important to note that the absence of any viable political competition in the local body polls in the Valley will only undermine the institutions and the victors.
- Unfortunately, with the collapse of the PDP-BJP coalition government in June this year, the absence of Kashmiri parties from the fray could heighten alienation at the street level.

Editorial Analysis:

- Despite being local body polls, the negligible public participation in them is significant, especially since only four years ago, the State had witnessed the highest voter turnout in 27 years.
- Last week saw only 35.1% turnout for the entire State, with Kashmiri participation dropping to a low single-digit percentage.
- Some experts have blamed this result on pressure from militants.
- However, it is worth noting that although militants often try to violently disrupt State elections, the boycott has rarely been as successful as this time.
- Certain experts have maintained that we must recognize that this boycott was essentially a democratic expression of the people who are frustrated not just by the government but by the entire system. They further assert that to ignore their voice is almost certainly going to lead to disastrous consequences for the State's already-deteriorating security situation.

Delaying the Election?

- Further, it is important to note that many experts have argued that the solution would have been to delay the elections.
- However, this would have also meant denying the people of Jammu their democratic rights as they did want the elections and have participated in them enthusiastically.
- Some experts believe that instead of solely focusing on stabilizing the situation, the administration at the Centre also tried to derive maximum political gains from the situation.

The Dilemma the Centre Faces:

- The dilemma that Prime Minister Narendra Modi is facing has been experienced by his predecessors as well.
- Critics believe that as the head of the government, they felt it necessary to maintain stability in the State. However, as leaders of large national parties, they also saw Jammu and Kashmir as a fertile political ground which could be used to expand the bases of their parties, even if it was at the cost of stability in the State. They further assert that the trade-off between these two impulses has been always difficult to negotiate.
- It is important to point out that there is nothing inherently wrong with any national party pursuing political gains within Jammu and Kashmir as they do in any other State.
- Some people even argue that it is actually preferable if a sensitive State such as Jammu and Kashmir is ruled by a reliable national party than by regional actors.

Tracing the Roots of the Issue:

- Experts believe that even the initial birth of the Kashmir insurgency in the late 1980s can be traced back to Indira Gandhi's decision to adopt a maximalist approach.
- For example: In 1975, Mrs. Gandhi had established a historic accord with Sheikh Abdullah, making Kashmir's accession to India final
- Then in a statesman-like move, Indira Gandhi had asked the Congress Chief Minister in the State to step down for Abdullah to assume the position in a gesture of solidarity.
- However, within two years, this desire to put national interest first had evaporated. Defeated in the 1977 general election, Mrs. Gandhi became desperate to regain political ground wherever she could find, which included Jammu and Kashmir.

Situation Post 1970's:

- The situation changed from the late 1970s. From the late 1970s, the Congress in the State began a steady campaign against the Abdullah government, accusing it of maladministration and corruption.
- This long-running feud weakened the legitimacy of both parties and as a consequence, created the space for extremism to grow.
- Inspired by the 1979 Iranian revolution, Kashmiri fundamentalists had begun mobilizing and the Abdullah-Congress fight allowed them to gain political traction.

Situation in the 1980's:

- By the early 1980s, extremists in State politics were becoming prominent enough that even the Central Intelligence Agency took notice.
- Cognizant of this fact, experts believe that Mrs. Gandhi should have taken a conciliatory approach with Abdullah.
- Instead, she decided that emerging security risks made it all the more important to politically replace him with a Congress government.
- For the next few years, the Congress continued to attack the Abdullah government, including in 1984, engineering a coup against Farooq Abdullah, Sheikh's successor.
- However, by the mid-1980s, both sides had been discredited. The Congress was seen as abusing its power for political gains; Abdullah was seen as a weak leader because of his failed attempt to walk the tight-rope between fighting the government of India and still remaining pro-India.
- The vacuum thus created was filled by extremist groups.
- The Muslim United Front, an alliance of Islamic right-wing parties, expanded its vote share from a mere 6.4% in 1983 to 32% in 1987, in the Valley. Finally recognizing this reality, in 1986 Rajiv Gandhi reached another accord with Abdullah which made both parties allies. However, by now it was too late. From a security standpoint it was necessary for the alliance to retain hold of the State; but in its weakened state, neither Abdullah nor the Congress could be sure that they would win the elections.

The Infamous 1987 State Elections:

- The infamous 1987 State elections were mired in allegations of widespread poll-rigging. Those who felt that the Abdullah-Congress alliance had "robbed" the elections became the first recruits of the incipient insurgency.
- In an effort towards trying to reach for maximum goals, which was security gains and political mileage, the Congress ended up losing both.
- Currently, the ruling party at the Centre, the BJP, finds itself in a similar position, where its political strategy is eroding the long-term security of the State.
- Critics believe that, what compounds matters is that, unlike the Congress in the 1980s, the BJP is actually making political gains. They point out that they must desist from this temptation.
- Sacrificing its short-term political gains, the BJP should look towards the long-term stability of the State by moderating its own political appetite.

Concluding Remarks:

- The reversal is discouraging as voter turnouts had increased significantly in this decade, growing ever since the mid-1990s.
- It is important to note that even between periods of intense protests, Assembly and parliamentary elections saw increased turnouts despite boycott calls by separatist groups.

- This indicated a willing acceptance of the need to engage in electoral democracy to address civic concerns even if there were substantive differences and anger with the State and Central governments over issues such as security, human rights violations and the status of J&K.
- However, the inability of the PDP-BJP government to come up with a coherent response to the unrest and protests that raged in 2016-17, and the subsequent imposition of Governor's Rule have only heightened matters.
- Further, experts believe that the work of the Centre's interlocutor, Dineshwar Sharma, to carry forward a dialogue with various groups and individuals in the State has also not been enough to arrest misgivings in the Valley.
- Finally, it has been suggested that the Centre must see the lack of participation in the polls in the Valley as a serious sign of alienation among the people and double down on ways to forge greater engagement.

PIL Under Scrutiny

A Look at a few Important Cases:

1. DC Wadhwa vs State of Bihar AIR (1986), Supreme Court held that a petitioner, a professor of political science, who had done substantial research and deeply interested in ensuring proper implementation of the constitutional provisions, challenged the practice followed by the state of Bihar in re-promulgating a number of ordinances without getting the approval of the legislature. The court held that the petitioner as a member of public has 'sufficient interest' to maintain a petition under Article 32.
2. MC Mehta vs Union of India (1988):
    - The Petitioner filed a writ petition in the Supreme Court for the prevention of nuisance caused by the pollution of the River Ganga by tanneries and soap factories on the banks of the river, at Kanpur.
      The Supreme Court of India emphasized that the petitioner was not a riparian owner. He was a person interested in protecting the lives of the people who made use of the water flowing in the river Ganga and as such his right to maintain the petition could not be disputed
    - It was believed that the nuisance caused by the pollution of the river Ganga was a public nuisance, which was widespread in range and indiscriminate in its effect and it would not be reasonable to expect any particular person to take proceedings to stop it as distinct from the community at large. The petition was therefore entertained as a Public Interest Litigation.
3. Shreya Singhal vs Union of India – The Landmark Sec. 66A Case:
    - This particular case revolves around the fundamental right of freedom of speech and expression under Article 19(1)(a) of the Constitution of India, which challenged the constitutional validity of section 66A and led to the struck down of section 66A of the Information Technology Act 2000 Section 66A is the punishment for sending offensive messages through communication services, etc.
    - The Supreme Court of India, quashed Section 66A, thereby giving a fresh lease of life to free speech in India.

What is Amicus Curiae?

Amicus Curiae means "friend of the court". It is used to assist in formulating a viewpoint and to make inquiries and reports in the PIL's.

Analysis by the Experts:

What is a Public Interest Litigation and what is its history?

1. K. Malhotra, Former Secretary, Law Ministry, Government of India, weighed in with his points here.

- The Public Interest Litigation (PIL) is infact a part of judicial activism. This is because it was started by the Supreme Court, way back in 1980's and the main architect of Public Interest Litigation in the Indian Judicial System was Justice P.N. Bhagwati and Justice Krishna Aiyer. The first important case relating to PIL which was handled by the Supreme Court was when for the construction of ASIAD village, the labourers were brought from UP, Biihar and other states and the contractors were exploiting them; they were not paying them their wages and the amenities was very bad. At that time, a PIL was filed. The Supreme Court later laid down the code that we are opening this particular door, for the people who cannot approach the Court and who are poor.
- The main idea of a PIL was that if someone's human rights or fundamental rights are being violated, a simple letter can be written to the Supreme Court or to the High Court and if the High Court or the Supreme Court feels that some rights of the individual is being violated, the Court can intervene and it would be registered as a Writ Petition.
- If anyone feels that their fundamental right(s) have been violated, then they can go directly to the Supreme Court under Article 32 of the Indian Constitution. If it is a violation of any other right, then the remedy can be under Article 226 of the Constitution.
- PIL does away with the requirement of 'locus standi'. When you approach a Court, generally, one say to say that he/she is aggrieved by the order of the Court, but in PIL's this concept of locus standi is done away with. Further, any public-spirited man can approach the Court and say that Fundamental Rights or rights of an individual or a group of people are being violated, and keeping this in view, if the Court feels that rights are being violated, then the Court can intervene and give a direction to the state authority to see that law is followed and that the rights are not violated.
- Unfortunately, later on, the Supreme Court and the High Court started intervening even in policy matters as well. There were instances in individual matters as well that they had intervened.
- In the S.P. Gupta Case, the Supreme Court itself had laid down certain norms as to in what cases, the PIL can be invoked. If today we are breathing clean air in Delhi, the credit would largely go to the Supreme Court by intervening through the route of Public Interest Litigation (PIL) and saying that in public transport, only CNG will be used, and that diesel vehicles will not be allowed to ply in Delhi.
- The concept of PIL's started in the United States of America. Some other democratic countries have also adopted it.
- Thus, wherever intervention is required by the virtue of judicial activism, the Supreme Court entertains public interest litigation (PIL's), and in PIL's, the procedural aspects, i.e. the normal procedural aspects need not be followed. Moreover, if fundamental rights of individuals are being violated, or the rights of a group are being violated, then the Courts can intervene and give a directive to the executive to comply with the provision of law.

Who is eligible and Who can file a PIL?

Virag Gupta, Advocate, Supreme Court weighed in with his arguments here.
If we see the history of PIL's, the original case, was of the year 1979, in the Hussainara Khatoon Vs State of Bihar case. Currently, we have three restrictions to PIL's. These are:

- They should not be politically motivated.
- One should not have alternate ways of obtaining justice.
- Thirdly, there should not be some hidden agenda of some other type of adversarial litigation

In this matter, Justice Gogoi said that even if there are certain violations, even if there is a violation of Article 14, only the aggrieved person can come forward in case there has been a violation of that kind. The Government has also observed that under the guise of PIL's, the Courts should not run the country.

A few things are very clear about PIL's.

1. They should protect human rights.
2. They should protect those actions of the community or the society which are required even if they are not related to the individual rights. But, under the guise of this, the Courts should not run the country. The scope of Article 32 or Article 226 should not be expanded to meet this end.

Is there a Standard Operating Procedure as to how a Court accepts a PIL?

Kanu Agarwal, Advocate, Supreme Court weighed in with his arguments to this question.
He responded by saying that there are none that come to his mind. Further, that the PIL jurisprudence in India can be divided into 4 phases.

1. In the first phase, it used to be limited to issues concerning bonded labour, issues concerning child labour, etc. wherein people did not have access to justice. This was the phase from the 70's to the 80's.
2. In the 90's, this started becoming slightly more sophisticated.
3. In the 2000's, something new came up. This was marked by the beginning of "specialized NGO's." These NGO's generally, have very little work on the ground, but have expertise in filing such PIL's. These NGO's are generally called by common names.
4. Currently, we have entered the 4th phase which can be called as the PIL mess. The PIL's had initially started as an extraordinary remedy where the cardinal principle of law, that of locus standi was given a go by. Nowadays, PIL's have become a tool of massive abuse.

An extraordinary remedy has today become a convenient remedy, wherein idiosyncrasies' of the judiciary, of the bench, of the lawyers, and their ideologies impact judgements, impact orders, and even after orders, sometimes, matters are not disposed of. Some Courts in the country today are functioning like mini-ministries, notices are issued to all states, Chief Secretaries are called to explain what is happening. The Courts have themselves laid down many guidelines, they have laid down certain rules, for example, in which cases one should maintain PIL's. But there has to be a certain level of consistency when it comes to the High Courts and the Supreme Court.

Are PIL's being misused at the end of the day?

1. K. Malhotra, Former Secretary, Law Ministry, Government of India, weighed in with his points here.

There are instances where PIL's are being misused. But, the fact remains that the concept of PIL's has been there in the Indian judiciary for the last four decades. Further, during the last 4 decades, the Government has not thought it proper to make a law regulating the filing of PIL's.
Thus, it has been left to the Court itself and it is not that the Court has not laid down the rules or regulations as to how the PIL should be used. There have been instances where the Supreme Court and the High Courts have imposed a heavy penalty where the process of PIL has been misused by the petitioner. But the fact remains that if you look at the larger interest of the society, if fundamental rights are to be enforced, it is the duty of the judiciary also to enforce fundamental rights of the individuals. And, if the individual himself cannot approach the Court, then there is nothing wrong if an NGO is filing a PIL with a good intention, and with the principles laid down by the Supreme Court, then there is nothing wrong in it. It is for the Courts to ensure that violations are penalized. Thus, the Pros outweigh the Cons as far as PIL's are concerned.

Are PIL's used by Corporates to delay and to put a hold or a stop to policy decisions?

Virag Gupta, Advocate, Supreme Court weighed in with his arguments here.
PIL jurisprudence is there in all the High Courts of India and in the Supreme Court. PIL rules are there and in those rules, details are given as to which type of PIL should be filed, who can file the PIL, etc. He personally feels that Parliament cannot pass a law regarding PIL's because its genesis is from the Supreme Court as per their own jurisdiction, and the Court has expanded the scope of Article 21.

Regarding filing of PIL's, certain points are noteworthy:

- If a matter is already pending before a court, then the court shouldn't entertain a PIL on that issue.

- However, we are seeing daily that in the Delhi High Court if one matter is filed, then the same issue is being entertained by another High Court. Further, on the same issue, people are going to the Supreme Court.
- Next, before filing the PIL, the person must give representation to the concerned authority because matters that are not urgent are being raised. Thus, one must file a representation so that the Government can respond and only after that one can file the PIL.
- Next, there must be locus for a person filing the PIL.
- Then, there are many issues which are defined in the law. For example, if a person wants to file an FIR, and if the FIR is not registered, people are directly going to the High Court or the Supreme Court. If someone has filed a complaint, to question the complaint, people are going to the High Court and the Supreme Court. It is important to note that there are procedures laid down in the IPC and in the CrPC.
- He personally feels that Courts are more responsible for such type of PIL mess, wherein, many times, Courts have become the local police station where anybody can anytime come and mention the matter, get it listed. It is a matter of surprise that some Courts are open even during midnight. Thus, what are the regulations? The matters of a genuine nature are listed for many years together, which is creating a huge pendency of cases.
- It is important to note that Right to early justice, Right to speedy justice is a fundamental right as per Article 21. Thus, as per the Keshavananda Bharati Case (1973), there is a clear-cut division of work among the Judiciary and the Parliament. Thus, the Courts should see their own way of working- whether all the vacancies in the lower courts are filled or not.
- It is important to ensure speedy justice in the lower courts as there are 3 crore cases which are now pending before the judiciary. In these 3 crore cases, more than 25 crore people of the country are affected. This is because, in each case, there are two parties atleast, and in each party if there are 4 persons in a family, it makes up to a figure of 25 crores.
- These 25 crore people have the fundamental right to speedy justice.

Should only the poor be eligible to file PIL's?

Kanu Agarwal, Advocate, Supreme Court weighed in with his arguments to this question.
The answer to the issue is very simple. The answer is judicial restraint. Further judicious exercise of discretion is required. The problem is not PIL. The problem is not the jurisprudence. The problem is not that the court should not intervene in an extraordinary situation. The problem is not that the Government has not framed regulations.

What happens to judicial activism?

1. K. Malhotra, Former Secretary, Law Ministry, Government of India, weighed in with his points here.
   - Judicial activism will always remain there and it has to be there. If we look at the constitutional scheme, each organ is assigned certain duties, and each organ is supposed to function within the parameters that are laid down in the constitution itself.
   - Suppose any organ, for example, the executive or the legislature is not discharging the functions which it is supposed to discharge, what happens? Is there no remedy? The constitution itself empowers the Supreme Court and even the High Courts by the way of writ jurisdiction to enforce the fundamental rights of the individual. Thus, in case such a situation arises, one should see no reason as to why judicial activism should not be there.
   - However, this should stop at judicial activism and should not amount to judicial overreach. For example: In 1997, the Supreme Court laid down guidelines in the Vishakha case, pending formal legislation. The Supreme Court of India's judgement only proposed guidelines to alleviate the problem of sexual harassment in 1997. This was done so in the exercise of Article 142 of the Indian Constitution.

To this extent, judicial activism is welcome. But, there have been certain policy matters also, where the matter should have been left to the executive or the legislature, but the courts have intervened. This is the cause of concern.

- It depends on a case to case basis as to where judicial activism stops and where does overreach begin.

Further guidelines have been laid down by the Supreme Court itself as to the cases in which the Public Interest Litigation (PIL) can be used.

It has been almost 4 decades since PIL's have come into being. As time has gone by, so has the scope of PIL's. What are your thoughts?

1. P. Singh, Former Chairperson, Delhi Judicial Academy responded to this question with his arguments.

The principle of Public Interest Litigation (PIL) was laid down in the judges case in 1980's, by Justice Bhagwati, this included the cases in which people could approach the Court. It was most of the time used for the benefit of the poor. Further, judicial activism should not be confused with Public Interest Litigation (PIL). Judicial activism can be in private litigation also- which is where a person approaches the court himself for his own interest. Judicial activism can be in the case of Public Interest Litigation also. But, that does not mean that Public Interest Litigation and Judicial Activism are one and the same thing. They are two very different concepts.

It is important to note that it is not within the jurisdiction of the Parliament or the State legislatures to lay down the procedures for the PIL's. This would fall under the purview of the judges of the Court to lay down the procedure.

Although there are some procedures which has been laid down, but the Courts themselves are in some difficulty as to which cases are to be taken and which cases are not to be taken. The Courts currently decide on a case-to-case basis as to which is a genuine case and which is not a genuine case.

Virag Gupta, Advocate, Supreme Court weighed in with his arguments here.

Both the 'private interest litigation' and 'publicity interest litigation' must be discouraged.

An active or a strong judiciary is very good and should be encouraged. But, the inherent power of Article 32 or the inherent power of Article 142 should not be misused to cause an overreach to the other sections of the Constitution which is not meant for the judiciary.

Example of Section 377 of the Indian Penal Code (IPC): A curative petition was pending in the year 2016, and in spite of this, the Supreme Court of India entertained 5 new writ petitions. This is something which is strange and should not be done when a curative petition is pending

When a curative petition is pending, fresh petitions on the matter should not be entertained.

Further, the Supreme Court of India should not work like the regulator of the Government. There may be regulatory failure of many spheres of the Economy, but the Supreme Court itself is a regulator of the judicial system, thus, first, the pending 3 Crore cases should be disposed. After this, other matters should be regulated which is under the domain of Article 32.

2. ECONOMY

Alphonso from Konkan gets GI tag

- Alphonso from Ratnagiri, Sindhudurg, Palghar, Thane and Raigad districts of Maharashtra, is registered as Geographical Indication (GI).
- Alphonso, better known as 'Hapus' in Maharashtra, is in demand in domestic and international markets not only for its taste but also for pleasant fragrance and vibrant colour.
- It has long been one of the world's most popular fruit and is exported to various countries including Japan, Korea and Europe. New markets such as USA and Australia have recently opened up.

Amended Technology Upgradation Fund Scheme (ATUFS)

- The Cabinet Committee on Economic Affairs had approved the introduction of ATUFS in place of the existing Revised Restructured Technology Upgradation Fund Scheme (RR-TUFS) for technology Upgradation of the textiles industry.

The new scheme will be implemented across two broad categories

- For the sub sectors of apparel, garment and technical textiles, upto 15% subsidy would be provided on capital investment, subject to a ceiling of Rs 30 crore for entrepreneurs over a period of five years.
- The remaining sub-sectors would be eligible for subsidy at a rate of 10%, subject to a ceiling of Rs 20 crore on similar lines.

Highlights of the scheme

- Limited Liability Partnerships will also be eligible for capital subsidy
- Co-operative banks included as lending agency under the scheme
- Textile Commissioner to set up Technical Committee to prepare list of machinery manufacturers.
- Accessories, attachments, sample machines, spares also eligible for subsidy up to 20% of basic machinery cost
- Except in merger or takeover, plant & machinery bought with subsidy under TUFS shall not be disposed of before 10 years
- Textile units permitted to avail benefits of state govt schemes in addition to ATUFS benefits.

Significance

- The ATUFS is set to increase textile exports from India.
- This will also help generate employment
- It will give boost to "Make in India" in the textiles sector.
- Provides better technology looms for improvement in quality and productivity.

Competition Law Review Committee

Context

- In a bid to ensure that legislation is in sync with the needs of strong economic fundamentals, the Centre constituted a Competition Law Review Committee to review the Competition Act, which was passed in 2002

Details

The Review Committee will be chaired by Ministry of Corporate Affairs Secretary, Injeti Srinivas, and will comprise of the Joint Secretary (Competition), MCA, Chairperson of the Competition Commission of India (CCI), Chairperson of the Insolvency and Bankruptcy Board of India, and a number of law firms.

- The newly-formed panel has been tasked to review the Competition Act/Rules/Regulations, in view of the changing business environment and bring necessary changes, if required;
- to look into international best practices in the competition fields, especially anti-trust laws,
- merger guidelines and handling cross border competition issues and
- To study other regulatory regimes/institutional mechanisms/government policies which overlap with the Competition Act.

Cream Skimming

- This refers to a business practice where a company decides to serve only customers who can add a substantial amount of profits to the company's bottom line.
- This means that companies may only serve customers who are willing to buy high-priced services or services which can be produced at a low cost.
- Low-value customers who cannot pay an attractive price for a product or choose only to purchase products with high production costs may thus be pushed out of the marketplace by companies.
- While the practice has been criticised as discriminatory, some have argued that low-value customers may still be served by other profit-seeking firms.

Banking

- "Cream skimming," is a lending strategy that involves extending credit to only wealthy and transparent segments of the credit market, while excluding segments that comprise poor and marginal borrowers.
- Foreign banks are primarily located in urban-areas of high income States because of low risk factor.
- Foreign banks target high-income States as they have greater workforce in the formal sector whose compliance with their norms will be higher

Currency Monitoring List

Context

- The Treasury Department of US said it could remove India from its currency monitoring list of major trading partners

Background

- India for the first time was placed by the US in its currency monitoring list of countries with potentially questionable foreign exchange policies in April along with five other countries – China, Germany, Japan, South Korea and Switzerland.

Criteria

The Treasury's observations are primarily based on three criteria, namely,

- A significant trade surplus with the US (more than $20bn),
- Current Account Surplus at and above 3 per cent of GDP and
- Net purchases of foreign currency at and above 2% of GDP.

Status

- India escapes the net on two criteria – it is still under the watch list as it runs a trade surplus with the United States even though the economy in general is in deficit.
- India has a significant bilateral goods trade surplus with the United States, totaling $23 billion over the four quarters through June 2018, but India's current account is in deficit at 1.9 per cent of GDP.
- If this remains the case at the time of its next Report, Treasury would remove India from the Monitoring List

Direct tax base widens sharply over 4 years

Context

- According to new back series data released by the government, direct tax base has significantly widened in the last few years.

Key Stats

No. of returns filed (excl. revised)	FY14	FY15	FY16	FY17	FY18
Company + firms, in lakh	16.76	17.45	18.91	19.85	23.37
Individual, in crore	3.5	3.74	4.29	5.21	6.44
Total number of taxpayers, in cr.	5.28	5.72	6.15	6.93	7.41

Details of increase

- The data shows the direct tax-GDP ratio rose to 5.98% in FY 2017-18, the highest it has been in the last 10 years.
- The number of persons filing income tax returns increased by about 65% during this period from 3.31 crore in FY 2013-14 to 5.44 crore in FY 2017-18.
- The number of individual taxpayers disclosing income above ₹1 crore increased during the period under reference from 48,416 to 81,344, which translates into a growth of 68%.

- The overall number of taxpayers (including corporates, firms, and Hindu Undivided Families) declaring an income above ₹1 crore a year also saw a sharp growth over the three years under consideration.

- During the four-year period under reference, the number of salaried taxpayers increased from 1.70 crore for AY 2014-15 to 2.33 crore for AY 2017-18, an increase of 37%.
- During the same period, there has been a growth of 19% in the number of non-salaried individual taxpayers from 1.95 crore to 2.33 crore and the average non-salary income declared rose by 27% from ₹4.11 lakh in AY 2014-15 to ₹5.23 lakh in AY 2017-18.
- The total direct tax collection is estimated to be over ₹10 lakh crore in 2017-18, an increase of about 18% from the previous year.

Reasons for increase in the number of tax returns

- One, the effect of Demonetization
- Two, the increase in the use of information being collected digitally and being used by the tax department
- Three, the movement towards digital assessment and decrease in the number of cases being picked up for scrutiny
- Four, the ease of getting refund, majorly by small and medium taxpayers.

Issue Area

- Amidst increasing global tax competition, India is likely to face pressure to bring down corporate tax rates if it wants to maintain its stature as an attractive investment destination.
- Efforts to draft a new direct tax code, however, are yet to yield fruit due to bureaucratic delays.

Conclusion

- Going forward, a further increase in the share of direct taxes will help the government to lower regressive indirect taxes that impose a significant burden on the poor.
- Direct taxes are also a better choice from the standpoint of economic efficiency as they help avoid the severe distortionary effects of indirect taxes such as the Goods and Services Tax.

Enforcement Directorate

- Enforcement Directorate, established in the year 1956, is a law enforcement agency and economic intelligence agency responsible for enforcing economic laws and fighting economic crime in India.
- It functions under the overall aegis of the Department of Revenue, Ministry of Finance.
- The Directorate of Enforcement has its Headquarters at New Delhi
- It is headed by the Director of Enforcement.
- There are five Regional offices at Mumbai, Chennai, Chandigarh, Kolkata and Delhi headed by Special Directors of Enforcement.

Functions

- Investigate offences of money laundering under the provisions of Prevention of Money Laundering Act, 2002(PMLA)
- Render cooperation to foreign countries in matters relating to money laundering and restitution of assets under the provisions of PMLA and to seek cooperation in such matters.

- Investigate contraventions of the provisions of Foreign Exchange Management Act with powers to impose penalties on those adjudged guilty.
- Processing cases of fugitive/s from India under Fugitive Economic Offenders Act, 2018.
    - The objective of this Act is to deter fugitive economic offenders from evading the process of law in India by staying outside the jurisdiction of Indian Courts and to preserve the sanctity of the rule of law in India.

Context

- Govt appoints Sanjay Mishra as new Enforcement Directorate chief

ESIC wins 'ISSA GOOD Practice Award, Asia & the Pacific 2018'

Context

- The Employees' State Insurance Corporation (ESIC) has won the 'ISSA Good Practice Award' for Administrative Solution for Coverage Extension at the "Regional Social Security Forum for Asia and the Pacific" held at Kuala Lumpur, Malaysia

Details

- The award recognizes the measures taken by ESIC for extension of coverage-SPREE (Scheme for Promoting Registration of Employers and Employees), reduced rate of contribution rates for 24 months in newly implemented areas and raising the wage limit for coverage under the ESI Act, etc.

Regional Social Security Forum for Asia and the Pacific

- It is a triennial Forum, which is the most important social security event in the Region.
- For the triennial Regional Forum, ISSA invites submissions for the ISSA Good Practices Award for Asia and the Pacific Regions.
- The Forum provides unique opportunities to CEOs and Managers of ISSA Member Institutions to discuss key social security challenges and share their experiences.

ISSA (International Social Security Association)

- It is the principal international organization for Social Security Organizations, Govts and Departments of Social Security.
- The ISSA, founded in 1927 under the auspices of the International Labour Organization (ILO), Geneva, promotes excellence in social security administration through professional guidelines, expert knowledge, services and support to enable its Members to develop dynamic social security systems.

Feminization of agriculture in India

Introduction

- October 15 is observed, respectively, as International Day of Rural Women by the United Nations, and National Women's Farmer's Day (Rashtriya Mahila Kisan Diwas) in India.
- In 2016, the Ministry of Agriculture and Farmers' Welfare decided to take the lead in celebrating the event, duly recognizing the multidimensional role of women at every stage in agriculture — from sowing to planting, drainage, irrigation, fertilizer, plant protection, harvesting, weeding, and storage.
- The Ministry has even proposed deliberations to discuss the challenges that women farmers face in crop cultivation, animal husbandry, dairying and fisheries. The aim is to work towards an action plan using better access to credit, skill development and entrepreneurial opportunities.

Stats

- According to Oxfam India, women are responsible for about 60-80% of food and 90% of dairy production, respectively.
- The Agriculture Census (2010-11) shows that out of an estimated 118.7 million cultivators, 30.3% were females. Similarly, out of an estimated 144.3 million agricultural labourers, 42.6% were females.
- In terms of ownership of operational holdings, the latest Agriculture Census (2015-16) is startling. Out of a total 146 million operational holdings, the percentage share of female operational holders is 13.87% (20.25 million), a nearly one percentage increase over five years.

While the "feminization of agriculture" is taking place at a fast pace, the government has yet to gear up to address the challenges that women farmers and labourers face.

Concerns

- The work by women farmers, in crop cultivation, livestock management or at home, often goes unnoticed.
- Attempts by the government to impart them training in poultry, apiculture and rural handicrafts is trivial given their large numbers
- The biggest challenge is the powerlessness of women in terms of claiming ownership of the land they have been cultivating.
    - In Census 2015, almost 86% of women farmers are devoid of this property right in land perhaps on account of the patriarchal set up in our society.
    - Notably, a lack of ownership of land does not allow women farmers to approach banks for institutional loans as banks usually consider land as collateral.
- Women farmers have hardly any representation in society and are nowhere discernible in farmers' organizations or in occasional protests.
- Land holdings have doubled over the years with the result that the average size of farms has shrunk. Therefore, a majority of farmers fall under the small and marginal category, having less than 2 ha of land — a category that, undisputedly, includes women farmers. A declining size of land holdings may act as a deterrent due to lower net returns earned and technology adoption.
- Female cultivators and labourers generally perform labor-intensive tasks (hoeing, grass cutting, weeding, picking, cotton stick collection, looking after livestock). In addition to working on the farm, they have household and familial responsibilities. Despite more work (paid and unpaid) for longer hours when compared to male farmers, women farmers can neither make any claim on output nor ask for a higher wage rate. An increased work burden with lower compensation is a key factor responsible for their marginalization
- When compared to men, women generally have less access to resources and modern inputs (seeds, fertilizers, pesticides) to make farming more productive.

Measures to be taken

Research worldwide shows that women with access to secure land, formal credit and access to market have greater propensity in making investments in improving harvest, increasing productivity, and improving household food security and nutrition.

- Provision of credit without collateral under the micro-finance initiative of the National Bank for Agriculture and Rural Development should be encouraged.
- Better access to credit, technology, and provision of entrepreneurship abilities will further boost women's confidence and help them gain recognition as farmers.

- The possibility of collective farming can be encouraged to make women self-reliant. Training and skills imparted to women as has been done by some self-help groups and cooperative-based dairy activities (Saras in Rajasthan and Amul in Gujarat). These can be explored further through farmer producer organizations.
- Government flagship schemes such as the National Food Security Mission, Sub-mission on Seed and Planting Material and the Rashtriya Krishi Vikas Yojana must include women-centric strategies and dedicated expenditure.
- It is important to have gender-friendly tools and machinery for various farm operations. Most farm machinery is difficult for women to operate. Manufacturers should be incentivized to come up with better solutions. Farm machinery banks and custom hiring centres promoted by many State governments can be roped in to provide subsidised rental services to women farmers.
- The Food and Agriculture Organization says that equalizing access to productive resources for female and male farmers could increase agricultural output in developing countries by as much as 2.5% to 4%. Krishi Vigyan Kendras in every district can be assigned an additional task to educate and train women farmers about innovative technology along with extension services.

Way forward

- As more women are getting into farming, the foremost task for their sustenance is to assign property rights in land
- Once women farmers are listed as primary earners and owners of land assets, acceptance will ensue and their activities will expand to acquiring loans, deciding the crops to be grown using appropriate technology and machines, and disposing of produce to village traders or in wholesale markets, thus elevating their place as real and visible farmers.
- So, in order to sustain women's interest in farming and also their uplift, there must be a vision backed by an appropriate policy and doable action plans.

Fisheries and Aquaculture Infrastructure Development Fund

Context

- The Cabinet Committee on Economic Affairs has given its approval for creation of special Fisheries and Aquaculture Infrastructure Development Fund (FIDF)

Details

- The Centre has set up a 7,522-crore fund to create infrastructure facilities for the fisheries sector and help boost annual fish production to 20 million tonnes by 2022-23 from the current production of 11.4 million tonnes.
- FIDF would provide concessional finance to state governments/UTs and state entities, cooperatives, individuals and entrepreneurs etc, for taking up of the identified investment activities of fisheries development.
- Under FIDF, loan lending will be over a period of five years from 2018-19 to 2022-23 and maximum repayment will be over a period of 12 years inclusive of moratorium of two years on repayment of principal.
- The government aims to achieve a sustainable growth of 8-9 per cent, so that fish production reaches to the level of about 20 million tonnes by 2022-23.

Significance

- This fund would help in creation of fisheries infrastructure facilities both in marine and inland fisheries sectors, which would boost fish production and help achieve target of 15 million tonne by 2020 set under the blue revolution.
- This fund would also create employment opportunities to over 9.40 lakh fishers/ fishermen/fisherfolk and other entrepreneurs in fishing and allied activities.
- It would help attract private investment in creation and management of fisheries infrastructure facilities.

Fruit Rot Disease

Context

- It has struck arecanut plantations of Dakshina Kannada district owing to heavy rainfall.
- It is known as "koleroga" in Kannada and as "mahali" in Malayalam

Details

- It is caused by the fungus Phytophthora meadii,
- It is a serious disease that could lead to great economic losses causing fruit drop of 50 to 100 per cent in individual palms.

Symptoms

- Its symptoms are invariably noticed as dark green water-soaked lesions near the perianth (calyx).
- The infected fruits lose their natural green colour. The lesions on the fruits gradually spread covering the whole surface before or after shedding.
- The infection of heartleaf results in bud rot and the outermost leaf sheath leads to crown rot.
- The disease appears usually 15 to 20 days after the onset of regular monsoon rains and may continue up to the end of the rainy season.
- Continuous heavy rainfall coupled with low temperature (20 to 23 degree Celsius), high relative humidity and intermittent rain and sunshine hours are factors that favour the occurrence of fruit rot.

Solutions

- Prophylactic spraying with one per cent Bordeaux mixture on the bunches is needed to prevent the incidence of the disease.
    - The initial spray is to be done immediately after the onset of monsoon showers and the second spray after an interval of 40 to 45 days.
    - The spraying should be taken up when there is no rain.
    - Care should be taken to prepare the mixture to get the right quality as otherwise an acidic mixture will lead to copper injury and subsequent heavy shedding of nuts
- As mechanical control measure, the areca bunches can be covered with polythene covers before the start of the heavy monsoon showers.
- Phytosanitary measures such as removal of all dried and infected bunch attached to the palm and collection and destruction of all shed nuts will prove to be rewarding.

Fusion Energy Conference

Context

- The 27th Fusion Energy Conference was organized by International Atomic Energy Agency (IAEA) in Gandhinagar and hosted by the Department of Atomic Energy and Gandhinagar-based Institute of Plasma Research.

Details

- The Conference provides a forum for the discussion of key physics and technology issues as well as innovative concepts of direct relevance to the use of nuclear fusion as a source of energy.
- It aims to serve as a platform for sharing the results of research and development efforts in both national and international fusion experiments that have been shaped by these new priorities, and to thereby help in pinpointing worldwide advances in fusion theory, experiments, technology, engineering, safety and socio-economics
- Experts from across the world will discuss the new challenges being faced by the fusion community in the light of a number of next-step fusion devices being implemented currently
- Among the participants are international bodies like the ITER Organization and the European Atomic Energy Community (Euratom).
- The conference will serve to identify possibilities and means for continuous and effective international collaboration in this area
- The conference will also set these results against the backdrop of the requirements for a net energy producing fusion device and a fusion power plant in general, and will thus help in defining the way forward

Future Policy Gold Award

Context

- Sikkim has won the UN Food and Agriculture Organization's (FAO) Future Policy Gold Award for its achievement in becoming the world's first totally organic agriculture state.

Details

- Sikkim won the Future Policy Award 2018, beating 51 nominated policies from 25 countries
- Sikkim became the first state in India to officially announce adoption of organic farming in the year 2003 to ensure long term sustenance of soil fertility, protection of environment and ecology, healthy living and decreasing the risk of health ailments.
- In 2003, Sikkim stopped imports of chemical fertilizers in the State and since then the cultivatable land there is practically organic and farmers of Sikkim are traditional users of organic manure.
- Nicknamed the "Oscar for best policies", the award is co-organized with the FAO by The World Future Council (WFC) and IFOAM -- Organics International, and recognizes "the world's best laws and policies promoting agroecology".
- Brazil, Denmark, Quito and Ecuador shared the Silver award.

Generalized System of Preferences (GSP)

The Generalized System of Preferences (GSP) is a U.S. trade program designed to promote economic growth in the developing world where the U.S. government selects a group of poor countries and a set of products and it offers these countries lower-than-normal tariffs than it applies to imports from all other World Trade Organization countries.

- It is the largest and oldest US trade preference programme instituted on January 1, 1976, by the Trade Act of 1974.
- The GSP program is administered by the Office of the U.S. Trade Representative.

Criteria

- US has made the grant of benefit under the scheme subject to policy conditionality and one of the tests applied is whether the beneficiary concerned is providing equitable and reasonable access to its markets.
    - The continuation of this benefit is going to involve a process of give and take
- From this perspective, the US government takes up review of the beneficiary government's practices every year.

What does US say?

- US dairy industry requested a review of India's GSP benefits, given Indian trade barriers affecting the US exports in those sectors.
- On medical devices, the US industry contends that the price control that the government has imposed on coronary stents and knee implants have severely impacted their sales and caused them to withdraw their products from the Indian market.
- USTR further says India has implemented a wide array of trade barriers that create serious negative effects on US commerce

How was it helped India?

- India has been the largest beneficiary developing country every year continuously from 2011.
- According to the USTR, the total US imports under GSP in 2017 was USD 21.2 billion, of which India was the biggest beneficiary with USD 5.6 billion, followed by Thailand (USD4.2 billion) and Brazil (USD 2.5 billion).
- Some of the products that have benefited from the preference and continue to do so are auto components, machinery and mechanical appliances and electrical machinery.
- Others like jewellery, have benefited in the past, with imports touching a high of $2.4 billion, before their GSP treatment was curtailed under the CNLs.
- This tariff preference helps new exporters to penetrate a market and established exporters to increase their market share and to improve upon the profit margins, in the donor country.

Scheme also has a number of features that limit its benefits:

- First, several categories of products are excluded altogether from the GSP benefits.
    - These include textiles and apparel, footwear, leather wearing apparel, glassware and a number of electronic and steel items considered to be import-sensitive. Thus, most of the main labor-intensive manufactures, in which India has an export interest, are excluded from the purview of the US GSP scheme
- Second, even for products included in the scheme, the benefit is limited by the Competitive Need Limitations (CNLs).
    - An individual beneficiary country gets excluded from the benefit once its exports of a product exceed a certain value limit in a calendar year ($185 million in 2018) or
    - Its share equals or exceeds 50% of the GSP imports of that product from all beneficiaries.

- In subsequent years, if the share in imports of an excluded beneficiary falls below the CNLs, the benefit can be restored for that beneficiary, but the process is not automatic and many times the USTR decides to continue the exclusion.

Way forward

- India should not be content only with the continuation of its GSP beneficiary status, but should up the ante by asking for the restoration of the benefit for the excluded jewellery tariff lines in which imports into the US have been below the statutory red lines of the CNLs

Global Hunger Index 2018

Context

The 2018 Global Hunger Index ranks India at 103 out of 119 countries, with hunger levels in the country categorized as "serious."

Indicators

It is a peer-reviewed publication released annually by Welthungerhilfe and Concern Worldwide. (The International Food Policy Research Institute was also involved with the publication until this year.)

Four main indicators are used to calculate hunger levels in the report, which

- The first indicator is undernourishment, which is the share of the population which is undernourished and reflects insufficient caloric intake.
    - The next three indicators use data for children under five:
    - child wasting (low weight for height), reflecting acute under-nutrition;
    - child stunting (low height for age), reflecting chronic under-nutrition; and
    - Child mortality.

Details

- At least one in five Indian children under the age of five are wasted, which means they have extremely low weight for their height.
    - The prevalence of child wasting has actually worsened in comparison to previous reference years. It stood at 17.1% in 2000, and increased to 20% in 2005. In 2018, it stands at 21%.
    - The only country with a higher prevalence of child wasting is the war-torn nation of South Sudan
- India has shown improvement in three of the indicators over the comparable reference years.
- The percentage of undernourished people in the population has dropped from 18.2% in 2000 to 14.8% in 2018.
- The child mortality rate has halved from 9.2% to 4.3%, while child stunting has dropped from 54.2% to 38.4% over the same period.

World over

- Child wasting is high across South Asia, constituting a "critical public health emergency", according to UN organizations.
- The report notes that wasting rates are highest for infants aged 0 to 5 months, suggesting that attention to birth outcomes and breastfeeding is important.
- The report notes that in South Asia, "maternal BMI and access to improved water and sanitation are more closely associated with rates of child wasting than household wealth, suggesting that a reduction in poverty alone may not be sufficient to correct the problem…Factors that could reduce child stunting in South Asia include increased consumption of non-staple foods, access to sanitation, women's education, access to safe water, gender equality, and national food availability.

Global Skills Park (GSP)

Context

- India and Asian Development Bank (ADB) signed a $150 million loan agreement to establish the country's first multi-skills park in Madhya Pradesh to create a more skilled workforce

Details

- It is to be set up in Bhopal
- It will help enhance the quality of Technical and Vocational Education and Training (TVET) system in the state.
- The campus will have training facilities focusing on skills for manufacturing, service and advanced agricultural jobs, benefitting about 20,000 trainees and trainers
- The project will also help in modernizing 10 industrial training institutes across the state by renovating training infrastructure and upgrading skills courses to align with industry and market needs

Human Capital Index

Context

- The World Bank released today a Human Capital Index (HCI) as part of the World Development Report 2019 which placed India at the 115th position
- Broader theme of the World Development Report (WDR) this year is "The Changing Nature of Work".

Human Capital Project (HCP)

- The HCP programme is claimed to be a program of advocacy, measurement, and analytical work to raise awareness and increase demand for interventions to build human capital.
- There are three components of HCP-
    - a cross-country human capital measurement metric called the Human Capital Index (HCI)
    - a programme of measurement and research to inform policy action,
    - a programme of support for country strategies to accelerate investment in human capital.

The HCI has three components:

- Survival, as measured by under-5 mortality rates;
- Expected years of Quality-Adjusted School which combines information on the quantity and quality of education (quality is measured by harmonizing test scores from major international student achievement testing programs and quantity from number of years of school that a child can expect to obtain by age 18 given the prevailing pattern of enrolment rates across grades in respective countries); and
- Health environment using two proxies of (a) adult survival rates and (b) the rate of stunting for children under age 5.

Difference from HDI

- The HCI uses survival rates and stunting rate
    - Instead of life expectancy as measure of health, and quality-adjusted learning instead of merely years of schooling as measure of education.
- HCI also excludes per capita income
    - Whereas the HDI uses it.

Two significant changes from HDI are exclusion of income component and introduction of quality adjustment in learning. Exclusion of income element and introduction of quality adjustment makes HCI far less representative of Human Capital Development than the Index claims it to be.

Details

- The report ranked 157 economies on parameters like child mortality, health and education.
- It claims to seek to measure the amount of human capital that a child born today can expect on attaining the age of 18.
- The HCI index values are contended to convey the productivity of the next generation of workers, compared to a benchmark of complete standard education and full health.

India

- India was ranked 115 among 157 countries. That's much below its Asian peers, including China ranked 46, Indonesia (87), Malaysia (55).
- Indians born today are likely to be just 44% productive as workers, way below their Asian peers

- Poor investment in human capital puts a threat on productivity of the India's future workforce revealing that India's human capital productivity will be half of what Singapore citizens will achieve.
- The report, which took into account the human capital investments and outcomes, almost reiterated that Indian children are not learning enough in schools.
    - Factoring in what children actually learn, expected years of school is only 5.8 years, effectively putting to question the impact of the Right to Education Act, 2009, that promises eight years of compulsory education to all Indians.

The government expressed reservation

- There are major methodological weaknesses, besides substantial data gaps
- the methodology for testing is largely controlled by non UN agencies and is not globalized
- Several key factors, on the other hand, seem to have been neglected.
- The differences in development outcomes arising from governance issues, political systems, socio-cultural context, and legacy issues have been totally ignored.
- The metric of HCI is too simplistic at one level and too ignorant of development realities at another.
- The HCI score for India does not reflect the key initiatives that are being taken for developing human capital in the country.

World over

- Singapore topped the poll after it was highly rated for its universal healthcare system, education exams results and life expectancy figures, as per the HCI released by the World Bank.
- It is followed by South Korea, Japan, Hong Kong and Finland.

Infrastructure Leasing and Financial Services (IL&FS)

IL&FS - Basic Information

- Infrastructure Leasing and Financial Services
- It was established in 1987
- It was incorporated to fund/finance infra projects
- It has invested heavily in the infrastructure projects
- As on March 31, 2018 the stake in IL&FS was held by
    - Life Insurance Corporation of India - 25.34%
    - ORIX Corporation from Japan - 23.54%
    - Abu Dhabi Investment Authority - 12.56%
    - Housing Development Finance Corporation Ltd - 9.02%
    - Central Bank - 7.67%
    - State Bank of India - 6.42%

What actually happened?

- The debt to equity ratio was very high (18.7 which was 11.5 a year ago)
- The passage of LARR forced the company to pay out a huge amount of compensation. It paid out compensation of about ₹ 17000 Cr
- The company shifted from being a financier of the infra projects to owner of the projects (but this led to Asset Liability Mismatch - borrowing on short term instruments to invest in long term projects or in other terms it is a situation where your liabilities are short term in nature but the assets will generate

revenue in long term). As the cost related to infrastructure projects shot up, the projects became unviable

- Overdependence on the PPP model. The concessionaire presumed that the government would be playing an important role in getting clearances, land acquisition etc but the reality was entirely different
- Huge amount with the government is under dispute in arbitration (the recovery rates are very poor in arbitration). As per Bloomberg article, the government owes about $90 bn to the company which have been locked because various disputes. The recovery through arbitration is very poor i.e. about 25 to 30% so the company can expect recovery of about ₹ 1200 Cr
- The company earlier would simply finance the projects but later shifted the scope and started owning the projects

How it unfolded

- IL&FS invested in projects with a gestation period of 10 to 15 years by borrowing for a period of 8 to 10 years and then would get the project refinanced. But in the recent years the banks stopped refinancing and the company was forced to borrow from the market by issuing CPs and debentures
- It all started in 2016 when the banks started reducing the issue of loans to the behemoth but the company borrowed money from the market on short duration debt instruments and on the other side it invested in long term assets. This led to a huge asset liability mismatch
- In August it defaulted on the payment of ₹ 1000 Cr that was issued by SIDBI, after which there were multiple defaults in the following weeks. After the company defaulted on repayments, SIDBI approached RBI
- It has also defaulted on Inter-Corporate Deposits
- The credit rating of debt instruments issued by IL&FS was rated at AAA (highest credit rating) till the end of august this year
- Since substantial part of its borrowing was in short term debt, it had a major impact on the NBFCs (some of the lenders had to sell their investments at discount in the market)
- The liquidity in the market was already tightening because of festival demand loans and advance taxes paid by the corporates, as a result of this the short term lending rates in the market increased
- To increase the liquidity RBI
    - Conducted OMO (Open Market Operations)
    - Further relaxed the norms under FALLCR (Facility to Avail Liquidity for Liquidity Coverage Ratio)
- SBI also has increased its asset buying target from NBFCs so as to increase the liquidity
- The total debt of the company for FY18 was ₹ 91091 Cr but the short term debt has increased form 9.9% of the total debt in FY14 to 15% of the total debt in FY18
- The government filed a petition at NCLT under section 241 and 242 of Companies Act which give NCLT powers to intervene in such situations. The NCLT has allowed government to take over the board of the IL&FS fearing a contagion effect. This will be the first time after 2009 (Satyam) that the government is rescuing a private company. Following this the government on 1st October appointed a new 6-member board to rescue the IL&FS, which has been headed by Mr Uday Kotak. The board held the first meeting on October 4th and is expected to provide the resolution by October 31

The gravity of the crisis

- It's not just an NBFC, it's a financial conglomerate as it has investments/businesses in various sectors/businesses (it is involved in building, operating and financing the infrastructure projects)
- More than 61% of the borrowings of the company are loans from financial institutions

- The commercial papers and debentures account for 3% of the total corporate debt market (2% and 1% respectively)
- The mutual funds have a total investment of ₹ 6000 (i.e. they hold debt of IL&FS)
- The total debt of IL&FS is presently pegged at over ₹ 90000 Cr
- Bloomberg has reported that IL&FS has a debt repayment obligation of $500 mn in the next 6 months
- Infrastructure investment will be hit (the Indian economy needs an investment to the tune of $1.5 tn in the next 10 years)
- Borrowing will become costly for the market players

Concerns

- Spill over or contagion effect - already the lending rates have gone up by 20 to 30 basis in the market. Further if the company is not rescued, then the NBFC investors either will have to mark down (reduce the value) their investments or write them off. This would be disastrous not only for these companies, it would also suddenly lead to lower demand for such securities in the market, which would once again push up the lending rates. It is expected that there will be a shortage of close to ₹ 1 lakh Cr in the system because of the investments (in the form of CPS and NCDs - Non Convertible Debentures) getting jammed up with IL&FS
- The mutual funds collectively are holding a debt of ₹ 6000 Cr of IL&FS are worried about their investments. If they do not realise it then it has to be written off
- The margins of NBFCs (Non-Banking Finance Companies) and HFCs (Housing Finance Companies) will lower and in cases of losses, they will have to sell stocks which will create volatility in the market
- This would definitely affect the shadow banking (this sector was attracting a lot of investors in the recent times and the credit growth rate was twice that of the banking sector; the instruments issued by these had an investment grade credit rating)
- It may hinder the investments in infrastructure investment/plans
- Revival is not easy as the whole structure of IL&FS is complicated (the board has recently stated that the number of entities under IL&FS are 348 rather than earlier expected number of 169)
- The credibility of the credit rating agencies has come into question. The instruments of the IL&FS company were in the investment grade and the NBFCs did not have any cause of concern till it was too late (though the NBFCs have an internal mechanism to act on such investments, they get triggered only when they are downgraded)
- Doubts over many of the infrastructure projects of the government as there would be need of huge financing
- The commercial paper market was picking up in India in the recent times and this would be a body blow for this market
- Corporate governance - what was the role of Board of Directors and why did they not blow the whistle earlier
- Will the people who headed the organization and pushed it into crisis be brought to book
- Is it illiquid (assets not easily/quickly converted into cash) or insolvent?

Way forward

- Bring in new investors by issuing equity
- Sell some of the assets. The company has already put its HQ in Mumbai along with 25 more assets on sale for many of which the buyers have shown the interest. It is expected that the sale of these assets

would bring down the debt by ₹ 30000 Cr (the concern with this is that the whole process of sale to be completed it would take around 18 months)

- Proposal to conduct rights issue
- Lessons learnt from the GFC have to be acted upon

India's Personal Financial Wealth

Context

- According to the report titled "The Global Wealth 2018 - Seizing The Analytics Advantage," from the Boston Consultancy Group (BCG) India's personal financial wealth, currently estimated to be about $3 trillion, is expected to grow to $5 trillion by 2022 making India the 11th wealthiest nation.

Categories

- Ultra-High Net Worth: wealth in excess of $100 million was categorized as ultra-high net worth,
    - 4,000 ultra-high net worth individuals in the country in 2017
- High Net Worth: Wealth in the range of $1 million and $100 million.
    - 87,000 high net worth individuals
- Affluent: An individual with wealth between $2,50,000 and $1 million.
    - There were 322,000 affluents

Details

- According to the report, India is currently the fifth largest Asian market in terms of number of affluent, high net worth and ultra-high net worth individuals.
- The report noted that India constitutes the second largest pool of wealth from emerging markets in the coming years, with $2.2 billion.
- The total number of such individuals was pegged at 4.13 lakh in 2017.
- The 70% investable wealth in the country includes listed equity, bonds, investment funds, currency and deposits, and other smaller asset classes, while
    - 30% non- investable wealth includes life insurance and pensions, unlisted equity and other equity.

Countries and its ranking

- The US leads the chart in terms of total personal wealth with $80 trillion in 2017, which is projected to touch $100 trillion by 2022.
- China is ranked second, with a total personal wealth of $21 trillion, which is expected to more than double to $43 trillion by 2022.

India International Silk Fair

- It is organised by the Indian Silk Export Promotion Council (ISEPC) at Pragati Maidan.
    - The Indian Silk Export Promotion Council (ISEPC) was set up in 1983 as a company not for profit under Companies Act duly sponsored by the Government of India in the Ministry of Textiles.
    - ISEPC works closely with the Government of India on policy formulation concerning silk sector and provides specialized services to the entrepreneurs enlarging global business opportunities for the silk industry in India.
- The fair will give a platform to exporters to display their products and to overseas buyers an opportunity to place orders and source their merchandize

- Artisans from Jammu & Kashmir and North East will showcase their unique products from their region which will be an added attraction for buyers.
- The IISF-2018 is expected to generate business of over USD 20 million for the small and medium enterprises (SMEs) engaged in producing silk and blended silk garments, fabrics, accessories and floor covering.

Stats

- India is the 2nd largest producer of silk in the world.
- The silk industry is agriculture based and labour intensive and provides gainful employment to around 8 million artisans and weavers in rural areas.

O-ring theory

- Also known as the O-ring model of economic development, this refers to the theory that even the smallest components of a complex production process must be performed properly if the end product of the process is to have any useful value.
- In other words, a mistake that creeps into even the smallest of tasks can cause the final product to possess absolutely no value to users.
- The O-ring theory derives its name from a 1986 incident in which the Challenger space shuttle was completely destroyed as a result of the failure of a simple gasket, or O-ring, to work properly.
- It was first proposed by American development economist Michael Kremer in 1993.

Reinvigorating Trade and Inclusive Growth

- It is released by the International Monetary Fund (IMF), World Bank and World Trade Organization.
- It reinforces the importance of trade in the global economy
- The publication emphasizes that trade policies should aim to build greater, more durable openness and encourage countries to reinvest in open, rules-based global trade.
- It collectively sought liberalization of the global service sector, asserting that the barriers to these services trade currently is roughly as high as those to trade in goods about a half century ago.

Road Accidents in India report

Context

- The Indian government has released the official statistics for road accidents, injuries and fatalities for the year 2017
- As per the latest data, in 2017, a total of 4,64,910 road accidents were reported in the country, claiming 1,47,913 lives and causing injuries to 4,70,975 persons, which translates into 405 deaths and 1,290 injuries each day from 1,274 accidents.
- This also means that 16 people are killed and another 53 are injured every hour on Indian roads.

States and its Stats

- The report further reveals that Tamil Nadu recorded the highest number of road accidents in 2017, but
- The number of people killed in road accident was the highest in the northern state of Uttar Pradesh.
- Major states that achieved significant reduction in road accidents and fatalities in 2017 were Tamil Nadu, Maharashtra, Gujarat and West Bengal.
- While Uttar Pradesh and Bihar were the worst performers, recording large increase in the number of road accidents and fatalities in 2017 as compared to 2016.

Over speeding - No. 1 cause for road fatalities

- Government data showed over speeding was the single biggest reason for accidents, and together with driving in the wrong side of the road, accounted for 73.1% of all road deaths. In other words, these two violations caused three in four deaths due to accidents in 2017; they also resulted in 76.7% of total accidents and almost 80% of all road injuries.
- Violation of other rules such as drunk driving, red light jumping and use of mobile phones together accounted for just 6.2% accidents and 6.5% deaths.
- Road accidents which do not involve traffic rules violation or violation not known (such as hit-and-run cases) constitute 17.1 per cent and accounted for 20.3 per cent of the total fatality or every fifth life lost on the roads.

Justice K.S. Radhakrishnan Committee

- This is one of the interventions led by the Supreme Court under former Supreme Court judge, K.S. Radhakrishnan
- The Justice Radhakrishnan panel would fix the responsibility and functions of the Road Safety councils.
- These councils would periodically review the laws and take appropriate remedial steps wherever necessary

Concerns

- There is lack of Professionalism and expertise, so this should extend to public infrastructure: the design of roads, their quality and maintenance, and the safety of public transport, among others.
- The Road Safety Councils at the all-India and State levels have simply not been able to change the dismal record, and the police forces lack the training and motivation for professional enforcement.
- The dearth of progress in reducing traffic injuries is glaring, given that the Supreme Court is seized of the issue and has been issuing periodic directions in a public interest petition with the assistance of the Justice K.S. Radhakrishnan Committee constituted by the Centre.

The way forward to a safer India

The government has already undertaken a number of steps and is putting in efforts to reduce road accidents, injuries and fatalities in the country.

- It has implemented measures that was outlined in the National Road Safety Policy, and has formulated a multi-pronged road safety strategy based on 4 Es: Education, Engineering (both of roads and vehicles), Enforcement and Emergency Care.
- Greater attention is being paid to the design and safety standards of vehicles but there is urgent need is to fix accountability in government.

SDG progress to be monitored by panel

Context

- The Union Cabinet gave its nod for the constitution of a high-level steering committee to review and monitor the progress on sustainable developmental goals (SDGs)

Details

- The Cabinet decision to constitute the steering committee on SDGs would formalise the monitoring of the work progress with the involvement of the chief statistician, besides other officials.

- The panel would also decide if there was a need to "refine" indicators by reviewing the National Indicator Framework (NIF) periodically
- The steering committee would recommend measures to "mainstream" SDGs into ongoing national policies, programmes and strategic action plans to address the developmental challenges.
- They would scientifically measure the outcomes of the policies to achieve the targets under different SDGs which would be the backbone for monitoring of SDGs at the national and State levels.
- Based on statistical indicators, the MoSPI would produce national reports on implementation of the SDGs.

Currently, the NITI Aayog coordinates work of various departments in taking steps to achieve the targets set for the millennial sustainable development goals spearheaded by the United Nations

Shahi litchi from Bihar gets geographical indication tag

- It is famous for its sweet, juicy, unique flavour and aroma
- The fruit is mostly grown in Muzaffarpur and its neighbouring districts of East Champaran, Vaishali, Samastipur and Begusarai.
- The fruit is the fourth product from the state, after Jardalu mango, Katarni rice and Magahi paan, to receive the status
- The tag will improve demand for the fruit and reduce the fear of fake and poor quality litchis
- Bihar produces 40 per cent of the litchi grown in the country on 38 per cent of the area.

Train 18

Context

- India's first engine-less semi-high speed train - "Train 18" - was rolled out by the Integral Coach Factory (ICF) here and will eventually replace the Shatabdi Express for inter-city travel.

Details

- It has been designed for a maximum operating speed of 160 kmph as against 130 kmph of the Shatabdi.
    - The 16-coach train will cut journey time by 15 per cent compared to the 30-year old Shatabdi.
- The 16-coach semi-high speed 'trainset' built at a cost of Rs 100 crore per rake with 80 per cent Indian component.
    - The first trainset will have a few imported components such as French-made seats, brakes and couplers from Germany, along with a Czech-made door system

Unique Features

- It has diffused lighting, automatic doors and footsteps besides GPS-based passenger information system.
    - The doors of Train 18 would open only after the train stops to ensure safety of passengers. The train would start only after all doors are shut.
- It has on-board Wi-Fi, CCTV cameras ,'touch-free' bio-vacuum toilets
- Train-18 has two driving trailer coaches with aerodynamic driver's cab (nose cone) on both the ends which will enable quicker turn-around time at destinations. Every alternative coach is motorized, to ensure even distribution of power and faster acceleration/deceleration.

Future Plans

- With Train 18 already set to go for trials, the railways will now turn its focus on another Project - Train 20 - the next generation aluminium-bodied sleeper class trains that will replace the Rajdhani Express trains on the network and is expected to be rolled out by 2020.

Udyam Abhilasha

Context

- Small Industries Development Bank of India (SIDBI), had launched a National Level Entrepreneurship Awareness Campaign, Udyam Abhilasha in 115 Aspirational Districts identified by NITI Aayog in 28 States and reaching to around 15,000 youth.

Details

- The campaign would create and strengthen cadre of more than 800 trainers to provide entrepreneurship training to the aspiring youths across these districts thus encouraging them to enter the admired segment of entrepreneurs.
- SIDBI has partnered with CSC e-Governance Services India Limited, a Special Purpose Vehicle, (CSC SPV) set up by the Ministry of Electronics & IT, Govt. of India for implementing the campaign through their CSCs.

The objectives of the missionary campaign includes:-

- to inspire rural youth in aspirational districts to be entrepreneurs by assisting them to set up their own enterprise,
- to impart trainings through digital medium across the country,
- to create business opportunities for CSC Village Level entrepreneurs (VLEs),
- to focus on women aspirants in these aspirational districts to encourage women entrepreneurship and
- To assist participants to become bankable and avail credit facility from banks to set up their own enterprise.

UN model law for cross-border insolvency

Context

- The Insolvency Law Committee (ILC), tasked with suggesting amendments to the Insolvency and Bankruptcy Code of India, has recommended that India adopt the United Nations' model to handle cross-border insolvency cases.
- The ILC has recommended the adoption of the United Nations Commission on International Trade Law (UNCITRAL) Model Law of Cross Border Insolvency, 1997, as it provides for a comprehensive framework to deal with cross-border insolvency issues.

UNCITRAL

- The UNCITRAL Model Law has been adopted in 44 countries and, therefore, forms part of international best practices in dealing with cross border insolvency issues
- Established in 1966, UNCITRAL is a subsidiary body of the General Assembly of the UN with the general mandate to further the progressive harmonization and unification of the law of international trade
    - As per UNCITRAL, 'harmonization' and 'unification' of the law of international trade refers to the process through which the law facilitating international commerce is created and adopted.
    - "Harmonization may conceptually be thought of as the process through which domestic laws may be modified to enhance predictability in cross-border commercial transactions.

    - "Unification may be seen as the adoption by States of common legal standard governing particular aspects of international business transactions.
- The model law deals with four major principles of cross-border insolvency, including direct access to foreign insolvency professionals and foreign creditors to participate in or commence domestic insolvency proceedings against a defaulting debtor.
- Another principle pertains to coordination between two or more concurrent insolvency proceedings in different countries.
- The main proceeding is determined by the concept of Centre of Main Interest (COMI).

Details

- The committee has recommended a few carve-outs to ensure that there is no inconsistency between the domestic insolvency framework and the proposed cross border insolvency framework.
- The necessity of having a cross-border insolvency framework under the Insolvency and Bankruptcy Code arises from the fact that many Indian companies have a global footprint and many foreign companies have a presence in multiple countries, including India

Significance

- The advantages of the model law are the precedence given to domestic proceedings and protection of public interest.
- The other advantages include greater confidence generation among foreign investors, adequate flexibility for seamless integration with the domestic insolvency law and a robust mechanism for international cooperation

Universities and patents

Introduction

- In its biggest push to create entrepreneurial universities, the University Grants Commission (UGC) has now asked all universities in India to set up Intellectual Property (IP) Centers.
- The new policy has pushed universities to file more patents.

Merits

- Universities and patents benefit each other.
- Patents help universities to improve their ranking, establish an innovation ecosystem, incubate knowledge-based start-ups, earn additional revenue and measure research activity.
- The number of patents applied for, granted and commercialized by universities and institutes is factored in in the National Institutional Ranking Framework (NIRF) rankings
- The National Assessment and Accreditation Council, awarding up to 24 points to an institute which sets up an innovation ecosystem and has a facility for identifying and promoting IPRs
- The All India Council for Technical Education (AICTE) model curriculum for its member institutions lays emphasis on the need for IPR education in technical institutes.

Concerns

- As universities line up to set up these centres, they will face a strange human resources problem: despite the policy push to have more IP, we simply do not have enough IP professionals in the country.
- The lack of IP professionals to teach IP was one of the reasons the IP courses are not mandated in all technical institutes.

- Online courses on IPR are available on the National Programme on Technology Enhanced Learning platform. Though thousands register every year, much needs to be done to build capacity on IP in universities. We need to focus on careers rather than courses.
- To address this dearth the central Govt has come up with Patent exams

Measures taken by Govt

- India witnessed significant changes in IPRs since the introduction of the National IPR Policy in 2016.
- The grants rates at the Patent Office have increased: in 2017-2018, there was a 32% increase in the number of patents granted compared to the earlier year.
- The Patent Office increased its workforce with the inclusion of 459 new examiners and is on the lookout for more.
- The timeline for filing responses to official objections for patents has been reduced by half.

Patent exam

- The Central government conducted the competitive examination to test proficiency in patent law, a type of intellectual property right (IPR), after an interruption of two years.
- Any Indian citizen with a bachelor's degree in science or technology can take the examination. Upon clearing it the person is entitled to practise before the Patent Office as a registered patent agent.
- Qualifying the exam allows science graduates to draft, file and procure patents from the Patent Office on behalf of inventors.
- The last time when the Patent Office conducted the patent agent exam, in 2016, around 2,600 candidates took it, a paltry number if one looks at the ambitious goals set by the IPR Policy.
- Despite the infrequent manner in which the examination has been conducted, the private sector does give good weightage to the examination as it is considered to be the de facto IP qualification today.

Way forward

- The ambitious goal set by India's IPR Policy will be realized only when the examination becomes the foundation for making a career in IPR.
- In a dynamic field such as intellectual property, in order to create a band of qualified IP professionals there should be a push towards post-qualification continuous education as well.
- To achieve this, the format, membership, syllabus and the frequency of the patent agent examination will need to be addressed.
- This will not only increase the number and quality of IP professionals in the country but also become a new career choice for graduates with a degree in science and technology.

Women of India Organic Festival

Context

- The Ministry of Women and Child Development is organizing the 5th edition of the Women of India Organic Festival at Indira Gandhi National Centre for the Arts

Details

- It is Organized on an annual basis since 2015
- It is intended to highlight the health and environmental advantages of organic good
- This is aimed to boost organic culture and promote Women Organic Farmers and Entrepreneurs.

- It will boost rural women's local communities and economy by creating jobs and keeping farmers thriving in addition to spreading awareness about the benefits of organic products.
- Overall, the income and savings of a farmer using exclusively organic methods in agriculture increases by over 50% since there is no investment in costly chemical pesticides, fertilizers, and preservatives.

World Agriculture Prize

Context

- Renowned agricultural scientist and the chief architect of the green revolution in India, MS Swaminathan, was awarded the first World Agriculture Prize for his contributions to Indian agriculture

Details

- It is instituted by the nongovernmental Indian Council of Food and Agriculture (ICFA)
- It carries prize money of $1,00,000 (₹73,45,500),

M.S. Swaminathan Research Foundation (MSSRF)

- He is also founder of the M.S. Swaminathan Research Foundation (MSSRF)
- The M.S. Swaminathan Junior Research Fellowship is to be awarded from 2019 onwards
- The fellowship would help promote linkages between agriculture, nutrition and health, through a 'Farming Systems for Nutrition' programme.
- The five areas considered for the fellowship are: the UN Sustainable Development Goal 2 of Zero Hunger, Farming System for Nutrition (FSN), genetic garden of bio-fortified crops and halophytes, bio-valley for curative and culinary diversity and eco-technologies for eco-enterprises

World Egg Day

- The Department of Animal Husbandry, Dairying and Fisheries, Government of India organized "World Egg Day".
- Farmers, members of poultry associations, research scholars, administrators and around 700 participants including poultry farmers attended the event.
- International Egg Commission has declared the second Friday of October every year as World Egg Day. This is celebrated in countries all around the world, and is a unique opportunity to help raise awareness of the nutritional benefits of eggs.

Background:

- India is the third highest producer of eggs in the world, but the per capita availability is around 69 eggs per person per year. Egg is a wholesome, nutritious food with high nutrient density. It is a high value protein and provides a wide variety of other nutrients like vitamins, essential amino acids and minerals etc. crucial for growth and good health.

World Food Day

- World Food Day is a day of action dedicated to tackling global hunger.
- The theme of World Food Day 2018 is 'Our actions are our future – A zero hunger world by 2030 is possible'.
- The Indian Council of Agricultural Research takes action to remove the suffering from hunger and ensure food security and a nutritious diet for all. The focus of the Government of India is that food is a

basic need and fundamental human right. Zero hunger could save the lives of 301 million a year, and can help build a safer, more prosperous world for everyone.

Aim:

- The Government of India aims to transform India's agricultural sector to contribute to the achievements of global environmental objectives.
- A new project has been launched in association with FAO, India office known as 'Green-agriculture: transforming Indian agriculture for global environmental benefits and the conservation of critical biodiversity and forest landscapes'.

Initiatives taken:

- The Pradhan Mantri Kisan Sampada Yojana, a national level programme, was launched to create world-class food processing infrastructure. This is expected to leverage investment of five billion US dollars, benefit two million farmers and generate more than half a million jobs over the next two years."
- Mega Food Parks aim to link agro-processing clusters with key production centres. This will offer immense value proposition in crops such as potato, pineapple, oranges and apples. Farmers groups are being encouraged to set up units in these parks, thereby reducing wastage and transportation costs, and creating new jobs."

World Steel Association

- It is a non-profit organisation with its headquarters in Brussels, Belgium and a second office in Beijing, China, whose purpose is to promote steel and the steel industry to customers, the industry, media and the general public
- The association represents over 160 steel producers (including 9 of the world's 10 largest steel companies), national and regional steel industry associations and steel research institutes.
- World Steel Association members represent around 85% of world steel production.

Context

- Global body World Steel Association (world steel) has elected JSW Steel CMD Sajjan Jindal as its treasurer.

Avoiding the currency basket case

Background

- The Indian rupee was once a multilateral currency, its usage prevalent across the Indian Ocean in places as varied as Java, Borneo, Macau, Muscat, Basra and Zanzibar.
- The historic dhow trade ensured that the Gulf had a familiarity with the rupee for over five centuries, with Oman utilising the 'Gulf rupee' till 1970.
- The accession of George V to the throne in 1911, enshrining his rule of the British Raj, led to the issuance of a new rupee coin.
- The colonial rupee leveraged the Mughal rupee's popularity, facilitated by trading communities, migration and the Raj's hegemony. The annexation of Sindh, Ceylon and Burma further encouraged the primacy of the rupee in these areas.
- Even after Independence, Dubai and other Gulf states were using RBI-minted Gulf rupees until 1966

Drop in usage of Rupee

- Only the devaluation of the Indian rupee in 1966, after the 1965 war, led to such nations switching to their own currencies.
- Now, only Nepal and Bhutan regularly conduct bilateral trade with India in rupees.

India's rupee revaluation

- In 1947, the rupee-dollar rate was at Rs. 3.30.
- The devaluation in 1966 raised it to Rs. 7.50, reaching Rs. 32.4 by 1995.
- This decline was precipitated by a variety of factors –
    - wars with Pakistan and China
    - the adoption of Five Year Plans requiring foreign loans
    - Political instability and the Oil Price Shock of 1973.
- Of late, the rupee has been declining given higher oil prices and FII outflows from stocks and bonds.
- The ongoing U.S.-China trade war, Iran sanctions and further upward movement in oil prices will continue to test the rupee's valuation.

Solutions in hands

Reserve Bank of India and the Ministry of Finance do have a number of options for stabilization, including

- Overtly intervening in the forex market
- Selling non-resident Indian bonds (as last done in 2013)
    - In 2013, when the rupee witnessed a fall of about 25% in just four months following the U.S. Federal Reserve's decision to taper down its bond-purchase programme, the RBI was able to collect more than $30 billion worth of foreign capital.
    - NRI bonds were also issued in 1998 and 2000 to help curb the slide of the rupee.
- Conducting a sovereign bond issuance.
- In addition, the rupee's dependency on the U.S. dollar must be reduced
- India should consider formalizing the rupee payment mechanism with friendly countries such as Russia, with a focus on reducing its overall current account deficit.
- We must continue to guard against fiscal profligacy (government policy of spending more than its tax revenues), with any slippage viewed negatively by the currency markets, further encouraging investors to flee Indian markets.
- Industrial growth should be a priority; without having goods to sell, rupee swaps (say with Iran) will be difficult to institutionalize. A lower rupee is a recipe for a higher import burden, spiralling eventually into a currency crisis.
- The formalization of the Indian economy, by deterring black money transactions in the rupee

India's black money strategy should consider four pillars —

- it should encourage tax rate rationalization,
    - Tax rate rationalization, with lower tax rates as an end goal, would increase the tax base and increase compliance with tax returns.
- reform vulnerable sectors,
    - Administrative agreements with countries like the U.K. and Switzerland which can offer mutual tax sharing should be encouraged.
    - It is important to create a remittance database detailing company transfers out and NGO transfers into India, all reporting to the Financial Intelligence Unit (FIU).

- Credible deterrence.
    - The Direct Tax Administration's Directorate of Criminal Investigation should be provided the right IT training, infrastructure and funding to become an effective deterrent
    - The audit cycles for income tax, service tax and excise tax departments should be aligned, helping the Large Taxpayer Unit (LTU) become more effective, increasing the scope of simultaneous scrutiny and examination.
- support a cashless economy and create effective

Internationalization of the rupee

The internationalization of the rupee is a worthwhile goal to aim for.

- While the Chinese yuan is increasingly being positioned for an alternative reserve currency through a variety of multilateral trades, institutions (the Belt and Road Initiative, the Asian Infrastructure Investment Bank) and swaps, the Indian rupee remains woefully behind in internalization.
- China campaigned hard for the inclusion of its currency in IMF's benchmark currency basket in 2015, introducing a range of reforms to ensure that the yuan was considered as "freely usable".
- The RBI, meanwhile, has adopted a gradualist approach –
    - allowing companies to raise rupee debt offshore,
    - enabling the creation of "masala bonds" and
    - allowing foreigners to invest in rupee debt onshore;
- The rupee has transformed from a largely non-convertible pegged currency before 1991 to a managed float. The rupee is currently not even in the top 10 traded currencies.

Way forward Conditions

- First, the issuing country must have sufficient scale, both in terms of nominal gross domestic product and volume of international transactions.
- Second, the value of the currency must be stable over time. A currency is considered stable when the general level of prices does not vary too much.
    - Stability has multiple aspects: macroeconomic, financial and political.
- Third, the currency must be liquid.
    - A currency is liquid if significant quantities of assets can be bought and sold in the currency, without noticeably affecting its price.

If India is able to accomplish and meet these criteria we would be able to work on meeting the goal of internationalization

Top 100 Bank Frauds

Context

- The Central Vigilance Commission (CVC) released a first-of-its-kind analysis of the top 100 banking frauds and has shared its findings with the Reserve Bank of India (RBI) and department of financial services to plug loopholes observed by the Commission.

Details

- In order to make the report more comprehensive, the top 100 Bank Frauds have been classified into 13 sectors, namely gems and jewellery, manufacturing / industry, agro, media, aviation, service / project, discounting of cheques, trading, Information Technology, export business, fixed deposits, demand-loan, and Letter of Comfort

- The analysis of the top bank frauds included in the report mainly focuses on modus operandi, amount of money involved, type of lending, anomalies observed, loopholes that facilitated the fraud,
- The study focused on the methods used by fraudsters, and the loopholes noticed by the CVC, and suggested systematic improvements to avoid such frauds.

Recommendation

- The measures suggested include strengthening of Standard Operating Procedures, monitoring system and also highlighting the role of controlling offices, so as examine the aspect of quality of business

SIAL Paris exhibition

Context:

- Forty-five Indian companies are participating in the SIAL Paris exhibition – the largest international market place for food service professionals.
- Trade Promotion Council of India (TPCI) has inaugurated a special Indian pavilion in the ongoing mega exhibition for the participating companies.

About:

- SIAL Paris is the leading exhibition of food service products with more than 7020 French and international exhibitors from 109 countries displaying their foodstuffs, ranging from ingredients to processed products, including fresh produce.
- The exhibition is one of the most important get-togethers of buyers and sellers interested in dairy products, meat, fresh fruits and vegetables, tinned and preserved foods, semi-processed food products, organic products, health products and food supplements, seafood, and ready-prepared dishes, pet and poultry products and equipment and services. Indian companies are getting good inquiries from the buyers who have converged from all over Europe.

Background:

- SIAL Paris is held every two years, and is famous for culinary demonstrations by famous chefs every day.
- This is a unique culinary show which stage SIAL Paris exhibitors' products on the basis of current topics and trends: locavore cooking, fresh attitude, trends and textures, besides live cuisine lessons.
- Buyers throng this exhibition to discover fresh produce and raw supplies and Indian companies are making their mark felt through their products and cuisine.

India set to be third largest aviation market

Context

- According to International Air Transport Association (IATA) India which is currently at seventh position is expected to be among the top three countries by 2024 in the aviation market globally

Details

- In its 20-year forecast for the aviation industry, IATA says that air passenger numbers worldwide could double to 8.2 billion in 2037.
- The biggest contribution in this growth will come from the Asia-Pacific region, which will account for half the total number of new passengers over the next 20 years.
    - The Asia-Pacific region is expected to see the fastest growth at the rate of 4.8%, followed by Africa (4.6%) and west Asia (4.4%).
- China will climb up one spot to displace US as the world's largest aviation market in the mid-2020s,

- India will take the third place by surpassing the U.K. around 2024
- Indonesia, likely to be the fourth largest by 2030 from its current ranking of 10th largest aviation market.

Power politics at play (Electricity/Power Infrastructure)

- The Central government has proposed a set of changes to the Electricity Act 2003.
- This development takes place just a few months before the next general election.
- The proposed amendments seek to enable a market transformation in electricity.
- It is important to note that the link between political power and electrical power is widely known. Further, it promises important political currency.

What does this bill aim to do?

- The changes to the Electricity Act 2003 are intended to increase reliability and reduce risk in the power sector.
- In particular, the problem of failing on power purchase agreements (PPAs) is being taken up.
- It is important to note that a power purchase agreements (PPA) is a contract between the one who generates electricity and one which is looking to purchase it.
- Further, power purchase agreements (PPAs) are sometimes broken or renegotiated by distribution companies. These distribution companies are known as discoms.
- This has led to changes in the cash flow of power plants, rendering them unprofitable.
- In a few cases, this has led to investments in generation turning into non-performing assets.
- This is, in turn, contributing to the ongoing bad loans crisis in public sector banks.
- It is important to note that in India, consumers are not often charged the amount that their power actually costs.

A Quick look at some of the Proposed Amendments:

- The draft amendments suggest penalties for failing to honour PPAs.
- It prescribes up to Rs 10 million a day, and the suspension or even cancellation of a licence. It is also proposed that cross subsidization of power be phased out.

What is Cross-subsidization?

- Cross-subsidization refers to discoms charging higher prices from certain users to make up for under-charging others.
- For example: Cross subsidies of household consumers by industrial purchasers of power

Editorial Analysis:

- It is important to note that historically, there has been a scarce expenditure of political capital on this issue.
- Further, bringing in competition and choice in supply for the final consumer has long been an aim of electricity reform and remains central to these amendments.
- The central idea here is that while a single public utility will run the wires through which electricity flows, multiple supply licensees (both public and private) will be allowed to compete for consumers.
- The intent behind this is that the discipline of competing for customers will lead to improved supply and lower bills. However, the global track record on this approach is far from definitive.

Possible Negatives:

- As a consequence to this initiative, India could have an electricity distribution sector with pockets of competition for wealthy consumers in a sea of monopoly inhabited by the poorest.
- Further, private suppliers could cherry-pick profitable locations and consumers, while the state-owned incumbent supplier will be left with the obligation to serve low-paying consumers.

Some more Specifics:

- Some of the concerns expressed above can be overcome. This can be done if there were a mechanism to support the second group.
- This currently happens through 'cross-subsidy' from wealthier customers. However, the idea of 'cross-subsidy' as well is being changed under the amendments.
- This leaves only the possibility of direct support from States. If these transfers are not forthcoming, or late, the cash-starved incumbent supplier will be locked into a cycle of poor quality of service for its customers who have no 'exit' option, leading to more bill evasion, and further financial deterioration.
- It is important to note that the proposed legislation makes subsidy to the poor the collective responsibility of the States and the Centre.
- So far this has only been the responsibility of each State. Notably, the Centre may have access to enhanced tax revenues from electricity because it stands to gain from additional tax revenue from profitable new wires companies and private suppliers. Thus, as a consequence, the Centre could become a new fulcrum of redistribution from wealthy areas in wealthy States, to needy customers that are concentrated in a few States.
- There is another side to the coin that needs to be discussed as well. This would provide greater control to the Centre and limit the States' and regional political parties' capability to make electoral use of electricity pricing.
- Thus, the politics of power prices will shift from sub-national to national electoral politics.

A Look at the Indian Context:

- It is important to note that India has among the highest electricity tariffs for industry. The costs borne by industries, bears the burden of low-performance and losses among other consumers, impacting their global competitiveness.
- However, this shift could be highly disruptive if the profit-making side is allowed to flee, without devising a transition pathway for the loss-making side of electricity.
- It is important to note that subsidies will not be allowed across consumer categories like industry and agriculture, but will be allowed across consumption categories. Thus, arising from this, big consumers can subsidies small ones.
- Further, big industrial consumers will see no effective change, although small business consumers will escape payment of subsidy.
- It is important to note that the whole idea of making pricing system fairer, more rational, and more predictable is crucial to develop a sustainable power sector.
- The central idea behind the Bill is essentially to end cross subsidies, which would, in turn, rationalize power consumption and pricing.
- It will force an increase in the tariffs that are charged to lower-end households and to farmers.

A Few Open Questions:

- Some open questions arise. For example: Where is support for poorer customers going to come from? The amendment recognizes the need to subsidies the poor, but mandates this be done through direct benefit transfers. However, identifying and targeting beneficiaries remains a challenge.
- Moreover, with these changes, the mechanism of support for poorer customers will shift from the electricity customer to the taxpayer. Cross-subsidies are certainly distorting.
- However, the solution requires the electricity sector to assert its claims for support in competition.

A Centralizing Tendency?

- The amendments have a few centralizing dimensions.
- For example: the amendment proposes a re-formulation of the selection committee for State regulators, from a majority of State representatives to a majority of Central representatives.
- The Centre will also gain more oversight on capacity addition. This oversight on capacity addition will be gained through the requirement of detailed project report submission to the Central Electricity Authority.
- It is important to note that although there is no doubt that State performance has been poor on both fronts. But experts believe that the amendments reflect a clear choice of solution: re-direct responsibility to the Centre instead of fixing the process in the States.
- On a positive side, the amendments include many other provisions, most notably around making the Act more up to date with regard to renewable energy, which is a worthy objective.
- However, in terms of the big questions, it places its bets on more competition, subsidy reform, a steering role for the Centre and throwing a lifeline to generators.

Concluding Remarks:

- There is no doubt that the status quo is unsatisfactory.
- Currently, India's electricity sector remains fraught with problems.
- In conclusion, disruptive change in Indian electricity may be needed, even inevitable. But the amendments risk placing the cost of disruption on the backs of the poorest, and shifts the potential for remedial measures to the hands of the Centre, rather than the States.

Migrant workers in India: A case study of Gujarat

Context: why in news?

- The recent attacks on migrant labour after an incident in Gujarat late last month, involving the sexual assault of a 14-month-old girl, allegedly by a migrant labourer from Bihar, appears to be have been a consequence of resentment.
- Many migrant workers have now rushed out to their home States out of fear despite several local people having been taken into custody on the charge of inciting violence against migrant workers.
- There have been reports of an estimated 60,000 to more than a lakh workers leaving the State of Gujarat.

Gujarat: A hub for migration

- Gujarat is one of the top States in India that receive migrant workers, largely temporary and seasonal, on a large scale.
- In Gujarat, they work in unskilled or semi-skilled jobs in a wide range of activities such as in agriculture, brick kilns and construction work, salt pans and domestic work, petty services and trades such as food

and street vending as well as in textiles and garments, embroidery and diamond cutting and polishing, small engineering and electronics and also small and big factories.

- These workers are from Rajasthan, Madhya Pradesh, and Maharashtra and even from as far as Bihar, Uttar Pradesh, Andhra Pradesh, Odisha, Jharkhand, Chhattisgarh, Assam and Karnataka.
- Employers send contractors to distant unexplored places to gather labour at the lowest possible wage rate. For example, a new township in Gujarat being promoted by a large industrialist is to be built with workers from Assam.

What are the problems faced by migrant workers in Gujarat?

- Surprisingly, the Gujarat government has no data on/estimates of migrant workers coming to Gujarat. Informally, the figures are estimated to be between 40 lakh to one crore.
- Segmenting the labour market and creating a separate labour market for migrant workers — who are easy to exploit — has been a common strategy of employers across India.

Conditions of work

- The pathetic conditions migrant workers face have been widely documented. They earn low wages, work very long hours without any overtime benefits, and are almost without any leave or social protection.
- Lakhs of unskilled and migrant workers live on worksites in makeshift huts (usually made of tin sheets) or on roads, slums and in illegal settlements not served by municipalities.
- They are neither able to save much to improve their conditions back in their home States nor save enough to live comfortably in Gujarat.
- They go back home only once or twice to celebrate festivals. Semi-skilled workers with some education and skills such as those in diamond cutting and polishing units, power looms and factories get slightly higher wages and earn some leave.
- However, these workers are also exploited in multiple ways and are mostly unprotected. Factory owners, employers and traders are only too happy with such a situation as they earn huge profits from wage labour exploitation.

Insider versus Outsider

- Local workers resent the presence of migrant workers who they feel take away their jobs in factories and other places on account of being cheap labour. Those who have stayed back now live under constant fear.

Impact of exodus of workers

- The exodus is cause for concern as it is bound to impact Gujarat's growth and create resentment among factory owners and other employers, especially at a time when the general election is drawing close.
- This would also avert a crisis in the migrants' home States which would have to cope with an army of the unemployed.
- States are indifferent to the wellbeing of migrant workers and their rights.
- The Gujarat government wants normalcy to return so that migrant workers can toil for the prosperity of Gujarat, while the Bihar government, which is at its end trying to manage the sudden inflow of returning migrants, wants migration to Gujarat to continue as before.
- Uttar Pradesh has lauded the Gujarat government for handling the situation well.

Labour laws in India

- Under the Inter-State Migrant Workmen Act and other labour laws (for unorganized workers), migrant workers in Gujarat are legally entitled to all their basic labour rights.
- These include minimum wages, regular wage payment, regular working hours and overtime payment, and decent working and living conditions which include taking care of the health and education of their children.
- Under the same Act, the governments of the States from where migrant workforce originate are expected to issue licenses to contractors who take workers away, register such workers and also monitor their working and living conditions in other States.
- But most State governments remain indifferent to these laws. Gujarat has taken a few steps but these are far from adequate.
- In the political sphere, there has been hardly any mention about protecting the legal rights of migrant workers in India.
- The political impulse has been to maintain status quo — the continuation of the situation where migrant workers are exploited.

Preference to the locals: The case of Gujarat

- The Gujarat government passed a rule in the 1990s making it mandatory for industries and employers in Gujarat to give 85% of jobs to local people.
- This rule was never really implemented in reality, but watered down by the State government in its subsequent industrial policies, as new and large investors coming to the State did not like any such restrictions.
- Now there is a move in the State to introduce a law for industries and investors in Gujarat which reserves 80% of labour jobs for State domiciles and at least 25% for local workers.
- But those behind the idea are perhaps fully aware of the futility of such a move. As long as there are huge surpluses from the labour of migrant workers, employers will have no incentive in hiring local workers.

A way out

- In the end, the real solution to this issue would be to enforce all relevant labour laws for migrant workers so that segmentation of the labour market becomes weak, and workers (local and migrant) get a fair and equal deal in the labour market.
- This will also weaken unfair competition between local and migrant labour and enable migrant workers either to settle down in the place of destination or to go back home and make a good living there.

Railways Tragedy: Dussehra celebrations at Amritsar's Dhobi Ghat

Context: What happened?

- Dussehra turned into a tragedy as nearly 60 were killed and several injured after two trains mowed down around 150 people who stood on the railway tracks watching the effigy of burning Ravana near Amritsar.
- The injured were admitted to different hospitals in the city. As the effigy was lit and fireworks went off, a section of the crowd started retreating towards the tracks where a large number of people were already standing to watch the event.

- According to estimates, around 300 spectators were present at the Dhobi Ghat ground, which is almost a couple of kilometers away from the Amritsar railway station.

Background: How did the disaster occur?

- Dussehra celebrations at Amritsar's Dhobi Ghat have been a four-decade-old affair. Hundreds throng the place to see the fireworks as the effigy of Ravana is set on fire, celebrating the victory of good over evil.
- There was no complaint from the Indian Railways or locals over the choice of venue until Friday when train accident took place, killing 61 people.
- While the Dussehra revelers stood on the ground, witnessing the symbolic victory of good over evil in the fall of Ravana's effigy, train no. 74643 Jalandhar-Amritsar DMU ran over those, who chose to come on the tracks to get a better view of the fireworks.
- Before the survivors could grasp a sense of what had happened, a second train- Amritsar-Howrah Express sped past the railway tracks mowing down people who had jumped on the second set of tracks to escape the incoming disaster.
- Most of the people who attended the celebrations were migrant labourers from Uttar Pradesh and Bihar who settled in Punjab for earning a livelihood, dabbling in small-time occupations like sanitary workers, wood polish workers, gardeners, painters among others.

What's wrong with the venue?

- Organizing the event at the small triangular ground with just two gates—one opening on the main road and the other facing the railway tracks, besides the open dias at one corner that doubled up as a platform for the Dussehra celebrations—was always a risky proposition.

Was it the Organizers' fault?

- Organizers did not care to seek a written permission from either the district administration or the municipal corporation.
- There was no prior arrangement to deal with any untoward incident. This time it was no different. The public and the administration knew about the celebrations, but no one cared to find out if adequate safety measures were taken.

Who else is responsible?

- In the aftermath of the disaster, there is an effort to pin responsibility on agencies and individuals.
- The disaster at Amritsar is a reminder that government departments have not yet taken official protocols for safety at mass gatherings seriously.
- It is the basic failure of the district administration and the police, which should have ensured law and order.
- Even after getting a No-Objection-Certificate from police, there was no effort by the police in controlling the law and order.
- The Municipal Corporation in Amritsar has tried to distance itself claiming that its permission was not sought.
- The magisterial inquiry ordered by the Punjab government should examine the actions of the revenue authorities and the police in organizing the event, and whether rules were ignored to favour the organizers who claimed proximity to some politicians.

To what extent is the Railways responsible?

- Indian Railways has 63,000km of railway track and there is no surveillance system on tracks. If a track is laid, it is railways' property and not public property.
- If any person comes on tracks, it amounts to trespassing. Under the Railways' rules, people who have been injured were trespassers and can be fined and punished.

Religious festivals in India: Recent tragedies

- Major religious festivals in India are often overshadowed by deadly incidents such as stampedes and fires, ranging from the terrible toll of 249 deaths at the Chamunda Devi temple stampede in Jodhpur in 2008, to the railway station stampede during the Kumbh Mela at Allahabad five years later in which 36 people died.

Way Forward: Issues to be addressed in mass gatherings

- There is a serious deficit of common spaces in cities, towns and villages to conduct spectacular events safely. This is incongruous in a populous country with a tradition of festivals and cultural gatherings.
- There should be a transformation of the way such events are organized, with a lead agency in each State and district empowered to issue instructions, and in turn be accountable for public safety.
- The National Disaster Management Authority has created a guide for State governments and local bodies, laying down a clear protocol to be followed for mass gatherings and festivals.
- Whether this was followed by the Amritsar authorities in the planning of the Dasara celebrations is one of the questions that must be addressed.
- The Punjab government says it will draw up guidelines for the future. At Amritsar, trespass on the track was the prime reason for the accident.
- A campaign to educate the public that railway tracks cannot be treated as commons, and vigorous enforcement, will reduce the probability of such incidents.
- The Railways must identify hazard spots for train movement in heavily built-up areas and prevent trespass by barricading them.

3. INTERNATIONAL RELATIONS

Agalega Project in Mauritius by India

- Agaléga are **two outer islands of Mauritius**
- Agalega is more than 1,000 km north of Mauritius

Background

- In 2015 both countries signed an agreement that allows India to "develop infrastructure" on the islands.
- India had signed a MoU for the "improvement in sea and air transportation facilities" at Agalega Island.
- These facilities will enhance the capabilities of the Mauritian Defence Forces in safeguarding their interests in the Outer Island
- This is also core strategic point from India's point of view for its military base

Concerns

- Prime Minister Pravind Jugnauth's government faced tough questions in the National Assembly as the Opposition raised a storm over Indian involvement in the project and its costs and whether it would involve a military component.
    - There have been growing reports over the Indian naval and coastguard's interests in setting up transponder systems and surveillance infrastructure, which has led to some local protests.
    - Government's "lack of transparency" over the project and the Mauritian government has exempted the project from any Environmental license process (EIA clearances).
- Several Islanders, including some from Agalega, which has a tiny population of 300, formed the "Koalision Zilwa Pou Lape" (Islanders Coalition for Peace), to lobby against the Agalega project.

Superpowers hold in Indian Ocean

- Mauritius is in a major international legal battle over the ownership of its Chagos Island
- Diego Garcia the site of a joint military facility of the United Kingdom and the United States.
- France maintains naval bases in the Indian Ocean and stations frigates off its Reunion islands
- China has a string of naval assets in the region from Gwadar to Djibouti
- This is leading to fears of peaceful island region becoming increasingly militarized.

Elsewhere

- Similar protests in Seychelles caused the project being shelved. This is being speculated due to China's heavy investment in the Seychelles, which allowed it to lean on the Seychellois government.
- A similar situation was believed to have led to former Maldivian President Yameen's decision to cancel the loan of two Indian military helicopters and the visas of about 28 naval personnel

Conclusion

- With two-thirds of the world's oil shipments, a third of world's bulk cargo and about half of all container traffic traversing through the Indian Ocean waters that surround nations like Seychelles, Madagascar, Mauritius and the Maldives at stake, it is easy to see that India's claims of primacy in the Indian Ocean Region will face more such challenges.
- Islands in the Indian Ocean Region have acquired distinctive strategic relevance, so India will have to step up its appeal and comfort index, more so since it is pitted against China's deep pockets.

Asia-Europe Meeting (ASEM)

- It is an intergovernmental process established in 1996 to foster dialogue and cooperation between Asia and Europe
- It comprises 53 partners: 30 European and 21 Asian countries, the European Union and the ASEAN Secretariat.
- ASEM addresses political, economic, financial, social, cultural, and educational issues of common interest, in a spirit of mutual respect and equal partnership.
- ASEM is bi-annual event conducted as an informal and flexible process on the basis of equal partnership, mutual respect and mutual benefit and to promote the exchange of ideas and best practices and thus act as breeding ground for new policy ideas.
- The theme of the 2018 ASEM Summit is 'Global Partners for Global Challenges'.

Context

- Vice President leaves for Belgium to attend 12th ASEM Summit

Cope India

- Cope India are a series of international Air Force exercises between the Indian Air Force and the United States Air Force conducted on and over Indian soil.
- Cope India was first conducted in 2004 in Gwalior.
- The exercise included flight tests, practice and demonstrations as well as lectures on subjects related to aviation.

Context

- India, Japan and the U.S. are set to elevate the bilateral 'Cope India' air exercise to a trilateral format.
- The U.S. had proposed a trilateral air exercise between India, Japan and the U.S.
- For this, the Cope India exercise will be elevated to a trilateral level in phases

Dharma Guardian

Context

- India and Japan are all set to hold the first ever joint military exercise 'DHARMA GUARDIAN-2018' involving the Indian Army and Japan Ground Self Defence Force at Counter Insurgency Warfare School, Vairengte, India

Details

- The emphasis will be laid on increasing interoperability between forces from both countries.
- Both sides will jointly train, plan and execute a series of well-developed tactical drills for neutralization of likely threats that may be encountered in urban warfare scenario.

Significance

- It is yet another step in deepening strategic ties including closer defence cooperation between the two countries.
- It will contribute immensely in developing mutual understanding and respect for each other's militaries and also facilitate tracking the worldwide phenomenon of terrorism

Hand-in-Hand

- It is an annual joint Army exercise between India and China
- The scope of the exercise is to understand transnational terrorism and evolve joint drills for the conduct of counter terrorism operations, in addition to Humanitarian Assistance and Disaster Relief operations.
- The exercise will be held in three phases — familiarization, basic training and the joint exercise.
- The drill was cancelled last year due to tense relations in the aftermath of the Doklam standoff.

India–West Africa conclave in Nigeria

- The India-West Africa Conclave, the first event of its kind to be organised by India in West Africa, will have the presence of Trade, Commerce & Industry Ministers from India and all the fifteen (15) ECOWAS Member-countries, to further strengthen development partnerships.
- The conclave aims to serve as a platform for dialogues between India and the 15 West African countries, who are members of ECOWAS, to further strengthen the developmental partnerships.
- It will be a platform for Indian and African private sectors and key financial institutions to identify priority areas and special projects for Indian investment and partnership, with a long-term commitment to West Africa.
    - The Conclave will also focus on economic and commercial deliberations through Business to Government (B2Gs) and Business to Business (B2Bs) engagements.
- It will be an opportunity for the Indian private sector and key institutions, like EXIM Bank of India, to identify priority areas and key projects for Indian investment and partnership with long term commitment to the region.
- India and West Africa have a combined population of around 1.7 billion people and a combined Gross Domestic Product of around $3.1tn, setting the stage for taking the India-West Africa relationship to the next level.

Economic Community of West African States (ECOWAS)

- It is a regional economic union of fifteen countries located in West Africa.
    - Member countries making up ECOWAS are Benin, Burkina Faso, Cape Verde, Cote d' Ivoire, The Gambia, Ghana, Guinea, Guinea Bissau, Liberia, Mali, Niger, Nigeria, Sierra Leone, Senegal and Togo
- The union was established in 1975, with the signing of the Treaty of Lagos, with its stated mission to promote economic integration across the region.
- ECOWAS also serves as a peacekeeping force in the region, with member states occasionally sending joint military forces to intervene in the bloc's member countries at times of political instability and unrest
- The Vision of ECOWAS is the creation of a borderless region where the population has access to its abundant resources and is able to exploit same through the creation of opportunities under a sustainable environment.

- Headquarters: Abuja, Nigeria

India for Humanity initiative

- The Ministry of External Affairs has launched the 'India for Humanity' initiative to commemorate the 150th birth anniversary of Mahatma Gandhi in honor of his service to humanity
- The aim is to provide for the physical, economic and social rehabilitation of the differently-abled around the world by helping them regain their mobility and dignity to become self-respecting and productive members of society.
- With its focus on Mahatma Gandhi's philosophy of compassion, caring and service to humanity, the initiative will feature a year-long series of artificial limb fitment camps in a number of countries spanning the globe, for which the MEA is collaborating with the renowned charitable organization -- "Bhagwan Mahaveer Viklang Sahayata Samiti" (BMVSS).
- These camps will be initially held in 12 countries identified through our missions with financial support of the central government.

Intermediate-Range Nuclear Forces Treaty (INF)

- It is a 1987 arms control agreement between the United States and the Soviet Union to eliminate and permanently renounce all of their nuclear and conventional ground-launched ballistic and cruise missiles with ranges of 500 to 5,500 kilometers.
    - The treaty did not cover sea-launched missiles
- It was signed by U.S. President Ronald Reagan and Mikhail Gorbachev, the last Soviet leader. Mr. Gorbachev
- The treaty marked the first time the superpowers had agreed to reduce their nuclear arsenals, eliminate an entire category of nuclear weapons, and utilize extensive on-site inspections for verification.

- As a result of the INF Treaty, the United States and the Soviet Union destroyed a total of 2,692 short-, medium-, and intermediate-range missiles by the treaty's implementation deadline of June 1, 1991.

Context

- US President Donald Trump announced that he was withdrawing the US from the treaty citing Russian non-compliance
- The Trump administration has complained of Moscow's deployment of Novator 9M729 missiles, also known as the SSC-8, that could strike Europe at short notice, which Washington says fall under the treaty's ban on missiles that can travel distances of between 310 and 3,400 miles.
- The Russians denied the allegations and raised counter-allegations of the U.S. installing missile defence systems in Europe.

Background

- The INF Treaty reflected the political reality of the Cold War — of a bi-polar world with two nuclear superpowers — no longer consistent with today's multi-polar nuclear world.
- The INF Treaty was widely welcomed, especially in Europe because these missiles were deployed in Europe
    - By the early 1980s, the U.S.S.R. had accumulated nearly 40,000 nuclear weapons, exceeding the U.S. arsenal.
    - To reassure its North Atlantic Treaty Organization (NATO) allies about its nuclear umbrella, the U.S. began deploying Pershing IIs and GLCMs in the U.K., Belgium, Italy and West Germany, setting off a new arms race.
- Growing rhetoric made the Europeans nervous. Realization dawned that any nuclear conflict on European soil would only lead to more European casualties, catalyzing a movement for 'no-deployments' in Europe.
- In the 1980s, the U.S. and the U.S.S.R. began three sets of parallel negotiations —
    - on strategic weapons leading to the Strategic Arms Reduction Treaty (START),
    - on intermediate-range weapons leading to the INF, and
    - The Nuclear and Space Talks to address Soviet concerns about Reagan's newly launched 'space wars' programme (Strategic Defense Initiative).
- Since it was bilateral, the INF Treaty did not restrict other countries but this hardly mattered as it was the age of bi-polarity and the U.S.-U.S.S.R. nuclear equation was the only one that counted.

Changing political backdrop

- Nuclear Posture Review (NPR)
    - The Nuclear Posture Review chartered in 1993 determines what the role of nuclear weapons in U.S. security strategy should be.
- The U.S.'s 2018 Nuclear Posture Review (NPR) reflects a harsher assessment of the security environment faced by the U.S. and envisages a more expansive role for nuclear weapons than in the past.
    - Russia is blamed for seeking the break-up of NATO and a re-ordering of 'European and Middle East security and economic structures in its favour'.
    - China is identified for the first time as a strategic competitor seeking regional hegemony in the Indo-Pacific region in the near-term and 'displacement of the U.S. to achieve global pre-eminence in the future'.

- The key difference with today's return of major power rivalry is that it is no longer a bi-polar world, and nuclear arms control is no longer governed by a single binary equation.
    - There are multiple nuclear equations — U.S.-Russia, U.S.-China, U.S.-North Korea, India-Pakistan, India-China, but none is standalone.
    - Therefore, neither nuclear stability nor strategic stability in today's world can be ensured by the U.S. and Russia alone and this requires us to think afresh.
- The political disconnect is also evident in the Treaty on the Non-Proliferation of Nuclear Weapons (NPT), the most successful example of multilateral arms control.
    - It can neither accommodate the four countries outside it (India, Israel, North Korea and Pakistan) as all four possess nuclear weapons,
    - nor can it register any progress on nuclear disarmament.

Implications

- This will trigger a new nuclear arms race in Europe and elsewhere.
- There are also concerns that the treaty's end could mark the beginning of a new arms race between the U.S. and Russia.
- The next casualty is likely to be the New START agreement between the U.S. and Russia, which will lapse in 2021, unless renewed for a five-year period.
    - This limits both countries to 700 deployed intercontinental ballistic missiles (ICBMs), submarine-launched ballistic missile (SLBMs) and heavy bombers and 1,550 warheads each.
    - However, Mr. Trump has described it as "one of several bad deals negotiated by the Obama administration".

Conclusion

- The most important achievement of nuclear arms control is that the taboo against use of nuclear weapons has held since 1945.
- Preserving the taboo is critical but this needs realisation that existing nuclear arms control has to be brought into line with today's political realities.

Iron Magic 19

- It is a military exercise between United Arab Emirates (UAE) and the US
- The exercise seeks to reinforce cooperation, joint actions and exchange of expertise in military areas
- This will contribute to "maximizing the combat capabilities and increasing coordination between the UAE and the US armed forces
- The bulk of UAE military hardware, such as F-16 fighter jets, Mirage jets and Apache Longbow attack helicopters, are mostly manufactured by companies from the US, Britain and France.

Jamal Khashoggi

- He is a Saudi Arabian journalist and author who has been sharply critical of Saudi Arabia's crown prince, Mohammad bin Salman
- He had opposed the Saudi Arabian-led intervention in Yemen

Context

- Khashoggi disappeared on 2 October 2018 and was last seen entering the Saudi Arabian consulate in Istanbul, Turkey.

- He visited the Saudi consulate in Istanbul to pick up a document he needed under Turkish law to marry his fiancee, a Turkish woman.
- The Turkish authorities have released video footage of Mr. Khashoggi entering the consulate and said there is no footage of him leaving the building

Ankara-Riyadh relationship is strained over several issues

- This includes Turkey's support for Qatar in the blockade by Saudi Arabia;
- Its closeness to the Muslim Brotherhood — blacklisted by Riyadh as a terrorist organization;
- Its rapprochement with Saudi Arabia's arch-rival Iran

If Turkey is able to prove — or chooses to prove — that Khashoggi was murdered in Istanbul, it could precipitate "the most serious diplomatic crisis between the countries in living memory".

Voicing apprehension

- Countries including the U.S. and Turkey as well as international organizations like the UN have turned up the pressure on Riyadh to reveal the truth.
- Chief executives of some of the potential big-ticket investors, including JP Morgan, Blackstone and BlackRock, have already pulled out of an investment conference due to be held in Riyadh
- The chief of the International Monetary Fund, Christine Lagarde, has cancelled her participation at the 'Davos in the Desert' Conference, in Riyadh. Significantly, the U.S. Treasury Secretary has joined the boycott.

Impact

- If proved true this will be effective in silencing dissent for a long while.
- Khashoggi is a US resident; Turkey is a NATO ally, but its relationship with the US is going through a rough patch; and Saudi Arabia is probably President Donald Trump's closest ally in that part of the world. And yet, despite Western support for the reformist Prince, such a brazen violation of international diplomatic norms is unlikely to pass without repercussions.

A look at it from India's Lens

- Saudi Arabia is defiant. It has warned all those who may be thinking of isolating or even moving sanctions against the regime with dire consequences.
- In context to India, Saudis as well as the Iranians fund radical Sunni and Shia mosques in India.
- It is reported to have been going on for decades, perhaps before Independence. Yet, successive governments have not found it possible to protest such behaviour which amounts to direct interference in India's internal affairs and in radicalizing sections of the Muslim community.
    - It was felt that India's dependence on West Asian energy sources or
    - It's possible support against India in Organization of Islamic Cooperation, or
    - Side with Pakistan on the Kashmir issue is what made us cautious.

Timeline

Conclusion

- Any delay in letting the world know the truth about Mr. Khashoggi will make matters worse for the Saudi, which is known for its poor human rights record.
- The international community, including the U.S., a crucial ally of Saudi Arabia, now has a moral responsibility to maintain the pressure on the kingdom to pay heed to human rights violations.

JIMEX

- JIMEX-18 is aimed to enhance interoperability, improve understanding and imbibe the best practices of each other.
- It will comprise a Harbour Phase and a Sea Phase
- The Harbour Phase of the exercise will include professional and social interactions between ship's crews, sports fixtures and operational planning for the Sea Phase.
- The Sea Phase would include Anti-Submarine Warfare Exercises, VBSS (Visit, Board, Search and Seizure) Drills, Gun Firings, Cross Deck Helo Operations and coordinated operations in Anti-Submarine/ Anti-Air threat scenarios.

Significance

- The last edition of JIMEX was conducted in Dec 2013 off Chennai.
- The conduct of JIMEX-18 after five years is indicative of an upswing in the Indo-Japanese defence relations and the continued efforts of both Governments to work closely to enhance safety and security of the global commons in keeping with 'rule based order'.
- The two navies have been working in close coordination in Anti-Piracy Operations in the Gulf of Aden (GoA) for the past few years.

Migrant Caravan

Context

- A caravan of people fleeing crime and poverty began in San Pedro Sula in Honduras with plans to march through Guatemala and Mexico to the United States. President Trump has threatened to cut aid to Honduras if it did not stop the migrants

Details

- People from Guatemala, Honduras and El Salvador are fleeing persecution, poverty and violence in their home countries.
- Honduras, which has a population of about nine million, has endemic problems with gang violence, drug wars and corruption. The wider region has one of the highest murder rates in the world.
- Most of the migrants say they are seeking a new life and better opportunities in the US or Mexico.
- Others say they are fleeing violence in their home country and intend to apply for asylum.

Painful Journey

- The hot weather means sunburn and dehydration are a constant risk, and some of the migrants have attempted to protect themselves with umbrellas and pieces of cardboard.
- A number of people have fainted during the journey after walking for six consecutive days.
- The migrants have been sleeping on the streets or in makeshift camps and there is a lack of clean water and sanitation.

- Food is also in short supply, and local people have reportedly been providing the convoy with some food as it passes through.

What happens if they reach the US?

- There is a legal obligation to hear asylum claims from migrants who have arrived in the US if they say they fear violence in their home countries.
- If they pass the first step of the asylum process, known as a Credible Fear Interview, they will be held in detention or released in the US and face an immigration court
- If they do not pass the screening, or are denied entry to the US on other grounds, they will be deported.

Trump on caravan

- He criticised a number of Central American countries for allowing people to leave the region and come "illegally" to the US.
- Mr Trump also threatened to cut off foreign aid to these countries

Conclusion

- Americans can never get away from the fact that they are and will probably always be a nation of immigrants.
- So only time will decide what turn of events would be taking place in the future.

Sri Lankan projects delayed, PM Modi tells Ranil Wickremesinghe

Context

- During the visit of Sri Lankan Prime Minister Ranil Wickremesinghe to India, Prime Minister Narendra Modi discussed the progress of a number of pending development projects expressing "concern" over delays

The pending projects include

- LNG terminal in Kerawalapitiya near Colombo,
- A 50-100 MW solar power plant in Sampur,
- An oil tank farm in Trincomalee
- A container terminal in the Colombo port.
- There has been little word on a proposal for India to develop the Palaly airport near Jaffna and the Mattala airport near Hambantota.

Reasons of delay

- Some of the delay is over concerns that India would be allowed to acquire Sri Lankan land.
- The projects have also run into rough weather because of the deep disagreements between President Maithripala Sirisena and Mr. Wickremesinghe, who belong to rival parties
    - Mr. Wickremesinghe has been pushing for India to be handed the container terminal, while President Sirisena wants to retain it for Sri Lanka.

Palaly airport in Sri Lanka to be developed by AAI

Context

- Airports Authority of India (AAI) is set to prepare a detailed project report for the development of Palaly airport in Sri Lanka.
- This would be the first project for the AAI in the island nation

Why developing the Palaly airport is important?

- India is looking to develop other airports in the island nation along with Palaly.
- Palaly is in Jaffna in the north — Tamil territory. India had earlier promised to develop Palaly airport which has been a demand by the Northern Province for some time.
    - Palaly is important due to the fact that it is in the sensitive Tamil-dominated, traditionally closer to India.
    - By developing critical infrastructure here, India is also keeping a foothold in this part of Sri Lanka
- The airport will be Sri Lanka's first in the north, give the northern people direct connectivity with places like south India, Malaysia and Thailand.
- India has also offered to develop the Kankesanthurai airport also in the north, as well as the Mattala international airport in south Sri Lanka, neighboring the Chinese developed Hambantota port.

Trincomalee Oil Tank Farm

History

- It is the oil tank farm which was initially built by the British during WW2.
- The main purpose of the oil tank farm was to fuel the Royal Navy and the Royal Air Force (RAF), which were used during the East Indian defense against the Japanese aggression.
- After Singapore was captured by the Japanese, Trincomalee became the main refueling base in the region.

India's reach of development

- India has been engaging with Sri Lanka since 2003, almost 15 years after the 1987 Indo-Sri Lanka Accord granted first preference to India in the running of the oil storage facility.
- As per the 2003 agreement signed by the neighbours, India was to upgrade and commission the 99 tanks in the farm – each with a capacity of 12,250 kilolitres – on a 35-year lease.
- However, the project did not take off fully as planned, as the two sides could not come to an understanding on operational aspects.
- During a visit in 2015, Indian Prime Minister Narendra Modi also spoke about the tanks, highlighting that developing the tank farm "would help the coastal town become a regional petroleum hub".

Sri Lanka unity govt. falls, Rajapaksa is PM

Context

- Sri Lankan President Maithripala Sirisena's party United People's Freedom Alliance, announced its decision to quit the unity government.
- Former President Mahinda Rajapakse returned to power as the country's new Prime Minister. He was sworn in by President Maithripala Sirisena inspite of objection from Prime Minister Ranil Wickremesinghe calling it unconstitutional.

Details

- There was a major breakdown in ties between Sirisena and Wickremesinghe especially on policy issues related to economy and security.
- Sirisena had accused his senior coalition partner, the United National Front (UNP), of not taking seriously an alleged conspiracy to assassinate him
- There was also a threat to Gotabhaya Rajapaksa, the former top defence ministry bureaucrat

Constitutional Dilemma

- Under the 19th Amendment of the Sri Lankan Constitution, brought in by the National Unity government in 2015, and which restricted many of the President's powers, he also lost the power to dismiss the Prime Minister.
- Under Article 42 (4) of the Constitution, "The President shall appoint as Prime Minister the Member of Parliament, who, in the President's opinion, is most likely to command the confidence of Parliament."
- But under Article 46 (2), "The Prime Minister shall continue to hold office throughout the period during which the Cabinet of Ministers continues to function under the provisions of the Constitution unless he resigns his office by a writing under his hand addressed to the President; or ceases to be a Member of Parliament."
    - The Amendment specifies that a Prime Minister cannot be removed unless he resigns from office, or ceases to be a Member of Parliament.
    - The resignation of the Prime Minister can also lead to dissolution of Parliament.
- According to the 19th Amendment, a resolution adopted by two-thirds majority can dissolve Parliament.

'Sahyog HOP TAC -2018

- It is joint exercise between Vietnam and India
- The exercise was aimed at acquainting the coast guards of the two countries with each other's' capabilities and strengthening the working level relationship to rescue lives at sea.
- The highlight of the exercise was a scenario of hijacking an oil ship and subsequent rescue of its crew in the coordinated joint operation of both the countries.

S-400 missile deal

Context

- India and Russia concluded the contract for five S-400 'Triumf' missile systems, one of the biggest defence deals in recent times, after the annual summit between Prime Minister Narendra Modi and Russian President Vladimir Putin.

Details

- The S-400 is known as Russia's most advanced long-range surface-to-air missile defence system, capable of destroying hostile strategic bombers, jets, missiles and drones at a range of 380-km. So it can take down enemies' aircraft in the sky from the surface itself.
- The S-400 has three components -- the missile launchers themselves, a powerful radar and a command centre.
    - The radar can track targets 600 km away. For example, S-400 systems deployed in India can track aircraft flying well outside the country's borders, which is a major threat deterrence to the enemy's air force.
- India would be the second customer after China
- Deliveries of the S-400 will begin in 24 months, at the end of 2020
- As per the procedure, the source also said that India would pay about 15% in advance, likely through the rupee-rouble mechanism

Why does India want S-400?

- S-400 would be like a "booster shot" in the Indian Air Force's (IAF) arm.
- India needs to be well-equipped against neighboring threats.
- Pakistan has over 20 fighter squadrons, with upgraded F-16s, and inducting J-17 from China in large numbers.
- China has 1,700 fighters, including 800 4-Gen fighters.
- Whereas, a shortfall of over fighter squadrons has severely affected IAF's efforts to pose a challenge to the enemies.
- No country is facing the kind of grave threat that India is confronted with. Intentions of our adversaries can change overnight. We need to match force level of our adversaries

Issue Area

- To be most effective, however, it needs to be integrated with other air defence systems and components — such as radars — operated by the purchasing country.

- This however, presents problems if some of these have been bought from the U.S. or potentially other Western states, where the required levels of integration will not be possible because of security concerns

Terminal High Altitude Area Defence systems (THAAD Missile)

- United States made an offer to India to purchase its Terminal High Altitude Area Defence systems (THAAD Missile) rather than the Russian S-400.
- It is an American anti-ballistic missile defense system designed to shoot down short-, medium-, and intermediate-range ballistic missiles
- It uses hit-to-kill technology to destroy enemy missiles by kinetic energy.
- It has a range of 200 km and can reach altitudes of 150 km.

Why did India opt for S 400 over THAAD?

- The range of S 400 is 400 while the range of THAAD is 200
- India has proved and reliable friendship with Russia. This was a major add on for India to accept as Russia has stood with it in tested times.
- Currently THAAD is employed in South Korea and Saudi Arabia. The commission of the equipment requires host country to follow stringent rules and abide by USA. This was not going good with India.
- India could not have taken any more time due to threat from our neighbors due to muscle flexing from China and Pakistan. Any delay could hamper its security.
- India is also in talks with Russia for transfer of technology for Assault rifles. This agreement could add mettle to it.
- India also believes in balancing act and establishing macro stability in Indian Russian relationship. This was the ideal way to establish credibility.

Will USA apply sanctions?

- The defence deals between India and USA has mushroomed from 2% to about 15%. Any act of USA to sanction India could jeopardize its relationship.
- So USA will be cautious enough to ignore these facts.
- Also this move could advance in strengthening regional stability so USA should be happy that its indo pacific region will be now more secure.

On Russia Pakistan

- Druzhba-They conducted military exercise between Russia and Pakistan which began in Pakistan.
- India has raised its voice over this issue and Russia has paid heed to it.
- So it indirectly puts pressure on Pakistan to clean its terrorism environment
- Also India need not worry so much as it is buyer seller relationship between Russia and Pakistan and majority of weapons are sourced from China to Pakistan

Concerns

- Terrorism was not mentioned directly though there were talks of curbing sources and increasing joint operations
    - There was no reference to Pakistan and terrorism emanating from its soil
- Russia and Pakistan getting closer and India's relationship with USA should under constant watch as any close proximity could alienate and drift each other relationships

Other Areas of cooperation

Done deal

India and Russia inked 8 deals in a variety of sectors, including railways, fertilizers and space

BETTER CO-OPERATION: Protocol for consultations between the Ministry of Foreign Affairs, Russia, and MEA between 2019 and 2023

ECONOMIC DEVELOPMENT: MoU between the Ministry of Economic Development and NITI Aayog

FERTILIZERS: Indian Potash Ltd. has agreed to import up to 2 million tonnes of fertilizers, worth ₹7,300 crore, from Russia's PhosAgro

MSME: MoU between the National Small Industries Corporation, India, and the Russian Small and Medium Business Corporation

SPACE: MoU between ISRO and the Russian space agency in the field of human spaceflight

RAILWAYS: Includes implementation of projects agreed to in an MoU in 2015 and raliway-related education

NUCLEAR: Action plan for prioritisation and implementation of cooperation areas

- Both sides called for the development of the International North-South Transport Corridor (INSTC) through intensified efforts by finalizing pending issues related to customs authorities, development of road and rail infrastructure and financial facilitation through bilateral discussions

Seoul Peace Prize

- Seoul Peace Prize Foundation was established in 1990 to commemorate the success of the 24th Olympic Games held in Seoul.
- The Prize is given biennially
- The award was established to crystalize Korean people's yearning for peace on the Korean peninsula and in the rest of the world.
- The prize has been awarded to those who have made their mark through contributions to the harmony of mankind, reconciliation between nations and to world peace.

Context

- Prime Minister Narendra Modi has been conferred with the Seoul Peace Prize for 2018 for his contribution to international cooperation and fostering global economic growth

Details

- Mr. Modi is the 14th recipient of the award and the past laureates included former United Nations Secretary General Kofi Annan, German Chancellor Angela Merkel and renowned international relief organizations like Doctors Without Borders and Oxfam
- The award committee recognized his contribution to the growth of Indian and global economies, crediting 'Minicomics' for reducing social and economic disparity between the rich and the poor.
- The committee lauded Mr. Modi's initiatives to make the government cleaner through anti-corruption measures and demonetization
- The committee also credited him for his contribution toward reginal and global peace through a proactive policy with countries around the world under the 'Modi doctrine' and the "Act East" policy

Universal Postal Union

- It was established by the Treaty of Bern of 1874, is a specialized agency of the United Nations (UN) that coordinates postal policies among member nations, in addition to the worldwide postal system.
- It's the second-oldest international organization.
- The UPU's headquarters are located in Bern, Switzerland
- French is the official language of the UPU. English was added as a working language in 1994.
- The majority of the UPU's documents and publications – including its flagship magazine, Union Postale – are available in the United Nations' six official languages (French, English, Arabic, Chinese, Russian, and Spanish)

Context

- The Trump administration announced that the US will withdraw from the Universal Postal Union (UPU), the organization that coordinates postal policy around the world.

Details

- It allows developing countries to pay cheaper rates when shipping packages internationally, often putting some of the cost of delivering packages on the postal services of wealthier countries.
    - The policy was initially intended to spur economic growth in poorer countries by connecting them with global markets.
- China (and other developing countries) now are shipping parcels to the United States at low cost based on rates established by the UPU.
- These steep postal discounts add to the considerable cost advantages Chinese manufacturers already have over American firms.
- And they hurt the United States Postal Service — which delivers packages that originate from China at a loss — and put private shippers like FedEx and UPS at a disadvantage.
- The White House's solution is to adopt its own rates for letters and goods coming into the US, and then get out of the UPU.

Yemen Crisis

Yemeni Revolution

- The Yemeni Uprising (intifada), and also known as the Yemeni Revolution of Dignity followed the initial stages of the Tunisian Revolution and occurred simultaneously with the Egyptian Revolution of 2011 and other Arab Spring protests
- In its early phase, protests in Yemen were initially against unemployment, economic conditions and corruption, as well as against the government's proposals to modify Yemen's constitution.
- The protesters demands then escalated to calls for the resignation of Yemeni President Ali Abdullah Saleh.
- Saleh signed a power-transfer agreement brokered by the Gulf Cooperation Council in Riyadh where Vice President Abdrabbuh Mansur Hadi took over as president after Presidential elections in 2012.
    - President Hadi struggled to deal with a variety of problems, the continuing loyalty of many military officers to Mr Saleh, as well as corruption, unemployment and food insecurity.
- There were continuous threats both from Al-Qaeda in the Arabian Peninsula and Houthi militants.

Houthis

- The Houthis are members of a rebel group, also known as Ansar Allah (Partisans of God), who adhere to a branch of Shia Islam known as Zaidism.
- Zaidis make up one-third of the population and ruled North Yemen under a system known as the imamate for almost 1,000 years until 1962.
- The Houthis take their name from Hussein Badr al-Din al-Houthi.
    - He led the group's first uprising in 2004 in an effort to win greater autonomy for their heartland of Saada province, and also to protect Zaidi religious and cultural traditions from perceived encroachment by Sunni Islamists.
- In 2011, the Houthis joined the protests against then President Saleh and took advantage of the power vacuum to expand their territorial control in Saada and neighboring Amran province.
- In 2014, Houthi fighters swept into the capital of Sana'a
- The 2015 Houthis declared themselves in control of the government, dissolving Parliament and installing an interim Revolutionary Committee led by Mohammed Ali al-Houthi, a cousin of Houthi leader Abdul-Malik al-Houthi.

Saudi Arabian war in Yemen

- Saudi Arabia started the attack in March 2015 after Shia Houthi rebels captured parts of Yemen, including the capital city Sana'a.
- Riyadh saw the Houthis as Iranian proxies and was worried they would establish stable rule in its backyard.
- For the sake of legitimacy, the Saudis claimed they were fighting on behalf of the globally recognised government of Yemen, led by President Abdrabbuh Mansour Hadi who is reported to be residing in Riyadh.
- But the war has reached a bloody stalemate as the Houthis still remain powerful in northern Yemen and the government controls the southern parts, including Aden.

Human Rights Issues

- 130: the number of children under 5 who die each day from hunger and disease
- UNICEF's operation in Yemen estimates there are 1.8 million children currently facing malnutrition, including 400,000 who are severely malnourished and at risk of death if not urgently treated. More than 8 million children are cut off from regular access to basic water, sanitation and hygiene services.
- The fighting has left 6,800 civilians dead and more than 10,000 injured, sparking the world's worst humanitarian crisis.
- Yemen's gross domestic product has been cut in half since 2015, with more than 600,000 jobs lost and a least 80 percent of the population living below the poverty line, according to U.N. numbers.

Concerns for World

- Jihadist militants from Al-Qaeda in the Arabian Peninsula (AQAP) and rival affiliates of the Islamic State group (IS) have taken advantage of the chaos by seizing territory in the south and carrying out deadly attacks, notably in Aden.
- Yemen is strategically important because it sits on the Bab al-Mandab strait, a narrow waterway linking the Red Sea with the Gulf of Aden, through which much of the world's oil shipments pass.

Way forward

- If Saudi Arabia has geopolitical concerns about Iran's growing influence, it should address them directly with Tehran, not by punishing the people of Yemen.
- It must immediately cease the bombing campaign, lift the blockade and allow food and medicine supplies into Yemen.
- This will clear the way for talks between the Yemeni government and the rebels.
- The obvious lesson of the last three years of this disastrous conflict is that there is no military solution to the Yemen crisis. The sooner this is heeded, the better it will be for Yemen's people.

India, China join hands to train Afghan diplomats

Context

- India and China jointly launched a training programme for Afghan diplomats in New Delhi, a move that signaled India-China cooperation going regional

Details

- At the launch of joint Indo-China project for training Afghan diplomats in New Delhi, Chinese Ambassador to India Luo Zhaohui also suggested that China-India Plus cooperation should be extended from Afghanistan to other countries such as Nepal, Bhutan, Maldives, Iran and Myanmar.
- China has reached out to India to create joint projects in South Asia similar to Sino-Indian joint projects in Afghanistan.
- The India-China cooperation on Afghanistan was seen as a step to reduce tensions between the neighbours whose ties are mired in mutual suspicion because of an unsettled border dispute dating back to 1962, as well as other issues.
- India and China had identified Afghanistan as a priority partner and agreed to start by jointly training Afghan diplomats

BCIM

- Bangladesh, China, India and Myanmar-Economic Corridor (BCIM-EC) is a sub-regional grouping that seeks to deepen friendly cooperation among the four member nations and linking South Asia with

Southeast and East Asia by building multi-modal connectivity, harnessing economic complementaries and enhancing people-to-people relations.

- The primary focus of the economic corridor is to facilitate trade and connectivity between the landlocked and underdeveloped southwestern parts of China and the North Eastern region of India.
- The proposed economic corridor will originate from Kunming in China's Yunan province and pass through Yangon and Mandalay in Myanmar, Chittagong-Dhaka-Sylhet in Bangladesh before entering North Eastern states, Bengal and ending in Kolkata.

Stats

- BCIM region accounts for 9 percent of the world's total landmass and 40 percent of its population.
- The combined population of India's Northeast, China's Yunnan province, Bangladesh, and Myanmar is 440 million.
- Among the four members, China represents 14.8 percent of the world economy and India 2.83 percent.

Significance

China is one of the leading manufacturing countries of the world, while India excels in service sector exports. Myanmar is a primary goods exporter and has abundant cheap labor. Bangladesh is engaged in low-end manufactured goods especially garments and clothing.

- The countries involved are expected to gain from greater market access for goods, services, and energy trade.
- The elimination of non-tariff barriers and tariff barriers along with development of value and supply chains based on comparative advantage can transform the entire region.
- BCIM can also play effective role in the energy trade and in the development of tourism.
- Apart from facilitating easy travel and hassle-free visas among the members, the countries can also develop religious tourism circuit.
- The energy trade is feasible in the region as the southwestern provinces of China (Sichuan, Guizhou, and Yunnan), the northeastern states of India, Yadana, and the Shwe gas fields in Myanmar, all have large reserves of natural gas. In addition, this subregion has rich reserves of coal, petroleum, and manganese.
- The region also has substantial water resources that could be employed in generating hydroelectricity to accelerate the industrial sector.

Saudi Arabia promises to meet India's oil needs

Context

- Saudi Arabia has said that it stands committed to meeting all of India's energy needs, especially in oil in a meet at India Energy Forum
- Saudi Aramco's investment of $44 billion in the Ratnagiri refinery was "just the start" and that the company was keen to invest in an integrated downstream business, including on the retail side, as well as in storage capacity.
- This has to be also understood in the back drop of sanctions on Iran by USA and Saudi Arabia assuring India that it is ready to provide that extra supply in case of drop in supply from Iran.
- An understanding of India's West Asia policy in relevance to Arab and Iran should also be looked into in the background

India Energy Forum

- It was established in October 2001
- The Forum serves as a catalyst for the development of a sustainable and competitive energy sector in India.
- The Forum serves as an independent advocate of the industry promoting practical solutions to problems affecting project development and finance in India.
- The Forum works with companies and Government (Centre and States) to achieve consensus on such issues as regulatory structures and policies and the role of public organizations.

Delhi's dilemma in West Asian Region

- Delhi's grand narrative in the Middle East has been inherently incapable of dealing with the conflicts that unfolded from the late 1970s along multiple axes.
- Consider, for example, the following current conflicts in the region: Saudi Arabia and Turkey (Arab versus non-Arab), Saudi Arabia and the UAE versus Qatar (Arabs against Arabs), Saudi Arabia and Iran (Arab versus Persian, Sunni versus Shia), and the struggle of the 35 million Kurds for a homeland (ethnic nationalism that is pitted against Turkey, Syria, Iraq and Iran that host Kurdish minorities).

Bureaucratic politics.

- India's ability to deal with the conflict between the Gulf Arabs and Iran is impaired by the decision to put them in separate boxes at the operational level.
- There is a Gulf unit in the MEA that deals with the Arab side and Iran is clubbed with another dealing with Pakistan and Afghanistan.
- It is no surprise that the PAI (Pakistan, Afghanistan and Iran) division gets a lot more attention than the Gulf unit.
    - The PAI division is handled by the foreign secretary on a daily basis and gets continuous high-level attention from the external affairs minister and the prime minister.
- The Gulf division has become a backwater handled at lower levels of South Block's bureaucratic and political hierarchy.
    - Prime Minister Narendra Modi has sought to correct this by travelling more frequently to the region and trying to elevate the quality of engagement with the Arab Gulf.
    - But Delhi is a long way from a coherent strategy that can cope with the confrontation between the Gulf Arabs and Iran.

Delhi's tilt towards Iran needs a reexamination

- Delhi's tendency to privilege long-term geopolitical expectations from Iran over the far weightier current relationship with the Gulf Arabs.
- On all the current economic indicators — supply of hydrocarbons, size of the migrant workers, hard currency remittances, trade and mutual investments — Iran offers no serious comparison with the Arab Gulf.
- Parts of the Arab Gulf are also emerging as modern financial and innovation hubs that offer great possibilities to India. Iran is nowhere in that game.
- On political issues too, the intensity of cooperation with the Gulf Arabs — on counter-terrorism, defence engagement and military exchanges — outweighs that with Iran. While
- A section of the Arab leadership has begun to talk about promoting moderate Islam, Iran remains wedded to pan-Islamist ideas on foreign policy.

- Some of the Gulf Arabs are now ready to help extend India's naval reach in the Western Indian Ocean in a manner that Iran really can't.

Iran's role cannot be discounted

- India has important interests in Iran — as a gateway to Central Asia, as an energy source, a market
- It plays a critical role in shaping the future of Afghanistan
- It will help in addressing issues of terrorism that are emanating from multiple sources in this region

Way forward

- The time is now for Delhi to begin a substantive political engagement with the Arab Gulf on all issues that threaten to destabilize a vital region in India's neighbourhood and also manage Iran.
- On juxtaposing these two conflicting regions Arab region's importance outweighs Iran but India should also engage its diplomacy in Tehran so that it does not antagonize them.

India Elected To UN Human Rights Council with Most Number of Votes

Context

- India was elected to the United Nations' top human rights body for a period of three years beginning January 1, 2019, getting 188 votes in the Asia-Pacific category, the highest number of votes among all candidates.

Details

- India was vying for a seat in the Asia Pacific category. Along with India, Bahrain, Bangladesh, Fiji and Philippines had also staked a claim in the same regional group.
- Its last tenure had ended on December 31, 2017 and in accordance with the rules, it was not eligible for immediate re-election since it had already served two consecutive terms.

UNHRC

- It is an inter-governmental body within the United Nations system
- It is responsible for strengthening the promotion and protection of human rights around the globe and for addressing situations of human rights violations and make recommendations on them.
- It was created by UNGA on 15 March 2006 to promote human rights globally.
- It had replaced former UN Commission on Human Rights.
- It is headquartered in Geneva, Switzerland.
- Members: UNHRC is made up of 47 UN member states which are elected by UN General Assembly (UNGA) with specific number of seats allocated for each region of the globe.
- The term of each seat is three years, and no member may occupy a seat for more than two consecutive terms.

Functions

- Members of the council work to engage countries on improving human rights.
- They make decisions ranging from exposing violations to recommending that UN Security Council make referral to International Criminal Court (ICC).
- UNHRC does not have authority to take action but can exert significant pressure on violating country.
- It can also set up special persons with mandate to investigate and report human-rights violations and abuses.

- The council works closely with the Office of the High Commissioner for Human Rights and engages the United Nations' special procedures.
- The General Assembly can suspend the rights and privileges of any Council member that it decides has persistently committed gross and systematic violations of human rights during its term of membership.

The power of non-alignment (Non-Aligned Movement)

Larger Background:

- The Non-Aligned Movement (NAM) was created and founded during the collapse of the colonial system and the independence struggles of the peoples of Africa, Asia, Latin America and other regions of the world and at the height of the Cold War. During the early days of the Movement, its actions were a key factor in the decolonization process, which led later to the attainment of freedom and independence by many countries and peoples and to the founding of tens of new sovereign States. Throughout its history, the Movement of Non-Aligned Countries has played a fundamental role in the preservation of world peace and security.
- While some meetings with a third-world perspective were held before 1955, historians consider that the Bandung Asian-African Conference is the most immediate antecedent to the creation of the Non-Aligned Movement.
- This Conference was held in Bandung on April 18-24, 1955 and gathered 29 Heads of States belonging to the first post-colonial generation of leaders from the two continents with the aim of identifying and assessing world issues at the time and pursuing out joint policies in international relations.
- This First Summit of the Movement of Non-Aligned Countries was convened by the leaders of India, Indonesia, Egypt, Syria and Yugoslavia. On April 26, 1961, the Presidents of the Arab Republic of Egypt (Nasser) and Yugoslavia (Tito) addressed the Heads of State and Government of 21 "non-Aligned" countries and suggested that, taking recent world events and the rise of international tensions into account, a Conference should be held to promote an improvement in international relations, a resistance to policies of force and a constructive settlement of conflicts and other issues of concern in the world.
- The Movement played an important role in the support of nations which were struggling then for their independence in the Third World and showed great solidarity with the most just aspirations of humanity.
- It contributed indisputably to the triumph in the struggle for national independence and decolonization, thus gaining considerable diplomatic prestige.

The ten principles of Bandung:

- Respect of fundamental human rights and of the objectives and principles of the Charter of the United Nations.
- Respect of the sovereignty and territorial integrity of all nations.
- Recognition of the equality among all races and of the equality among all nations, both large and small.
- Non-intervention or non-interference into the internal affairs of another -country.
- Respect of the right of every nation to defend itself, either individually or collectively, in conformity with the Charter of the United Nations.
- Non-use of collective defense pacts to benefit the specific interests of any of the great powers.
- Non-use of pressures by any country against other countries.
- Refraining from carrying out or threatening to carry out aggression, or from using force against the territorial integrity or political independence of any country.

- Peaceful solution of all international conflicts in conformity with the Charter of the United Nations.
- Promotion of mutual interests and of cooperation.
- Respect of justice and of international obligations

A Few More Notable Points:

- The movement has succeeded to create a strong front on the International level, representing countries of the third world in the International organizations on top of which the United Nations.
- Current Challenges facing the NAM include the necessity of protecting the principles of International law, eliminating weapons of mass destruction , combating terrorism, defending human rights, working toward making the United Nations more effective in meeting the needs of all its member states in order to preserve International Peace , Security and Stability, as well as realizing justice in the international economic system.
- On the other hand, the long-standing goals of the Movement remain to be realized. Peace, development, economic cooperation and the democratization of international relations, to mention just a few, are old goals of the non-aligned countries.
- In conclusion, The Non-Aligned Movement, faced with the goals yet to be reached and the many new challenges that are arising, is called upon to maintain a prominent and leading role in the current International relations in defense of the interests and priorities of its member states and for achievement of peace and security for mankind.

Editorial Analysis:

- It is important to note that the Non-Aligned Movement (NAM) and its precursor, the Bandung Afro-Asian conference in 1955, were examples of soft balancing by weaker states towards great powers engaged in intense rivalry and conflict.
- Since the NAM countries had little material ability to constrain superpower conflict and arms build-ups, these newly emerging states under the leadership of India's Jawaharlal Nehru, Egypt's Gamal Abdel Nasser and Indonesia's Sukarno, and later joined by Yugoslavia's Josip Broz Tito, adopted a soft balancing strategy aimed at challenging the superpower excesses in a normative manner, hoping for preventing the global order from sliding into war.

The Hidden Narrative of NAM:

- Oftentimes, the NAM is not credited enough for what it deserves. This is because by the 1970s, some of the key players, including India, began to lose interest in the movement as they formed coalitions with one or the other superpower to wage their conflicts with their neighbours.
- Further, some experts believe that the NAM has not been theorized by scholars properly.
- Further, the Western countries have often portrayed the idea of non-alignment as pro-Soviet or ineffective.
- The general intellectual opposition which the NAM faced was the result of the Western scholarly bias against a coalitional move by the weaker states of the international system.
- Some experts believe that this is very similar to how upper classes or castes respond to protest movements by subaltern groups in highly unequal and hierarchical societies.

The Context of NAM:

- Experts assert that it is often forgotten as to when the Bandung meeting took place. The Bandung meeting took place when the world was witnessing an intense nuclear arms race, in particular, atmospheric nuclear testing. The fear of a third world war was real. There were many crises which were

going on in Europe and East Asia, with the fear of escalation lurking. Further, the vestiges of colonialism were still present.

- In essence, one narrative which we should take into account is that the international system is hierarchical and the expectation is that the weaker states should simply abide by the dictates of the stronger ones.
- Despite all its drawbacks, the NAM and the Afro-Asian grouping acted as a limited soft balancing mechanism by attempting to delegitimize the threatening behaviour of the superpowers.

Impact on Nuclear Tests:

- It is important to note that the non-aligned declarations on nuclear testing and nuclear non-proliferation especially helped to concretize the 1963 Partial Test Ban Treaty.
- The non-aligned declarations also helped create several nuclear weapon free zones as well as formulate the Nuclear Non-proliferation Treaty.
- Currently, across the world, there are important developments to take note of: We see that the great powers are once again launching a new round of nuclear arms race and territorial expansion and militarization of the oceans.
- Thus, in response to this, a renewed activism by leading global south countries may be necessary to delegitimize their imperial ventures, even if they do not succeed immediately.
- Currently, we see that the freedom of navigation activities of the U.S. are generating hostile responses from China, which is building artificial islets and military bases in the South China Sea and expanding its naval interests into the Indian Ocean.
- As a consequence to this, smaller states would be the first to suffer if there is a war in the Asia-Pacific or an intense Cold War-style rivalry develops between the U.S. and China.

Concluding Remarks:

- Many questions arise. For example: What can the smaller states do? Can they develop a new 'Bandung spirit' which takes into account the new realities?
- Experts suggest that these small states could engage in soft balancing of this nature hoping to delegitimize the aggressive behaviour of the great powers.
- It is important to note that the rise of China and India, with their own ambitious agendas, makes it difficult that either will take the lead in organizing such a movement.
- In conclusion, experts suggest that more concrete initiatives may have to rest with emerging states in the Association of Southeast Asian Nations (ASEAN) grouping.

'Free Indo-Pacific' backed by Modi, Abe

Context

- India and Japan reinforced their bilateral relations at the 13th annual summit by enhancing strategic and defence cooperation.
- The two leaders agreed that India and Japan must work together for a rules-based and inclusive world order that fosters trust and confidence by enhancing communication and connectivity to ensure rule of law, unimpeded trade and flow of people, technology and ideas for shared prosperity.

Freedom of navigation

- It also referred to the necessity of safeguarding the freedom of navigation and the importance of upholding the UNCLOS (United Nations Convention on the Law of the Sea), a set of conventions that China has been accused of flouting in the South China Sea.
- They also announced the start of negotiations on an Acquisition and Cross-servicing Agreement, a logistics-sharing pact that would allow Japanese ships to get fuel and servicing at Indian naval bases.
    - Once signed, Japan's Maritime Self-Defence Force will be able to secure access to Indian naval facilities in the Andaman and Nicobar islands, which are strategically located close to the western Malacca Straits, a choke point for much of Japan and China's trade and fuel imports.

New areas of engagement between India, Japan

Cool EMS Service

- It is an initiative of Ministry of Communications
- Cool EMS service is one-way service from Japan to India which allows customers in India to import Japanese food items for personal use which is allowed under Indian regulations.
- Food items will be carried by Japan Post in special cool boxes containing refrigerant to preserve the quality of the food items and addressee will collect them from Foreign Post office, New Delhi in-person or through a messenger in the prescribed time frame
- At present this service is available in only in Delhi
    - ✓ It is driven by requests from industry representatives — in this case, the large Japanese diaspora in and around Delhi, Gurgaon and Neemran

- Both sides are striving to push a digital partnership, with the NITI Aayog being the nodal point on the Indian side, and the Ministry of Economy, Trade and Industry on the Japanese side. Areas of potential collaboration include AI, IoT, and big data.

India's exports and Imports

- India's exports to Japan have been petroleum products, chemicals, elements, compounds, non-metallic mineral ware, fish & fish preparations, metalliferous ores and scrap, clothing and accessories, iron and steel products, textile yarn, fabrics and machinery.
- India's primary imports from Japan — which too, are sluggish — are machinery, transport equipment, iron and steel, electronic goods, organic chemicals, machine tools, etc
- Japanese FDI inflows have been concentrated in the automobile, electrical equipment, telecommunications, chemical, and pharma sectors.
- As of October 2016, there were 1,305 Japanese companies registered in India, an increase of 76 companies (6% growth) as compared to 1,229 in October 2015, DIPP data show.

Currency Swap Agreement- India, Japan sign $75 billion deal

Context

- India and Japan signed a currency swap agreement worth $75 billion during Prime Minister Narendra Modi's visit to Japan

Currency Swap

- It typically involves the exchange of interest and sometimes of principal in one currency for the same in another currency.
- Interest payments are exchanged at fixed dates through the life of the contract.

- It is considered to be a foreign exchange transaction and is not required by law to be shown on a company's balance sheet.

Significance

- It was an important measure in improving the confidence in the Indian market and that it would not only enable the agreed amount of capital being available to India, but it will also bring down the cost of capital for Indian entities while accessing the foreign capital market.
- The swap arrangement should aid in bringing greater stability to foreign exchange and capital markets in India
- The prospects of India would further improve in tapping foreign capital for country's developmental needs.
- This facility will enable the agreed amount of foreign capital being available to India for use as and when the need arises.

Zia, cornered: on BNP facing setback in Bangladesh

Context

- A Bangladesh court doubled a jail term for imprisoned opposition leader Khaleda Zia from five to 10 years following a prosecution appeal.
- Zia was originally found guilty and sentenced to five years for embezzling money meant for an orphanage

Details

- These charges and conviction by the Court are impartial.
- So it is misleading to claim that the punitive actions ordered against the BNP's leaders by the judiciary are entirely due to any pressure from the ruling party.
- The BNP's last term in government, from 2001 to 2006, was marked by corruption, support for fundamentalism and repressive measures against the Opposition.

Politics of Bangladesh

- BNP had boycotted the parliamentary election in 2014 to give the process a veneer of illegitimacy, leaving the Awami League as the only major political force in contention.
- But the BNP's decision backfired. Bangladesh under Awami rule has recorded steady economic growth and has had creditable successes in welfare delivery and public health measures, seen tangibly in the lowered infant mortality and fertility rates and in sanitation.
- So BNP has formed an alliance, the Jatiya Oikya Front, with other minor parties, under the leadership of secular icon and civil society leader Kamal Hossain to bolster its fortunes in what looks like a lopsided battle against the entrenched Awami League.

But with lack of opposition in the democratic process, the govt is turning authoritative which could harm the structure of its polity.

- Prime Minister Hasina has increasingly tended to be authoritarian and impatient with critics.
- The crackdown on the BNP rank and file, with thousands of activists targeted by the police, is a sign of the government's overreach.

- A new digital security law, most ominously, has been passed with stringent punishment to anyone secretly recording state officials and spreading "negative propaganda" about the Liberation War, among other things.
- This manoeuvre is clearly intended to have a chilling effect on the Bangladeshi media.

Way forward

- The government must not pursue this quasi-authoritarian bent at a time when its leading opposition has been emasculated.
- This would only help delegitimize the formal aspects of democracy, such as elections, among the government's critics and the electorate.
- So it becomes imperative that for healthy democracy it is a must to allow for differences of opinion.

India invites Italy for defence production

Context

- India invited Italy to participate in the defence sector under the "Make in India" scheme.
- The invitation was extended during the high level discussions between visiting Prime Minister Giuseppe Conte and Prime Minister Narendra Modi, which also included mutual agreement to counter terrorist financing and state sponsors of terrorism.

Details

- Mr Conte also indicated Italy's support to India's quest for membership in the Nuclear Suppliers Group underlined Rome's support to India's membership in the global technology export groups.
- The visiting side also joined India in condemning terrorism and state sponsors of terrorism.
- Italy also joined India in demanding the UN Global Counter Terrorism Strategy, UNSC Resolution 1267 and other UN resolutions regarding prevention of terrorism and terror financing.

India-EU co-operation dialogue on Digital Communications

- The India-EU co-operation dialogue on Digital Communications will take place annually through appropriate mechanism within the existing framework of the India-EU Joint Working Group on ICTs which was set up in 2011
- India and the EU will work together to develop joint plans of action in the agreed areas of cooperation such as-future networks and emerging technologies, including 5G,IoT/M2Metc.,promotingR&D and innovation, network security, spectrum management, enhanced capacity development as well as policy and regulatory requirements among others.
- The development and widespread adoption of new ICT services and networks have powerful effects on economic and social development, supporting sustainable growth and competitiveness and contributing to addressing global societal challenges
- The two sides reaffirmed that regular bilateral dialogue with focused and dedicated approach is essential for steering constructive engagements and promoting future cooperation in the field of Digital Communications.

India has to balance pressures from U.S., China and Russia: Shyam Saran

Background:

- This article focuses on the balancing act that lies before India in so far as handling her bilateral relations between the U.S., China and Russia.

The Indo-Russia Dynamic:

Significance of the S-400 air defence system deal:

- Recently, India and Russia reached an agreement on the S-400 air defence system.
- This deal denotes India's desire to deepen defence cooperation with Russia. It also denotes that India is prepared to do this despite U.S. warnings that the deal could attract sanctions.
- The fact that this deal comes just a month after India signed the Communications Compatibility and Security Agreement (COMCASA) for better interoperability with the U.S. military, is a sign that India will not be forced or even persuaded into putting all its eggs in one strategic basket.
- It is believed that more defence deals with Russia will make it increasingly difficult for the U.S. to give India a waiver from sanctions under CAATSA.
- It is also important to note that there exists a general perception that Indian and Russian perspectives today differ on key issues in India's neighbourhood.
- This includes matters pertaining to Pakistan, Afghanistan and China, and also on India's strategic linkages with the U.S., including on the Indo-Pacific.
- These issues would certainly have figured in the various meetings.

On Afghanistan:

- Specifically, on Afghanistan, India has expressed support for the "Moscow format".
- The Moscow format's main objective is to facilitate the national reconciliation process in Afghanistan and secure peace in that country as soon as possible.
- In the "Moscow format", Russia involves regional countries and major powers in an effort to draw the Taliban into negotiations with the Afghan leadership. The U.S. has boycotted the initiative of the Moscow format, and has initiated its own dialogue with the Taliban.

India-Russia (Points of Convergence):

- Between India and Russia, there are obvious opportunities for cooperation.
- Russia is natural resources-rich, and India, is resource-hungry.
- It is important to note that whether or not these natural resources are exploited would depend on how well India's economic ministries, banks and business community understand the ground realities of doing business with Russia.
- It is important to note that even before CAATSA, there was confusion in India about sanctions against Russia.
- It is believed that both on CAATSA and on the U.S.'s proposed sanctions on Iran that go into force on November 4, 2018, India will need to make some tough decisions.
- Further, every potential India-Russia defence deal could be subjected to a determination on applicability of sanctions.
- Experts believe that imposing sanctions would hurt U.S. defence sales to India, which would defeat one of the principal objectives of the legislation. It is important to note that the India-U.S. strategic partnership is based on a strong mutuality of interests, but it was not intended to have the exclusivity of an alliance. India should not have to choose between one strategic partnership and another. The India-Russia dialogue should not get inextricably entangled in the India-U.S. dialogue.

Editorial Analysis:

- Currently, India's relationships with big powers like the U.S., Russia, China and Europe are increasingly being complicated by their rivalries with each other, the country needs to follow its traditional policy of strategic autonomy, focusing on its own vital interests.
- In the India-Russia dynamic, the most important peg for the relationship continues to be defence purchases and technology. Currently, Russia is willing to share things that are not available from other sources — for example, submarine technologies.
- It was a very well-considered decision for India to go ahead with the S-400 deal, which is one of the most effective missile systems. It must be noted that this further cements our relationship as it is a long-term platform.
- In the Indo-Russia relationship, it is important to note that energy could have also been a more important part of the relationship. But, unfortunately, this has not really taken off.
- Apart from a few licences and explorations announced, not much has happened on the energy front.
- The bigger substance of the relationship between India and Russia is strategic. If India's main challenge is going to be China and how it is reshaping the region and global landscape, then Russia will always be an important partner.

India-US (Post CAATSA)

- With reference to the India-US relationship, in light of the CAATSA (Countering America's Adversaries through Sanctions Act?), it is important to note that the U.S. hasn't formally given India a waiver.
- However, experts believe that since India is a major purchaser of U.S. military hardware, and that purchases are expanding, the U.S. won't want to undercut its relationship. Even if waivers come per transaction, it would make sense for the U.S. to waive sanctions.
- Currently, India is dealing with an unpredictable U.S. President, so we can't be sure of anything, and the decision is in his hands, but if rational choices are being made, then it doesn't help the U.S. to punish India for this purchase.

On the Iran Front

- With reference to oil purchases from Iran, experts believe that there could be a lower volume of purchases of oil from Iran, which may be enough to indicate to the U.S. that we take their concerns on board.
- From the experience of the last time there were sanctions on Iran oil purchases (2012-2013), the government had an option to circumvent these sanctions through a rupee-rial mechanism or through banks that don't have exposure to the U.S.
- Experts believe that this mechanism can be adopted this time around too.

The India-China Dynamic

- It is important to note that there is an expanding asymmetry of power between China and India.
- Where India sees its interests undermined by Chinese actions it must react, but not necessarily provoke a situation of conflict. On the Tibet issue, it is important for us to remember that for decades we followed a certain formulaic policy.
- A departure from this policy came when the Narendra Modi government decided to invite [the Sikyong, the head of the Tibetan government-in-exile] Lobsang Sangay to the Prime Minister's swearing-in and

give the Dalai Lama's visit to Tawang an official status, while the Arunachal Pradesh Chief Minister referred to [the State's] boundary with "Tibet, not China".

- Thus, as a consequence, actions taken, by design or inadvertently, gave the impression that India was moving away from what had been our consistent policy.
- Currently, the government has returned to that old policy, because their policy was not sustainable, given the asymmetry.
- On the issue concerning Doklam, India's agreement with China was limited to disengagement at the stand-off point.
- Thus, the Chinese have moved from what was a transient presence to a more permanent presence by the PLA. And on the road-building, they agreed to stop extending the road ahead to areas considered sensitive for India. Thus, here we see limited gains for India, but not insignificant ones
- Apart from the above points, it is important to note that at the Nuclear Suppliers Group in 2007, China didn't want to come out openly to oppose the nuclear waiver for India, but in 2016, they were proudly proclaiming that they blocked India's NSG membership and there was unfortunately nothing that India could do about it.
- Even on areas of convergent interests like climate change, a decade ago China worked with India, even conceding the leadership on the climate change negotiations. At the Paris summit, in contrast, China dealt directly with the U.S. to strike a deal and didn't consult India.
- So, the change is that China now benchmarks itself with the U.S., and doesn't look to emerging countries as much. And, at the same time, the U.S. is very different too.

Issues concerning QUAD

- Even when the idea of Quad was first spoken about in 2005, India was cautious about the idea.
- India was cautious because she didn't want to give the sense that she would be setting up a military alliance against China in the Indo-Pacific.
- The tsunami relief gave India a high naval profile as a country that showed a swift maritime response to the crisis, and the U.S. floated the idea of four democracies working together for a consultative forum.
- It is important to note that the Chinese objected even then.

Concluding Remarks:

- It is important to note that whether it is the U.S., China or Russia, each of these nations will try to push India in a direction it likes and it is for us to make our decision on how to balance these contrary pressures, and it is possible to do so.
- India will be an important component of the reshaping of the world, and we have room for manoeuvre and to expand our strategic space.
- It is important to note that India has faced these pulls and pressures all along, and India now has more economic and military power than in the past and can play a more strategic game. Thus, as a consequence, it makes no sense for the U.S. and the EU to isolate Russia in the long term, as China is likely to be the bigger challenge.
- It is also important to note a historical fact that whenever there is a rise in U.S.-China tensions, we have seen a lowering of tensions between India and China.
- Experts believe that the decision to sign the Communications Compatibility and Security Agreement (COMCASA) with the U.S., in September 2018 was a significant decision and means that India is not slowing down on its desire to strengthen its security relationship with the U.S.

Dhaka faces Rohingya ire on shift plan – Editorial

Larger Background:

Who are the Rohingyas?

- Rohingya are an ethnic group, largely comprising of Muslims, who predominantly live in the Western Myanmar province of Rakhine.
- They speak a dialect of Bengali, as opposed to the commonly spoken Burmese language.
- The United Nations Refugee Agency (UNHCR), places them among the "the most vulnerable groups of the forcibly displaced".
- Though they have been living in Myanmar for generations, Myanmar considers them as persons who migrated to their land during the Colonial rule. So, it has not granted Rohingyas full citizenship. According the 1982 Burmese citizenship law, a Rohingya (or any ethnic minority) is eligible for citizenship only if he/she provides proof that his/her ancestors have lived in the country prior to 1823. Else, they are classified as "resident foreigners" or as "associate citizens" (even if one of the parent is a Myanmar citizen).
- Since they are not citizens, they are not entitled to be part of civil service. Their movements are also restricted within the Rakhine state.

The Turning Point of 2012

- It is important to note that Myanmar was ruled by the military junta until 2011.
- Myanmar has been accused of ethnic cleansing in Rakhine by the United Nations.
- It deported thousands of Rohingya's to Bangladesh in the seventies and the citizenship law was also enacted by the junta.
- Things changed little for the Rohingya even after the political reforms in 2011 that eventually led to the first general elections in 2015.
- Sectarian violence between Rohingyas and Rakhine's Buddhist natives began flaring up in June 2012, following the rape and murder of a Rakhine woman in a Rohingya-dominated locality.
- The riots, which were triggered as a result, went on for almost a month with causalities on both the sides.
- Thousands of Rohingyas fled their homes and sought refugee in neighbouring Bangladesh, a Muslim-majority nation. Some of them sought asylum in South East Asian nations of Thailand, The Phillipines, Indonesia and Malaysia.
- This ethnic conflict flared up as religious violence spreading to the other provinces of Myanmar.

The Indian Context:

- Some experts believe that as India is the subcontinent's biggest nation and also a neighbour to both Bangladesh and Myanmar, as well as the country most likely to be affected if the numbers of Rohingya refugees continue to grow, India in fact should be showing the most initiative in this crisis.
- Experts have also suggested that it may be necessary for India to put its own concerns about repatriation on hold until it is able to work with both Bangladesh and Myanmar on the issue, preferably in a trilateral format.
- Finally, the government must also iron out internal contradictions on India's refugee policy.

- Even though India is not a signatory to any UN refugee convention, India has a proud tradition of giving a home to neighbours in distress: from Tibetans in 1960s to East Pakistanis in the 1970s, from Sri Lankans in the 1980s to the Afghans in the 1990s.
- In the past, Muslim-majority countries such as Bangladesh and Malaysia, at the receiving end of refugee flows from Myanmar numbering in the tens and even hundreds of thousands, have acted forcefully to prevent the Rohingya from entering their territories.
- However, in the year 2017, everything changed, with Bangladesh, Turkey, Malaysia, Indonesia and Pakistan at the forefront of international demands to stop the flight of refugees from Myanmar, in an effort to lower their suffering.
- Behind this change lay a number of causes. These causes include the humanitarian, political and economic emergency created by the influx of refugees among Myanmar's neighbours, to growing Muslim protests around the world at the treatment of the Rohingya.
- The crisis also presented an opportunity for politicians to claim leadership in an otherwise fragmented Muslim world by demanding relief and justice for the Rohingya.

Editorial Analysis:

- The Kutupalong camps near the beaches of Cox's Bazaar have emerged as the home for 13 lakh Rohingya refugees who were displaced from Myanmar by its military.
- It is important to note that the Myanmar military is the enemy back home for the refugees, but they have to remain alert for the weather shocks in Bangladesh as plans are underway to shift them to an islet that lies in the way of violent storms.
- Recently, Bangladeshi Foreign Minister Abul Hassan Mahmood Ali clarified at a meeting with a foreign media delegation that the Rohingya are not Bengalis and have a distinct identity that should be recognised.
- Currently, we observe that India and China are building homes in Rakhine to accommodate those who return home.
- However, no one on the ground is sure that they would return after the assault they experienced. The Minister clarified that storm-shelters had been built on the islet, located in the path of deadly annual cyclones that visit the region, to help the Rohingya settle there.
- However, it remains unclear whether any of the current refugees of Kutupalong would shift there voluntarily as the community leaders have disagreed with Dhaka's plan to leave the safe surrounding of what was once an elephant sanctuary.
- Further, it is important to note that the 2017 monsoon came as a big setback as most of the refugees had come with almost nothing and they had nowhere to stay.
- However, now at least most of them have a roof overhead, though conditions are far from perfect, with large families cramped in tiny hutments.
- Just a year ago, the hills near Kutupalong used to host wild elephants and leopards, but the tide of Rohingya refugees from across the Myanmar border has evicted the wildlife and removed the forest. On the denuded hills have emerged a gigantic slum colony supported mainly by Bangladesh.

Brief Timeline of Movement:

1. The history of Rohingya refugees is nearly four decades old. A small Rohinya colony had sprung up in the area in 1979 when the first wave of a military campaign targeted the community in Myanmar's Rakhine province.

2. Along with other ethnic groups such as the Karens and Kachins in eastern Myanmar, the Rohingya on the western coast have been at the receiving end of the mainly Buddhist military. The 2017 monsoons resulted in a huge spike in terms of Rohingya refugees.
3. Today, nearly 6,000 acres of land across this region, allows one to peer deep into Myanmar. This region is covered with homes made of bamboo and plastic sheets.
4. It is important to note that the displacement of the Rohingya is an enormous tragedy, but the quick response of the government of Bangladesh and support from countries like Turkey, India and Australia and relief organisations has helped in preventing the tragedy from going out of control.

Concluding Remarks:

- In conclusion, it is important to note that China and India have also pledged support.
- However, the real issue at hand, is the return of the refugees and ensuring justice for the victims who faced atrocities at the hands of the Myanmar military.
    - Currently, the ultimate fate of the 13 lakh refugees is being debated and it is not clear where they will finally reside.
    - It must also be pointed out that this growing population is altering the demography of Chittagong. There is fear of an epidemic outbreak

4. SOCIAL ISSUES

Charter Cities

- These are new cities with distinct rules that foster innovation and economic growth by utilizing tracts of uninhabited land for civic experiment
- These are characterized as "start-up cities" that experiment with reforms by breaking out of the existing state system.
- Since the nation-state is too big a unit to try out new rules, building from-scratch cities as the ideal site at which new rules and institutions are introduced to attract investors and residents.

Advantages

- A charter city provides the prospect of rapidly instituting rules consistent with economic development in an area that might otherwise take decades to do so
- It offers an overnight chance of a better life for the citizens of an impoverished country for whom long-distance immigration is too costly.

Concerns

- The host country is required to enact a founding legislation or a charter that lays down the framework of rules that will operate in the new city.
- A developing country can host the "Charter City" in its territory by "delegating" some of the responsibilities of administration to a developed country.
- This Promotes what seems to be a thinly disguised version of neo-colonialism? Poorer countries are urged to relinquish sovereignty over certain territories ostensibly in exchange for economic growth.
- What is most alarming about such thinking is the assumption that it is possible to create sanitized technocratic cities uncontaminated by politics.
- It ignores the pre-existence of multiple social and political claims over space in these supposed clean slates.

Indian experiments

- India's experience in creating new cities with parallel rules and governance systems has also been fraught with conflicts.
- Lavasa, a city near Pune which was developed by a private company, has been caught up in environmental disputes for many years.
- The Dholera Special Investment Region and Gujarat International Finance Tec-City have not really taken off.
- The various investment regions housed within the Delhi-Mumbai Industrial Corridor have also made slow progress.
- The initial idea of creating 100 new cities as "smart cities" has been reformulated as a programme for redeveloping merely a small portion of existing cities.

Aborted examples around the world

- "Charter Cities" in Madagascar in 2008 collapsed when the President who favored the idea was greeted by violent protests and finally removed in a coup.
- The next attempt, in the Honduras, also failed as the Supreme Court there, in 2012, declared the creation of "Charter Cities" to be unconstitutional.

Conclusion

- Despite the failure of many such new cities and private governance regimes, the allure of creating grand castles in the air refuses to die down.
- Such initiatives need to be challenged for both their ignorant and implausible premise as well as their iniquitous normative framework.

Jatapus

- The Jatapus are a designated Scheduled Tribe in the Indian states of Andhra Pradesh and Odisha.
- They speak Telugu
- The Jatapu predominantly work as farmers and forest laborers.

Me Too movement

Origins of the MeToo Movement:

- The MeToo hashtag gained currency a year ago in the U.S.
- In the U.S., women came out one after another to first corroborate allegations of sexual assault against Hollywood mogul Harvey Weinstein.
- There were many allegations levelled and each further account made it clear that there was a systemic pattern of abuse and silence.

What is Sexual Harassment?

- Sexual harassment is any unwelcome sexually defined behaviour which can range from misbehaviour of an irritating nature to the most serious forms such as sexual abuse and assault, including rape.
- The Sexual Harassment of Women (Prevention, Prohibition and Redressal) Act 2013 defines sexual harassment to include any one or more of the following unwelcome acts or behaviour (whether directly or by implication) namely:
  1. Physical contact and advances
  2. A demand or request for sexual favours
  3. Making sexually coloured remarks
  4. Showing pornography
  5. Any other unwelcome physical, verbal or non-verbal conduct of sexual nature.

What is sexual harassment at workplace?

Sexual harassment at the workplace is any unwelcome sexually defined behaviour which has the purpose or effect of unreasonably interfering with the individual's work performance or creating an intimidating, hostile, abusive or offensive working environment.

The Sexual Harassment of Women (Prevention, Prohibition and Redressal) Act 2013 states that if the following circumstances occur or are present in relation to, or connected with any act or behaviour of sexual harassment, it may amount to sexual harassment at the workplace:

1. Implied or explicit promise of preferential treatment in her employment in her employment; or
2. Implied or explicit threat of detrimental treatment in her employment; or

3. Implied or explicit threat about her present or future employment status; or
4. Interference with her work or creating an intimidating or offensive or hostile work environment for her; or
5. Humiliating treatment likely to affect her health or safety.

Taking a look at some important questions:
1. Can an aggrieved file a civil suit in a case of sexual harassment in the workplace?

Yes, a civil suit can be filed for damages under tort laws. The basis for filing the case would be mental anguish, physical harassment, loss of income and employment caused by the sexual harassment.

2. Under what circumstances can complaints be filed?
Complaints may be filed under the following circumstances:

- Cases involving individuals from the same organization
- Cases that concern third party harassment, which implies harassment from an outsider.

3. Where can I file a complaint?

- Internal Complaints Committee – if you are an aggrieved woman who has a relationship of work with that specific organization
- Local Complaints Committee – if you are an employee from an establishment where the Internal Complaints Committee has not been constituted due to having less than 10 workers. In the case that the complaint is against the employer himself/herself and the individual feels that the case may be compromised, she can also lodge the complaint in the LCC
- For instances where the LCC may not be immediately accessible, the Act instructs the District officer to designate one nodal officer in every block, taluka and tehsil in rural or tribal area and ward or municipality in the urban area, who will receive the complaint and forward it to the concerned LCC within 7 days.
- Local police station, in case provisions under the Indian Penal Code are applicable.

An Indian Context:

- India has signed and ratified the Convention on the Elimination of all Forms of Discrimination against Women (CEDAW).
- In 1997 as part of the Vishaka judgment, the Supreme Court drew upon the CEDAW and laid down specific guidelines on the prevention of sexual harassment of women at the workplace.
- The Vishaka guidelines defined sexual harassment and codified preventive measures and redressal mechanisms to be undertaken by employers.

A Look at Recent Updates:
1. Cases:

- Actor Tanushree Dutta had made certain allegations, in an interview in end-September, 2018. She had alleged harassment at the hands of actor Nana Patekar on a film set a decade ago.
- These accusations with respect to Nana Patekar fall in a large spectrum that range from inappropriate behaviour to acts of physical impropriety, while some date back to more than 15 years.
- There has also been the recent development where at last count, Minister of State for External Affairs M.J. Akbar had been accused of sexual harassment by at least 10 women journalists.
- In the immediate aftermath of this development, women have been speaking of their experiences and the trauma.
- Women have expressed themselves mainly on Twitter and Facebook.

- The testimonies that have so far been expressed have mostly concerned the film world and the mainstream media, and cover both the workplace and private spaces.
- These testimonies range from stories of assault to propositioning, suggestiveness to stalking.
- Currently in India, many questions arise. However, what is perhaps of even greater disquiet is that for so long an official silence was kept around what were, in many instances, open secrets.

2. A Note on the Due Process:

- Experts believe that there has been an utter failure of due process.
- Unfortunately, victims have written formal complaints and have also tried to get their organisations to act, but they have mostly found themselves facing a system that prefers to be complicit with the perpetrators.
- A couple of cases further illustrate this:
    a. In the case of the former TERI chairman, R.K. Pachauri, for instance, despite the victim filing a police complaint and compelling the organisation to initiate an inquiry, he not only continued in TERI for another year but was publicly supported by the board members.
    b. There is another case of rape that one can sight against the former Editor of Tehelka, Tarun Tejpal. In spite of being a "fast track" case, five years on, it has only seen a series of adjournments, with no sign of justice on the horizon.

It is important to note that these events, when added to the daily news cycle of multiple rapes, stalking, and harassment from all across the country, have resulted in victims of sexual crimes entirely losing faith in the justice system**.**

Experts believe that the failure of due process is the success of #MeToo. After decades of witnessing the impunity of the perpetrators, #MeToo is fuelled by an impunity of sorts of the 'victims'.

3. Certain areas that need clarity:

- Currently the floodgates have been opened and various kinds of stories are getting expose. These stories range from awkward flirting to physical assault.
- One more factor which is dividing the discussion into two is the nature of consent.
- It is important to note that what needs consent is often a function of society. To illustrate this further, we should take an example: many aspects of intersexual behaviour especially in the workplace that were acceptable 30 years ago, needless to say, are not tolerated any more.
- However, we observe that with the advent of smartphones and instant messaging, interpersonal behaviour and the definition of consent have undergone a major change in the last decade.
- Thus, stemming from this, it is imperative at this point to understand that consent is not static, but needs to be continuous and incremental.

4. A Reflection on the Present Situation:

- It is important to identify the exact transgression in the various cases that are being expressed, and to ensure that action is taken with due process.
- Further, it is important to note that no one can be deemed guilty only because he had been named and any punishment must be proportionate to the misdemeanor.
- It is also important to consider that many people, especially men, have raised concerns regarding false accusations. This remains valid, and there have been instances of this even in the last 10 days.
- No movement is perfect, and all battles have a certain amount of collateral damage.
- It is important that men be active allies in making the due process a fair and functional one in which all victims, including those of false allegations, can seek justice.

- It is imperative now that the building of a new, fair system that delivers brisk justice, critical to everyone's interests is initiated.
- In conclusion, we should note that there has been a systemic disregard for making workplaces and common spaces free of harassment.
- What is disturbing is that a thread that binds so many allegations now coming out is that many women thought that their words and feelings would be dismissed, their careers would suffer, or their families would pull them back into the safety of home.
- It is this fear of making a complaint that needs to be overcome in all workspaces, not only the media and the film industry.
- All of society needs to internalize a new normal that protects a woman's autonomy and her freedom from discrimination at the workplace.

Would the #MeTooIndia movement will change the way men behave?

- It is important to note that Judge Brett Kavanaugh was confirmed to the United States Supreme Court after allegations of attempted rape against him divided the country on his nomination.
- In India, we observe that politicians were mostly silent on the allegations against M.J. Akbar until public pressure and more allegations forced him to resign as Minister of State for External Affairs.
- Further, we see that actor Nana Patekar, who had the support of faceless online mobs, has not shown any remorse after the allegations against him.
- Also, both Mr. Akbar and Mr. Patekar have filed criminal defamation suits against their accusers.

Will behaviour of Men change?

- It's hard to be hopeful and say that the behaviour of men will change after the #MeToo movement.
- However, certain experts would like to believe that this will happen.
- The first and toughest step in fighting any oppression is to tell the oppressor that his power over you is not absolute and that it will not remain unchallenged.
- It is important to note that #MeToo has enabled women to take that step against workplace harassment. Such harassment had been normalized to the extent that most women believed that it was a price they had to pay to become a part of the workforce. It is believed that the next generation of women will not grow up with that flawed belief.
- It is also important to take cognizance of the fact that male dominance over women is systematic, institutionalized, and, above all, physical. Power has been demonstrated through threats of harassment and rape, sexual assault, acid attacks, domestic violence and making spaces of cohabitation a source of constant threat. It is in response to this challenge that women have taken to social media and it's working.

Some Noteworthy Developments:

- We have witnessed certain headline developments over the recent past. These headline developments include:

a) A film production and distribution company, Phantom Films, which has been dissolved;
b) A Minister of State was forced to step down;
c) Aamir Khan has 'stepped away' from Mogul after sexual misconduct allegations against a team member;
d) Journalists in more than one prominent media organisation have been asked to step down, or have volunteered to do so, after allegations against them;
e) Filmmaker Sajid Khan's Housefull 4 has been stalled;

f) Farhan Akhtar, along with several leading women directors, has decided not to work with harassers; and so on.

The Change that has occurred:

- However, it is important to note that beyond the headlines, invisible wheels have started turning.
- For example: Industries that had no sexual harassment policy or redress mechanisms are being forced to set up committees.
- Further, corporates are being forced to proclaim that they have zero tolerance for sexual harassment.
- Conversations around sexual harassment that were earlier hush-hush have become loud. The lasting impact of #MeToo, long after it stops making the headlines, will be on men who know that they don't have the guarantee of silence, that they will be made answerable for abuse, and that their 'boys club' won't be enough to protect them.

Empowering women: A Reality?

- Despite the number of men who have come out in support of #MeToo, certain experts do not believe that men will have a sudden change of heart. However, it is believed that their actions will change because #MeToo has forged an alliance of the sisterhood.
- Further, it is important to note that the modern economy needs women in the workforce. The #MeToo movement has made it evident that being on the wrong side is also bad for business. And economy is a language that men understand.
- In conclusion, #MeToo has given women the power to expose men, socially shame them, take away their jobs, and upset their private and professional lives. Power is a language that men understand. Fear, too, is a language that men will soon come to understand.

Would #MeTooIndia need something more to be a success?

- It is important to note that the #MeTooIndia movement alone will not change the way men behave, and that the success of #MeToo will depend on instilling faith in due process.
- It is important to note that the #MeToo movement has taken India by storm. On social and traditional media, women have come out with disturbing accounts of sexually predatory behaviour by various men, including famous ones.
- Further, these accounts describe a spectrum of male behaviour. This spectrum of male behaviour ranges from the obviously criminal (rape, assault, molestation) to the less physical and more verbal and non-verbal manifestations that may not be obviously criminal but are creepy and obnoxious.
- Also, these accounts have successfully blown away the veil of shame and taboo that hung over the issue of sexual harassment. This is a good development.

The Situation Post the Delhi gang-rape case:

- One should attempt at recalling the public mood following the 2012 gang rape case in Delhi.
- In the aftermath of the Delhi gang rape, an outraged nation demanded and got the death penalty for the rapists. Some of us expressed reservations at this and argued for better enforcement of existing laws, but the public mood was unrelenting.
- However, nearly six years after that case, brutal rapes continue to take place.
- At times, we as a society tend to forget that in the wake of a public outcry, passing laws is just the first step in tackling an obvious evil.

- However, *our criminal justice system — the police, the forensic and medico-legal facilities, our prosecutorial agencies and our courts — has not been provided with sufficient additional resources to give teeth to the law.*
- Experts believe that something similar is happening with the #MeToo movement.
- It is important to note that The Sexual Harassment of Women at Workplace (Prevention, Prohibition and Redressal) Act, which replaced the Vishakha guidelines, was passed after the Delhi 2012 case.
- Unfortunately, it has not been backed by additional resources.
- Experts believe that it is not just the lack of adequate resources that is a cause for concern; it is the view that levelling charges alone is enough to ensure that the accused faces punishment.

A Few Noteworthy Points:

- The principles of natural justice and other fundamental precepts of our criminal justice system, namely innocent until proven guilty and proof beyond reasonable doubt, cannot be done away with so easily.
- Experts believe that those narrating their plight on social media must be prepared to back it up with a formal criminal complaint. Otherwise they expose themselves to the possibility of facing action under our law for criminal defamation. If those accused of murder are entitled to a fair trial by due process, those accused of sexual harassment are also entitled to the same consideration.
- There have been instances of dowry where the complainant has implicated the entire family of the husband simply to teach them a lesson. Similarly, in cases of sexual harassment where the complainant has had a relationship with the accused, one should attempt at carefully examining the evidence before deciding to file a charge sheet or drop the case.
- It is a fact that in the absence of strong laws against perjury, and against filing false police complaints, sexual harassment laws are just as prone to abuse as any other law.
- Further, the proponents of #MeToo should also remember that in general, our criminal laws are moving towards stringent grounds for arrest and liberal grounds for bail.
- Thus, the kind of swift and harsh action that is being demanded against the accused in such cases may not be possible in most cases.
- Finally, it is believed that the success of #MeToo will depend on creating a sense of faith in due process, which, in turn, will depend on the capacity of our criminal justice system to have sensitive, fair, transparent and time-bound interactions with citizens.

Will #MeToo will have to find a way to transcend its relatively small, elite, urban sphere of influence?

- Currently, in our society we see that women have taken to social media to talk about being harassed, humiliated, assaulted and bullied by powerful men.
- Further, the sheer volume of stories and the unflinching solidarity for these women is unprecedented.
- On expected lines, there have been attempts made towards derailing, politicizing, discrediting, and misusing the movement. There have also been attempts at suppressing those testifying.
- Others are questioning what the movement stands for, its circumvention of due process, and what qualifies as harassment. It is too early to say if #MeToo will have far-reaching consequences, but it has the potential to dislodge oppressive attitudes towards women.
- Finally, experts believe that the day of reckoning is here: that those who could not see their complicity now can, and those who consciously abuse power cannot carry on unopposed.
- Experts believe that if change were ever possible, it is now. The extent of it will depend on the brutality of the resistance men put up, and its sustainability will depend on how the movement goes forward. For change to persist, fury will have to be followed by steadfastness, strategy, consensus building and concrete reforms.

- Finally, it is important to note that #MeToo will also have to find a way to transcend its small, elite and urban sphere of influence.

Samajik Adhikarita Shivir

- It is an initiative of Ministry of Social Justice & Empowerment
- There would be distribution of aid and assistive devices to divyang beneficiaries under ADIP

ADIP Scheme

- The main objective of the Assistance to Disabled persons for purchasing / fitting of aids / appliances (ADIP) scheme is to assist the needy disabled persons in procuring durable, sophisticated and scientifically manufactured appliances that can promote their physical, social and psychological rehabilitation, by reducing the effects of disabilities and enhance their economic potential.
- The aids and appliances supplied under the Scheme shall conform to Bureau of Indian Standards (BIS) specifications

Why are media regulators soft with scribes, asks SC

Context

- According to Protection of Children from Sexual Offences (POCSO) Act and the Indian Penal Code it is crime to disclose the identity of victims of sexual abuse, especially if they are children.
    - The naming of minor victims and victims of sexual assault or printing or using their name in a manner which makes their identity known is prohibited by the law.
- So, the Supreme Court has said media regulators tend to wear a "velvet fist inside a velvet glove" when it comes to dealing with journalists and media organizations whose actions, like revealing the identity of a rape survivor, make them criminally liable.

Laws

- Section 228 A of the Indian Penal Code lays down the provisions barring the disclosure of identity of the victim of certain offences.
    - "Whoever prints or publishes the name or any matter which may make known the identity of any person against whom an offence under section 376 (rape), section 376A (rape leading to death or making victim go into a permanent vegetative state), section 376B (sexual intercourse by husband upon his wife during separation) , section 376C (sexual intercourse by person in authority) or section 376D (gang rape) is alleged or found to have been committed (hereafter in this section referred to as the victim) shall be punished with imprisonment of either description for a term which may extend to two years and shall also be liable to fine."
- The only circumstances under which the identity can be revealed is either
    - by or under the order in writing of the officer-in-charge of the police station or the police officer making the investigation into such offence acting in good faith for the purposes of such investigation; or
    - by, or with the authorisation in writing of, the victim; or
    - where the victim is dead or minor or of unsound mind, by, or with the authorisation in writing of, the next of kin of the victim.

Grey Area

- In the Delhi gang rape case media persons and politicians to her home made clear almost every person in the vicinity of her residence in Delhi knew where she lived and what her real name was. Neighbors and acquaintances knew her real name.
- A member of the Rajasthan State Commission for Women also had to resign from her post after her selfie with a rape victim went viral

SC on Media houses reluctance to report

- The Supreme Court asked whether statutory bodies like the Press Council of India (PCI), Editors Guild of India, National Broadcasting Standards Authority (NBSA), and the Indian Broadcasting Federation (IBF) have no responsibility to inform the police when a journalist or a media outlet commits such a crime in the course of reportage.
- There is a law which says that a person has to be prosecuted when there is a violation of law, but you have not prosecuted a single person. If you do not prosecute when a crime has been committed, you cannot claim to be robust.
- The PCI counsel said in cases related to disclosure of identity of such victims, the power of the Council was limited to censure such publication and they also send their orders to the Directorate of Advertising and Visual Publicity (DAVP).
    - There is no point in saying that we have told the DAVP. Nobody knows it. You have to function under the law and the law says such persons (who discloses identity of victims of sexual assaults) have to be prosecuted

Examples from the world

- Section 228-A of Indian Penal Code is in Sync with laws abroad, such as UK's Sexual Offences (Amendment) Act, 1976 which guarantees anonymity to women who complain of rape.
    - These enactments are meant to encourage rape victims to complain against assaulters without having to facing public glare and the resulting humiliation.
- The USA, however, is an exception. The Supreme Court there has consistently struck down State laws which prohibit the media from revealing the name of the victim of sexual abuse.
    - However, media there have scrupulously observed a self-imposed code of not publishing the name of the rape victim

TN govt. notifies compensation for sexual abuse victims

Context

- The State government has notified the Tamil Nadu Victim Compensation Scheme for Women Victims/Survivors of Sexual Assault/Other Crimes, 2018 in line with the Supreme Court judgment
- The compensation was heard during Nipun Saxena Vs Union of India case

Compensation Paid

- Under the scheme, a rape survivor will get a minimum compensation of Rs. 4 lakh.
- In the case of a survivor of gang rape, the compensation would be Rs. 5 lakh.
- If the woman has lost her life, her dependant would be entitled to a compensation of Rs. 7 lakh.
- The maximum compensation that could be granted in cases of loss of life as well as gang rape is Rs. 10 lakh and the maximum compensation for rape could be Rs. 7 lakh, as per the scheme.

‘No trial in sewer death cases’

Context

- There was a study released by the Rashtriya Garima Abhiyan (RGA) — an NGO partnering with the Union Ministry of Social Justice for an ongoing manual scavenging census.
- It said a sample study of deaths due to sewer and septic tank cleaning since 1992, shows that First Information Reports (FIR) were filed in only 35% of the cases; none led to a trial or prosecution of any sort.
- Only 31% of affected families received cash compensation, while none received the rehabilitation or alternative jobs to which they are entitled by law.

Details

Concerns voiced

- Promised compensation and permanent jobs for family members were not fulfilled
- Government building toilets through its Swachh Bharat Abhiyan, has not taken into account the question of who will have to clean the septic tanks

The creamy layer of social justice

Editorial Analysis:

- There are certain expectations on any verdict on public policy by a constitution bench of the Supreme Court.

1. Firstly, it must hold whether the underlying principle(s) is/are consistent with the Constitution of India.
2. Secondly, such a verdict must end governance paralysis.
   - Critics believe that unfortunately, the court didn’t accomplish this objective in its recent verdict in Jarnail Singh v. Lachhmi Narain Gupta case.
   - In this case, the court held that the government need not collect quantifiable data to demonstrate backwardness of public employees belonging to the Scheduled Castes and the Scheduled Tribes (SC/STs) to provide reservations for them in promotions.

Crux of the Issue:

- The crux of the issue here is whether or not the ‘creamy layer’ among SC/STs should be barred from obtaining promotions through reservations.

- In its verdict in 2006 in the M. Nagaraj v. Union of India case, the Court had observed the need to collect quantifiable data.
- However, in the recent judgement, the court set aside the requirement to collect quantifiable data that was stipulated by its 2006 verdict in M. Nagaraj v. Union of India as it ignored the reasoning of a nine-judge bench in Indra Sawhney (1992) that any discussion on creamy layer "has no relevance" in the context of SC/STs.
- Critics allege that since the court has taken more than a decade to correct an anomaly in the Nagaraj case which brought in a creamy layer filter for promotions for SC/ST employees, this resulted in thousands of employees being denied their due promotions.
- Unfortunately, the matter cannot be treated as settled even today. This is because, a two-judge bench of the top court is considering a public interest litigation (PIL) filed by the Samta Andolan Samiti that seeks the removal of creamy layer among the SC/STs in job reservations.
- This is being done in spite of the fact that a nine-judge Constitution Bench had settled the matter long ago and also this matter has just been settled by a five-judge Constitution Bench.

Important Observations:

- The court merely removed the government's responsibility to collect quantifiable data on backwardness. However, the Court reasoned that the creamy layer test would be consistent with the equality principle.
- The court did not question reservations in promotions for SC/ST employees, but grappled with a different question: Which section or class among the SC/STs is more entitled?
- When one does a close reading of relevant constitutional provisions and the verdict in Indra Sawhney case, one finds that it is clear that the SC/STs are given job reservations not because they are poor but because they are excluded.

A Note on Article 335:

- The first part of Article 335 stipulates job reservations for SC/STs as a right of representation, not as a welfare measure.
- However, the creamy layer among SC/ST employees helps fulfil the second part of Article 335 that requires maintaining the "efficiency of administration".

Current Practices that need a relook:

- Currently, an SC/ST candidate does not have the right to reject reservations.
- Thus, he/she is merely required to state whether she belongs to the SC or the ST category and a response in affirmation automatically puts him/her in the queue for reservations.
- Further, it is also a punishable offence to withhold one's caste status while seeking government employment.
- Some experts believe that a simple administrative decision to allow SC/ST candidates to compete in the general category would have helped thousands to leave the space for the less privileged among them.
- Some have observed that the presence of the creamy layer works as a safety valve.

They assert that the rationale behind the demand to prohibit elite or privileged sections from accessing quota posts is that these sections are as well qualified as general candidates, if not more, and numerous enough to warrant their removal.

- However, there exists a catch here. A well-qualified and large SC/ST group having to compete as non-reserved candidates would corner a substantial number of open posts. At the same time, their less privileged cousins would fill the quota.
- Thus, in theory, SC/STs would end up getting more posts than their proportion in population. This begs the question on the rationale behind the litigation.

Manipur's women march, urge an end to 'mob justice'

Context

- For many nights over the past month, Manipur has been witnessing torchlight processions in the valley districts, with the mostly women marchers demanding, among other things, an end to mob violence directed at those accused of crimes.
- Over the last few years, at least three persons in Manipur, and two in neighbouring Nagaland, have been victims of mob lynchings.
- Pishakmacha, a middle-aged woman activist said, "We demand an end to mob crime in this State."
- Renubala, a young housewife from Thoubal district who is also participating in the marches said, "A man is not guilty unless a court says so. The government should prevent such mob trials and the beating to death of people. The family members of the accused persons also end up being banished from the locality for ever."
- On September 19, Manipur's cabinet decided to introduce 'The Manipur Mob Violence Control and Prohibition Bill, 2018' in the Assembly. Chief Minister N. Biren has said that mob violence will never be tolerated or condoned.

Mob Justice

- Mob justice is the verdict of the crowd by subverting the legal procedures and institution in situation of great injustice and mass suffering.
- This is totally against the law of the land, detrimental to society and catastrophic to personal and cultural liberty.

Role of an administrator in case of mob justice

If the mob is out for social justice we should help by arranging proper place to hold protests and engaging in dialogue with them and come to solution by consensus. Though particular action would depend on situation and context but few precaution which can be taken by administrator are:

- Take away the accused from scene, preferably in police protection.
- Talk with leaders of community or gathering, persuade them to not take law in their hand and warn them of possible legal consequences for same.
- Assure the gathering of strict, severe and immediate action. The taking of accused in custody can be first step in such situation.
- Overall administration should use his persuasive skills (using logic, reason and emotions) to convince crowd and disperse the gathering at earliest.

Conclusion

- We may be tempted to come to sudden conclusions regarding such cases. Justice delayed is justice denied no doubt but swift justice may not always be accurate. Evidences may be planted and witnesses may be bribed framing an innocent person.

- The Indian Judiciary emphasizes on "even if a hundred culprits go free, not a single innocent man should be punished". Sentences for such crimes are often severe, and it is our moral obligation to ensure that these sentences are handed to only the deserving.

The 'padwomen' of Telangana

- In Telangana's tribal belt, since February this year, adivasi women have been running four small units that produce sanitary napkins for free distribution to students in the tribal welfare hostels and ashram schools.
- Now, the region is set to get four more sanitary napkin production units, thanks to the demand for pads among young women in the adivasi community.
- As per the Commissioner ate of Tribal Welfare in Hyderabad, talks are on with NGOs and commercial sanitary napkin units to support adivasi youth in sanitary napkin production in districts where tribal population is high.
- The napkins will be supplied to women in the adivasi community who live in the tribal pockets near each manufacturing unit.
- As per the 2018 report of the National Family Health Survey, 62% of women use cloth instead of sanitary pads.
- In most of the adivasi villages in Telangana, women were found to be using cloth or ash for menstrual protection.
- The pad-making units were set up primarily to support adolescent girls and young women enrolled in schools

5. SCIENCE AND TECHNOLOGY

AG600-China

- The AVIC AG600, code named Kunlong also known as TA-600, is the largest amphibious aircraft in the world.
- The plane was unveiled by the state-owned Aviation Industry Corporation of China (AVIC).
- The aircraft, which has a maximum range of 4,500 km, is intended for fighting forest fires and performing marine rescues.
- At around the size of a Boeing 737, it is far larger than any other plane built for marine take-off and landing.
- The aircraft made its first flight in Zhuhai, Guangdong. The AG600 is one of China's three state-approved "big plane projects".

Artificial Moon by China

Context

- China is reportedly in the process of creating an "artificial moon" that would be bright enough to replace the streetlights in the south-western city of Chengdu by 2020.
- If the plan goes through, the so-called "illumination satellite" would orbit above the Chinese city of Chengdu and glow in conjunction with the actual moon.

Details

- The artificial or man-made moon is a satellite carrying a huge space mirror, which can reflect the sun light to the Earth.
- Chinese scientists plan to send three artificial moons into space in the next four years, and the moons — made from reflective material like a mirror — are expected to orbit at 500 kilometres above the Earth and light up an area with a diameter of 10 to 80 kilometres.
    - The moon orbits the Earth about 380,000 km from the Earth, while the man-made moon is expected to be put on an orbit within 500 km from the Earth
    - At an altitude as low as 500 km, and considering a diameter small enough to be economically viable, accuracy is key.
    - Missing the angle of reflection by even a few degrees would miss Chengdu by miles

Significance

- Lighting from the artificial moon covering 50 square kilometres in Chengdu could save about 1.2 billion yuan ($240 million) in electricity costs every year.
    - It would help in reduction of Pollution. The thermal power generation can be used and natural light can be used.
- It could also be used to light up areas experiencing power outages caused by natural disasters such as earthquakes
- Both the location and brightness of the human-made moon can be changed, and that it can be completely shut off if necessary

- And since the satellite is mobile, it can assist in disaster relief by beaming light on areas that lost power.

Concerns

- It would affect the human circadian system — the body clock.
  - These could have potential negative effects about sleep cycle
- China would suffer from Light pollution
- This could create dilemma in the nocturnal species
- It would require high spending and any technical errors the cost could amplify leading to losses

Previous Instances

- In the 1990s, Russia carried out an experiment called Banner, testing the idea of using a mirror to reflect the sun light to Earth. The mirror failed to unfold in space and the experiment was halted.
- In 1993, Russia sent up Znamya 2, a plastic mirror with a diameter of 65 ft. It managed to reflect a narrow beam of light
- Six years later, Russia launched Znamya 2.5, which was meant to be a larger mirror, but it did not deploy properly. The idea of sending up a giant mirror in the sky died with it.

BepiColombo

- BepiColombo is an unmanned joint mission of the European Space Agency (ESA) and the Japan Aerospace Exploration Agency (JAXA) to the planet Mercury on an Ariane 5 rocket.
- The spacecraft was named after Italian scientist Giuseppe "Bepi" Colombo
- The mission will perform a comprehensive study of Mercury, including its magnetic field, magnetosphere, interior structure and surface.

The mission comprises two satellites to be launched together:

- The Mercury Planetary Orbiter (MPO) to investigate the surface
  - ESA-developed Bepi will operate in Mercury's inner orbit
- Mio (Mercury Magnetospheric Orbiter, MMO) to understand the magnetic field of Mercury.
  - JAXA's Mio will be in the outer orbit to gather data that would reveal the internal structure of the planet, its surface and geological evolution.

What it intends to do?

- Mercury's extreme temperatures, the intense gravity pull of the sun and blistering solar radiation make for hellish conditions.
  - The probes are designed to cope with temperatures varying from 430 degrees Celsius (806 F) on the side facing the sun, and -180 degrees Celsius (-292 F) in Mercury's shadow.
- Mercury has a massive iron core about which little is known. Researchers are also hoping to learn more about the formation of the solar system from the data gathered by the BepiColombo mission.
- It will help better understand the environment of the planet, and ultimately, the origin of the Solar System including that of Earth.

MESSENGER probe

- "Mercury Surface, Space Environment, Geo chemistry, and Ranging"
- It was a NASA robotic spacecraft that orbited the planet Mercury between 2011 and 2015

- It studied Mercury's chemical composition, geology, and magnetic field.
- The only other spacecraft to visit Mercury was NASA's Mariner 10 that flew past the planet in the mid-1970s.

Chandra Telescope

Chandra X-ray Observatory

- NASA's Chandra X-ray Observatory is a telescope specially designed to detect X-ray emission from very hot regions of the Universe such as exploded stars, clusters of galaxies, and matter around black holes.
    - So it looks at black holes, quasars, supernovas, and the like – all sources of high energy in the universe.
- Chandra, launched in 1999, is well beyond the original design lifetime of 5 years.
    - In 2001, NASA extended its lifetime to 10 years. It is now well into its extended mission
- Previously known as the Advanced X-ray Astrophysics Facility (AXAF), is a Flagship-class space observatory
- The telescope is named after the Nobel Prize-winning Indian-American astrophysicist Subrahmanyan Chandrasekhar

Uniqueness

- The Earth's atmosphere absorbs the vast majority of X-rays, they are not detectable from Earth-based telescopes; therefore space-based telescopes are required to make these observations.
- So, Chandra is sensitive to X-ray sources 100 times fainter than any previous X-ray telescope, enabled by the high angular resolution of its mirrors.

Issue Area

- The cause of the safe mode transition (possibly involving a gyroscope) is under investigation
- Gyroscopes help spacecraft maintain proper orientation.

Safe mode

- It puts the telescope into a stable configuration until ground control can correct the issue and return the mission to normal operation
- The observatory is put into a safe configuration,
    - critical hardware is swapped to back-up units

Earth BioGenome Project

- An international consortium of scientists is proposing a massive project to sequence, catalog and analyze the genomes of all known eukaryotic species on the planet, an undertaking the researchers say will take 10 years, cost $4.7 billion and require more than 200 petabytes of digital storage capacity.
    - A eukaryote is an organism with a complex cell or cells
    - Prokaryotes are organisms, such as bacteria and archaea that lack nuclei and other complex cell structures.
- There are an estimated 10-15 million eukaryotic species on Earth. Of those, the team proposes sequencing 1.5 million.

Genome

- A genome is an organism's complete set of DNA, including all of its genes.

- Each genome contains all of the information needed to build and maintain that organism.
- It is the entire set of hereditary instructions for building, running, and maintaining an organism, and passing life on to the next generation.

Significance

- The BioGenome Project has the potential to transform our understanding life on Earth, according to the researchers, and pave the way for new innovations in medicine, agriculture, conservation, technology and genomics, among other fields.
- Genomics has helped scientists develop new medicines and new sources of renewable energy, feed a growing population, protect the environment and support human survival and well-being
- The Earth BioGenome Project will give us insight into the history and diversity of life and help us better understand how to conserve it.

100k Genome Asia project

- It is a step to create one of the largest repositories committed to sequence 1 lakh Asian genomes
- The project will develop in phases with an initial 1000 genomes, consisting of India and East Asian populations, sequenced within this year and the entire database to be ready by 2020

Other instances

- The so-called 1000 Genomes project is a collection of gene samples from across the world to capture the variety of genes that are typical to different population groups.
- The United Kingdom announced a plan in 2014 to create a bank of 100,000 genomes in the nation

Collaborators

- Bangalore-based Medgenome has teamed up with a southeast Asian consortium from India
- Other key collaborators in the project are Singapore's Nanyang Technological University, Singapore and Macrogen, a genetics diagnostic company in Seoul.

Significance

- Many diseases are linked to genes going awry; afflictions such as diabetes, cardiovascular diseases, cancer etc are usually the result of several genes malfunctioning, and often in a domino-like effect.
- Identifying such culprits are impossible without comparing genes, across individuals and population groups, in large numbers.
- Thus BRCA 1 and BRCA 2—genes associated with breast cancer—are found in as many as one-third of women. Several of them go on to live without ever contracting the cancer. These genes come in several varieties that can very on the level of families as well as ethnicities. Genome sequence studies are effective in studying such variations.
- So this helps understand the wide genetic variety in India's various ethnic groups and midwife customized medications for cancer and heart disease as well as identify possible new genetic aberrations that cause untreatable diseases.

Iffy Quotient

- Scientists have developed a web-based tool to help monitor the prevalence of fake news on social media platforms like Facebook and Twitter.

- Developed by researchers at the University of Michigan in the US, the tool uses a Platform Health Metric called the Iffy Quotient, which draws data from two external entities: NewsWhip and Media Bias/Fact Checker.
- NewsWhip, a social media engagement tracking firm, collects URLs on hundreds of thousands of sites every day and then gathers information on which of those sites have engagements on Facebook and Twitter.

How does it work?

- Iffy Quotient queries NewsWhip for the top 5,000 most popular URLs on the two social media platforms.
- Then the tool checks to see if those domain names have been flagged by Media Bias/Fact Check, an independent site that classifies various sources based on their reliability and bias.
- The tool divides the URLs into three categories based on the Media Bias/Fact Checklists:
    - "Iffy," if the site is on the Questionable Sources or Conspiracy lists;
    - "OK," if the site is on any other list, such as Left-Bias, Right-Bias or Satire;
    - "Unknown," if not on any list.

India Mobile Congress

- It is an event bringing together Mobile, Internet, and Technology companies on one platform.
- The theme for 2018 is "New Digital Horizons. Connect. Create. Innovate."
- The first edition was held in 2017.
- The second edition of IMC expects to bring together the largest congregation of global professionals from the digital ecosystem, encompassing 5G, Internet of Things (IoT), Artificial Intelligence (AI), Smart Cities, Start-ups in the technology space and allied industry sectors.
- The platform will see a greater International presence with the participation of policy makers and regulators from partner countries in the ASEAN (Association of Southeast Asian Nations) and BIMSTEC (Bay of Bengal Initiative for Multi-Sectoral Technical and Economic Cooperation) regions.

SKYSHIP

- The event will also showcase SKYSHIP, a 5G emergency rescue platform developed by Korea Telecom.
- The platform operates a balloon-shaped aircraft with a mobile communication centre on board, which can remotely control drones and robots to carry out search and rescue operations in case of disasters.
- In case of a disaster, you can float the SKYSHIP. It has an air interface to provide mobility coverage and surveillance. There is also a camera attached to it through which it can find missing people

Skin gel offers protection from some pesticides

Context

- Indian researchers have developed a gel which, when applied on the skin, can inhibit some pesticides from getting absorbed into the body, thus averting serious adverse effects and even death.

Concerns

- Organophosphate-based pesticides, which are commonly used by farmers in India, are toxic to the nervous system and heart, and can cause cognitive dysfunction.
- When esters present in organophosphate-based pesticides enter the body they bind and inhibit an enzyme (acetylcholinesterase or AChE) critical for nerve and muscle function. This causes neurological disorders, suffocation, paralysis, and even death.

- So in order to address this scientists have come up with the solution

Solution

- A team from the Institute for Stem Cell Biology and Regenerative Medicine (inStem), Bengaluru, an autonomous institute under the Department of Biotechnology, used a chemical reaction to convert the ester into acid by using a catalyst to make the pesticide inactive.
- The active ingredients of the gel are attached to chitosan (a substance found in the hard outer shells of crab and shrimp) so the gel does not penetrate the skin.
- The gel does not act like a physical barrier but chemically deactivates the pesticides thereby limiting the inhibition of the enzyme
- The gel can be washed off using soap.

Science, Technology and Innovation Advisory Council (STIAC)

Context

- The panel was formulated by Prime Minister Narendra Modi to advice on science and technology innovation.
- It had its first meeting to set some clear objectives and directions for a number of key projects.

Objective

- It would assess the status in specific science and technology domains, comprehend challenges in hand, formulate specific interventions, develop a futuristic roadmap and advise the Prime Minister accordingly.
- The panel will meet regularly to ensure adequate stimulus for technology innovation and entrepreneurship.

Syncells- Synthetic Cells

- MIT scientists have developed a method to mass produce robots no bigger than a cell that could be used to monitor conditions inside an oil or gas pipeline, or to search out disease while floating through the bloodstream.
- They are microscopic devices made of graphene and a tiny electronic device.

How does it work?

- The key to making such tiny devices, in large quantities lies in controlling the natural fracturing process of atomically-thin, brittle materials.
- The process, called "auto perforation", directs the fracture lines so that they produce miniscule pockets of a predictable size and shape.
- Embedded inside these pockets are electronic circuits and materials that can collect data.
    - The syncells can store information in a memory array, which can be read later using an electrical probe and erased for reuse

Robot trucks to help airlines save on ATF

Background: TaxiBots

- The Taxibot is a semi-robotic towbarless aircraft tractor developed by the Lahav Division of Israel Aerospace Industries. The tractor can tow an aircraft from the terminal gate to the take-off point (taxi-out phase) and return it to the gate after landing (taxi-in phase).
- The TaxiBot eliminates the use of airplane engines during taxi-in and until immediately prior to take-off during taxi-out, significantly reducing aircraft fuel usage and the risk of foreign object damage.
- The TaxiBot is controlled by the pilot from the cockpit using the regular pilot controls.

AVIATION FUEL

- Aviation fuel is the fuel used to power aircraft in flight. It must satisfy the unique requirements of both the engine and the airframe of the aircraft.
- Currently, the great majority (more than 99%) of aviation fuel used in both civil and military aircraft is jet fuel.
- A small quantity of aviation gasoline is still used in small aircraft. Early aircraft used motor gasoline to power their spark ignition engines because the aviation and auto worlds shared the same early engines.
- Aviation fuel is a specialized type of petroleum-based fuel used to power aircraft.
- It is generally of a higher quality than fuels used in less critical applications, such as heating or road transport, and often contains additives to reduce the risk of icing or explosion due to high temperature, among other properties.
- Most current commercial airlines and military aircraft use jet fuel for maximum fuel efficiency and lowest cost.
- These aircraft account for the vast majority of aviation fuel refined today, which is also used in diesel aircraft engines.
- Other aviation fuels available for aircraft are kinds of petroleum spirit used in engines with spark plugs (e.g., piston and Wankel rotary engines).
- Specific energy is the important criterion in selecting an appropriate fuel to power an aircraft.
- Much of the weight of an aircraft goes into fuel storage to provide the range, and more weight means more fuel consumption.
- Aircraft have a high peak power and thus fuel demand during take-off and landing.

Context: In news

- Delhi's Indira Gandhi International Airport is set to be the first airport in the country to commence commercial use of TaxiBots — semi-robotic tow trucks — to help airlines reduce use of air turbine fuel during taxiing.
- SpiceJet and Jet Airways will carry out a live test with these tow trucks, following which the aviation regulator DGCA will grant approval for their use.
- TaxiBot India introduced two semi-robotic tow trucks to IGI in September, which have since undergone several trials. Once the live performance evaluation with passengers onboard the aircraft is successful, the firm will sign commercial contracts with SpiceJet and Jet Airways.
- The advanced tow trucks will be used for narrow-body planes of the two airlines and will initially be deployed only for flights departing from IGI.
- The company is also in talks with Mumbai and Bengaluru airports for introducing similar operations.
- Planes taxi from parking bay to runway or vice versa using their own engines to provide thrust. However, an aircraft can be steered with both its engines off with the help of a TaxiBot, which lifts and holds the aircraft's nose wheel and transports it from the terminal to runway and back.

Soaring costs

- This can help airlines save jet fuel, one of the largest expenses for an airline, accounting for nearly 30% of total operational costs.
- It is estimated that at the current ATF rates, cost of fuel burnt during taxiing is ₹1,600 per minute for a narrow-body plane and ₹3,500 per minute for a wide-body plane.
- According to an analysis by former vice-president of Delhi International Airport Limited Ashwani Khanna, an average 15 minutes of taxiing at six of the busiest airports in the country is likely to cost airlines collectively ₹20 billion annually by 2021.
- These airports — Delhi, Mumbai, Chennai, Bengaluru, Hyderabad and Kolkata — handle nearly 65% of the air traffic in the country.

Is Facebook data breach serious?

Why in the news?

- On September 16, 2018, Facebook noticed an unusual spike in the number of times the platform's 'View As'feature was being used.
- This 'View As' feature allows users to see how their Facebook page will appear to another user.
- The 'View As' feature was introduced by Facebook as a privacy control feature.
- The 'View As' feature allows users to check the information they were sharing with others. However, this proved to be a point of vulnerability because of some bugs that were introduced in the software in July 2017.
- Subsequent to this development, on September 25, 2018, Facebook announced that it had identified this as a malicious activity in which the access tokens of 50 million users were appropriated by unknown hackers, and certain personal details possibly accessed.

Brief Note on Access token:

- An 'Access token' is a digital key that allows users to stay logged into Facebook on a device or browser without having to sign in repeatedly using their password.
- These Access tokens extend their reach to other apps or services that users sign into using their Facebook account.
- If hackers have the access tokens, they do not require passwords to get into Facebook accounts or apps like Instagram that utilise the Facebook login.

How did hackers take advantage?

- It is believed that while using the 'View As' feature, Facebook's video uploader tool also appeared on the page at times.
- This generated an access token that was not the user's but of the person the user was looking up.
- To illustrate this further, let's take an example: If Hacker A selected User B for 'View As,' and the video uploader appeared on the page, it generated an access token for User B which was then available to Hacker A.
- As a consequence to this, Facebook had to force the affected 50 million users, and an additional 40 million users who had used the 'View As' feature since last July (July 2017) to log in again so that their access tokens changed.
- It is believed that this breach is the largest in the history of the platform.

Action taken by Facebook

- Facebook has since said it has resolved the bugs.
- Also, pursuant to these developments, Facebook is said to be working with the FBI on the issue.
- Facebook has also informed the Irish Data Protection Commission, since the European Union's strict new data protection law states that it has to be informed within 72 hours if anyone in the European Economic Area is affected.
- The Commission has started a probe, and Facebook faces a fine that could go over a billion dollars.

The Gravity of the Threat:

- This breach again puts the spotlight on the vulnerabilities of Facebook,
- Facebook claims over two billion users and along with Google controls more than half of the global digital advertisement revenue.
- Facebook was caught on the wrong foot earlier this year, 2018 when the Cambridge Analytica scandal broke.
- The Cambridge Analytica episode revealed that data of up to 87 million users were harvested and used for political campaigning.
- Aside from the direct impact of private data being accessed, it is important to note that massive data sets allow for psychological profiling.
- This could lead to targeted political advertising and manipulation, especially at a time when crucial mid-term elections are due in the United States and in India.
- This also undermines the faith in the 'single sign-in.' The Facebook sign-in has been utilized by a whole set of services, from gaming apps to news apps, as a way to log in to their sites or apps based on the idea that large digital entities like Facebook and Google provide better security. This trust now stands shaken.
- While Facebook has reportedly refreshed the access tokens of all affected parties, the extent to which the hackers had access to connected third-party apps remains unclear.

Editorial Analysis:

- Barely six months after the Cambridge Analytica-Facebook data theft scandal, the world's largest social network, Facebook hit the headlines once again following yet another data breach that affected millions of users.
- In late September, 2018, Facebook announced that it had discovered a security breach that had compromised nearly 50 million accounts.
    - The figure was subsequently revised to 30 million.
    - Hackers had reportedly exploited flaws in the code for the 'View As' feature, which lets users see what their own profile looks like to someone else, to steal "access tokens".
    - By stealing them, the hackers were able to serially take over people's accounts.
    - While Facebook claims to have fixed the bug and reset the logins of all those affected, the episode has done little to restore people's confidence in Facebook's seriousness when it comes to protecting their data.
- Further, it is also unclear how much personal data have been stolen, and how that data may end up being used in ways that could harm Facebook users.
    - Incidentally, tech commentators have speculated that it was the European Union (EU)'s General Data Protection Regulation (GDPR), which came into force this May, 2018, that forced Facebook to go public with the breach so promptly, even before the full extent of the damage could be assessed.

- The GDPR's stringent guidelines require companies to make such events known within three days of their discovery.

Concluding Remarks

- In general, citizen-consumers have had to choose between two equally unsatisfactory options:
    1. either resign themselves to a post-privacy world or
    2. be perpetually scrambling to reskill themselves in order to be able to safely navigate the complicated and ever-evolving (mine)field of data privacy and safety.
- Following the latest data breach, there were numerous articles educating users on how to secure their Facebook account and data from hackers.

Questions arise: Should the onus of securing data be put primarily on the users, with hardly any criminal liability for the platform?

After all, this is not a 'parking at owner's risk' scenario, where, after a break-in, one still had some recourse in the form of the local police.
Finally, it is important to note that in the case of tech behemoths such as Facebook and Google, the power asymmetry vis-à-vis the ordinary user is so astronomical as to render the very notion of redress laughable.

- However, this could soon change, thanks to the GDPR stick being wielded by the EU.
- For example, Facebook faces a potential penalty of €20 million or 4% of its global revenue (whichever is higher) if the EU regulator investigating the data breach finds a GDPR violation in connection with the incident.
- Finally, if data security for ordinary users is to become something more than a seminar topic, then an equitable regulatory regime such as the GDPR must become the universal norm, in force beyond the EU jurisdiction as well.

Laser pioneers win Physics Nobel

- Three scientists have won the Nobel Physics Prize, including the first woman to receive the prestigious award in 55 years, for inventing optical lasers that have paved the way for advanced precision instruments used in corrective eye surgery.
- Arthur Ashkin of the U.S. won one half of the nine million Swedish kronor (about $1.01 million) prize, while Gerard Mourou of France and Donna Strickland of Canada shared the other half.
- Ashkin, who made his discovery while working at AT&T Bell Laboratories from 1952 to 1991, is the oldest winner of a Nobel prize, beating out American Leonid Hurwicz who was 90 when he won the 2007 Economics Prize.
- Meanwhile Mr. Mourou, 74, and Ms. Strickland ,59, — only the third woman to win the Physics Prize — won for helping develop a method to generate ultra-short optical pulses, the shortest and most intense laser pulses ever created by mankind.
- Their technique is now used in corrective eye surgery.
- Mourou was also involved in building the Extreme Light Infrastructure (ELI) project and what is believed to be one of the world's most powerful lasers, the Apollon, in developments that researchers hope will one day help deal with nuclear waste, treating tumours and clearing debris in space.

Optical tweezers

- Ashkin, 96, was honored for his invention of "optical tweezers" that grab particles, atoms, viruses and other living cells with their laser beam fingers.
- With this he was able to use the radiation pressure of light to move physical objects.
- A major breakthrough came in 1987 when Mr. Ashkin used the tweezers to capture living bacteria without harming them.
- Optical tweezers are scientific instruments that use a highly focused laser beam to provide an attractive or repulsive force, depending on the relative refractive index between particle and surrounding medium, to physically hold and move microscopic objects similar to tweezers.

Augmenting life (Nobel Prize Winners)

A Brief Note on the 2018 Nobel Prize in Chemistry:

- Three scientists shared this year's Nobel Prize in Chemistry.
- The 2018 Nobel Laureates in Chemistry have taken control of evolution and used it for purposes that bring the greatest benefit to humankind.
- This year's Nobel Laureates in Chemistry have been inspired by the power of evolution and used the same principles, i.e. genetic change and selection to develop proteins that solve mankind's chemical problems.

Important Applications:

- Enzymes produced through directed evolution are used to manufacture everything from biofuels to pharmaceuticals.
- Antibodies evolved using a method called phage display can combat autoimmune diseases and in some cases cure metastatic cancer.

Contribution from each Scientist:

- Frances H. Arnold, an American who was given one-half of the prize, used 'directed evolution' to synthesise variants of naturally occurring enzymes, which could be used to manufacture biofuels and pharmaceuticals.

- The other half of the prize went to George P. Smith, also of the U.S., and Sir Gregory P. Winter, from the U.K., who evolved antibodies to combat autoimmune diseases and even metastatic cancer through a process called phage display.

These prizes reaffirm the importance of the concept of evolution in our understanding of life as among the most profound of forces we are exposed to.

Note on the Physiology and Medicine Prize:

- The Physiology and Medicine prize has gone to the American James P. Allison and Tasuku Honjo, from Japan.
- These scientists have shown how different strategies can inhibit the metaphorical 'brakes' acting on the immune system and thereby unleash the system's power on cancer cells to curb their proliferation.
- These immunologists have enhanced the power of the body's immune system to go beyond its natural capacity.

Note on the Physics Prize:

- Arthur Ashkin, from the U.S., has been awarded one-half of the Physics prize.
- His work now enables us to individually hold, study and manipulate tiny bacteria and viruses using 'optical tweezers'.
- It is important to note that in many laboratories, optical tweezers are used to study and manipulate subcellular structures such as DNA and little molecular motors.

What is Optical holography?

- Optical holography is a method for storage and displaying a three-dimensional image of an object.
- In Optical holography, thousands of optical tweezers can operate together on, say, blood, to separate damaged blood cells from healthy ones. This could be a treatment process for malaria.

Work on Ultra-Short pulses of laser light:

- Gérard Mourou, from France, and Donna Strickland, from Canada, who share the other half of the Physics prize, have been honoured for their methods to generate ultra-short pulses of laser light.
- The work, published in 1985, went into Ms. Strickland's PhD thesis and soon revolutionised the field. Among its uses are in Lasik surgery in ophthalmology, and in making surgical stents.

Concluding Remarks:

- More recently, attosecond lasers have even made it possible to observe individual electrons.

What is an attosecond?

An attosecond is a millionth of a picosecond, or 10−18 of a second. Light travels 0.3 nanometers in an attosecond, which is roughly the spacing between atoms in a solid.

- In conclusion, the prize-winners have drawn upon the fundamental forces in science and reached out beyond human physical limitations.
- From a gender parity perspective, it is important to note that two of the six laureates – Donna Strickland and Frances Arnold – are women.
- They are only the third and fifth women Nobel laureates in Physics and Chemistry, respectively, since the inception of the Nobel prizes.

- This statistic gives reason for the community of scientists to introspect over what makes an enabling environment for women to practice science

6. SECURITY AND DEFENSE

Barak 8

- Barak 8 (the Hebrew word for Lightning) also known as LR-SAM or as MR-SAM.
- It is surface-to-air missile (SAM), designed to defend against any type of airborne threat including aircraft, helicopters, anti-ship missiles, and UAVs as well as ballistic missiles, cruise missiles and combat jets.
- It can simultaneously engage multiple targets with 360 degree coverage
- Barak 8 was jointly developed by Israel Aerospace Industries (IAI), India's Defence Research & Development Organization (DRDO), Israel's Administration for the Development of Weapons and Technological Infrastructure, Elta Systems, Rafael and other companies.
    - The IAI is Israel's largest aerospace and defence company.
    - It develops, manufactures and supplies defence systems including anti-missile, aerial systems and intelligence and cybersecurity systems.

Context

- State-owned Israel Aerospace Industries (IAI) has won $777 million contract for the supply of Barak 8 long-range surface-to-air defence missiles and missile defence systems for the Indian Navy

Feihong-98 (FH-98)

- It was developed and modified by the China Academy of Aerospace Electronics Technology
- It is now the world's largest unmanned transport aircraft, with a maximum payload of up to 1.5 tonnes
- The FH-98 has a maximum takeoff weight of 5.25 tonnes, a maximum capacity of 1.5 tonnes and 15 cubic metres, a flight height of 4,500 metres, a cruising speed of 180 kilometers per hour, and a maximum range of 1,200 kms

Global Counter-Terrorism Forum's (GCTF)

- Launched in 2011, the GCTF is an informal, a-political, multilateral counterterrorism (CT) platform that has strengthened the international architecture for addressing 21st century terrorism.
- It is an international forum of 29 countries and the European Union with an overarching mission of reducing the vulnerability of people worldwide to terrorism by preventing, combating, and prosecuting terrorist acts and countering incitement and recruitment to terrorism
- The GCTF develops Good Practices and tools for policy-makers and practitioners to strengthen CT civilian capabilities, national strategies, action plans and training modules.
- India is part of this organisation.

Goa Maritime Symposium

- It is a forum towards fostering friendly relations with the maritime neighbours
- The GMS was conceptualised and first held in Nov 2016 aimed at establishing academic excellence as well as sharing of ideas among India's maritime neighbors' by facilitating interaction between senior representatives of navies and maritime agencies in the IOR; and it plays a constructive role in bringing together stakeholders involved in evolving strategies, policies and implementation mechanisms in the maritime domain.

Naval War College Journal

- It was an academic compendium with ideas and papers from writers and thinkers on maritime strategy and security

Lokayan 18

- It was a seven month long voyage to Europe with the theme of 'Sailing through different Oceans and Uniting Nations'.
- The ship will visit 15 ports in 13 countries, covering a distance of more than 15,000 nautical miles.
- INS Tarangini sailed across the Arabian Sea, Red Sea, Suez Canal, Mediterranean Sea, Strait of Gibraltar, North Atlantic Ocean, Bay of Biscay, English Channel and North Sea, right up to Norway before commencing her homeward passage.
- It also participated in the culminating event of the 'Three Festival Tall Ships Regatta' at Bordeaux in France and the 'Tall Ships Races Europe 2018'.

INS Tarangini

- It is Indian Navy's first Sail Training Ship (STS).
- It was built in Goa Shipyard and commissioned on 11 Nov 97.
- The name Tarangini is derived from the Hindi word 'Tarang' meaning waves; thus Tarangini means 'the one that rides the waves'.
- The ship is a three-masted 'Barque' and is square rigged (i.e. sails are perpendicular to the centerline) on the fore and main mast; and fore and aft rigged (i.e. sails are along the centerline) on the mizzen mast.
- INS Tarangini has been extensively deployed for long voyages away from her base port of Kochi, which includes one circumnavigation of the globe (2003-04) and three previous 'Lokayans' (2005, 2007 and 2015).

Mehar Baba prize

Context

- Indian Air Force has announced India's first competition in the defence sector, the Mehar Baba Prize.

Details

- In the wake of floods, cyclones and other natural disasters across the country, the IAF is holding a competition for participants to build a swarm of 50 drones to lead Humanitarian Aid and Disaster Relief (HADR) operations.
- The competition, in line with Make in India, is spread over three phases, from ideation to production.
- The IAF will pick up to three winners, each of whom will get Rs 10 lakh in prize money and an opportunity to co-produce Rs 100 crore order for induction of the drones to the Force.

Background

- The Mehar Baba Prize has been named after Commodore Mehar Singh, DSO MVC, who was often called Mehar Baba. He was commissioned as a Pilot Officer in 1936 at the Royal Air Force College, Cranwell, UK, and was posted to No. 1 Squadron — the only squadron then based in North West Frontier — in the Royal Indian Air Force.
- After Independence, Mehar Baba became the first to land in J&K's Srinagar, Poonch, Leh, Ladakh and also in Daulat Beg Oldie, which was the highest altitude airstrip in the world.

NITI Lecture Series

- The 'NITI Lectures: Transforming India' was inaugurated by the Prime Minister Shri Narendra Modi on August 26, 2016 and since been held annually, featuring eminent speakers from across the world.
- With the vision of disseminating cutting-edge, innovative ideas in development policy to India, the NITI Lectures are attended by the Government's top decision makers, including members of the Cabinet and senior officials across ministries and departments
- Through the lectures, NITI Aayog has been bringing policy makers, academics, experts and administrators of global repute to India.
- The aim of the series is to enable learning, both at the Centre & States, from successful development practice world over.

4th Edition of NITI Lecture Series in 2018

- The theme this year is "AI for ALL: Leveraging Artificial Intelligence for Inclusive Growth".

Wing Loong II

Context

- China and Pakistan have reportedly reached an agreement for the co-production of 48 Chinese-made unmanned aerial vehicles.

Details

- The drone can be used for both combat and surveillance missions.
- The Wing Loong II is an improved version of the Wing Loong 1 Unmanned Aerial Vehicle. Falling in the category of Medium Altitude Long Endurance, it is manufactured by the Chengdu Aircraft Industrial (Group) Company.
- The UAV has been developed primarily for People's Liberation Army Air Force and export.
- The concept of the Wing Loong II was unveiled at the Aviation Expo China in Beijing in September 2015.

A flight path with obstacles (India's drone use policy)

Indian Context:

With the publication of the drone regulations in late August 2018, the Ministry of Civil Aviation has attempted to give some structure to the development of drone infrastructure in India.

- What are drones?
- Drones are a technology platform which has wide-ranging applications from photography to agriculture, from infrastructure asset maintenance to insurance. Drones range in size from very small and those that can carry multiple kilograms of payload.

The Ministry of Civil Aviation has been working for several years to establish a world leading drone ecosystem in India. To that end, it was necessary to develop global standard drone regulations that would permit, will appropriate safeguards, the commercial application of various drone technologies.
India's regulations separate drones into five categories. These categories are

1. nano,
2. micro,
3. small,
4. medium and
5. large.

There is very little regulation for flying a nano up to 50 metres height, except for not flying near airports, military sites or in segregated airspace.

A Long Procedure

- For drones that fall under the micro category, operators have to start with the application for a unique identification number (UIN) for each drone. There is a long list of documentation including security clearances from the Ministry of Home Affairs (MHA) in several cases.
- Once the UIN is obtained, operators get to move to the next step. They have to apply for an Unmanned Aircraft Operator Permit (UAOP). This implies more forms.
- To compound matters, in the current system, even to fly a micro drone below 200 ft, users have to intimate the local police station 24 hours prior. (One application requires that it be submitted with seven copies.)
- These provisions curb manufacturers of drones as well as technologists and researchers who have to test fly these drones frequently, often several times a day. The very structure of these regulations makes the possibility of a red tape-free flight very slim. There is also a chance that operators could be slapped easily with real and perceived violations.
- Critics further point out that although the regulation provides a list of identified areas for testing and demonstration, the locations provided are so far from technology and development hubs that it is unclear how practical these will be. Although one must concede that flying drones in these areas comes with less paperwork.

International Perspective: Switzerland

- "Agroscope", is the 'Swiss centre of excellence for agricultural research', in Nyon, Switzerland.
- Here, agriculture scientists fly a drone to study nitrogen level in leaves, not for a farm as a whole, but for each individual plant.
- The drone takes a large number of images, which after being fed into a computer model with data on a) soil condition, b) weather, c) time of the year and other information, helps analyse which plants are deficient in nitrogen.
- This technique enables farmers to add corrective fertilizer only where necessary.
- "Sensefly", which is a Swiss drone manufacturer, has customers around the world, whose use of drones have resulted in higher yield.
- This higher yield has been more than 10% in observed case studies. Further, significantly lower usage of fertilizers and herbicides have been observed.

International Perspective: China and USA

- China's drone economy, which includes both manufacturing and development will be worth $9 billion in 2020.
- The U.S's commercial drone market is expected to be $2.05 billion by 2023 (According to Global Market Insights).
- For India to compete against these giants, it already has a lot of catching up to do.
- Filing a series of applications in multiple copies and waiting for various government departments to respond is not the best way to get started.

Concluding Remarks:

- One must concede that the security and privacy risks of allowing drones to fly in an unregulated manner are high.

- Importantly, it may be recalled that in August 2018, a drone was used in an attack on Venezuelan President Nicolás Maduro during a public meeting. This development underscores the threat that drones can cause.
- India needs to figure out a more balanced manner of regulation.
- The current rules are a start, but only in the sense that they free all drones from their previous illegality. The real impact of drones will be in the many applications they will be put to. Agriculture is just one such. They are likely to be the disaster prevention systems, rescue operation leaders, and even public transport providers in the not too distant future.
- It is believed that missing out on working on these applications early enough will likely have serious repercussions to India's future competitiveness in the field.

By extension (NRC Assam)

- The final draft of the National Register of Citizens for Assam was recently released. Just three months after this was released, the Honorable Supreme Court of India has tagged a petition seeking a similar process for Tripura.
- This petition, now tagged to the Assam case, was heard by a bench headed by the Chief Justice of India, Ranjan Gogoi.
- The petitioners, in this particular case are a group of activists from Tripura, who sought a process to identify illegal migrants and deport them from the State.

What was the position of the petitioners?

- The petitioners maintained that the influx of such migrants amounted to "external aggression" and that they have turned the tribal people into a minority in their own native land.
- It is important to note that much of the migration into Tripura occurred before the creation of Bangladesh.
- The petition takes recourse to the 1993 tripartite accord signed by the Government of India with the All Tripura Tribal Force that asked for the repatriation of all Bangladeshi nationals who had come to Tripura after March 25, 1971 and are not in possession of valid documents authorizing their presence in the State.
- In fact, the petitioners go even further than the terms of the accord to demand that the cut-off date for the recognition of migrants should be July 1949, based on Article 6 of the Constitution.
- It is important to note that these demands must be contextualized in the light of the developments in Tripura over the last four decades.
- As early as in 1979, after years of struggle, the tribal people of the State had gained special autonomy provisions.
- These Special Autonomy Provisions include

1. a) The institution of the Tripura Tribal Areas Autonomous District Council and b) recognition of their spoken language, among other assurances.

Since these developments, the empowerment of the council and the protection of tribal rights have steadily eroded the significant tribal versus non-tribal differences that once existed in the State.

Concluding Remarks:

- In conclusion, it is important to note that over the last three decades, multiple insurgent groups have ended violent struggles. These violent struggles have either quelled by force of law or as a result of conceding vital demands for preserving the gains made by earlier tribal struggles.

- Further, the judicial-bureaucratic process of hearing a petition to seek the deportation of long-settled migrants is beset with problems.
- These problems are not dissimilar to those already being faced in Assam.
- Currently, the question of what awaits the four million people whose names did not figure in the final NRC draft, and have been given a second chance to prove their antecedents, still hangs in the balance.
- However, it is important to note that the NRC process in Assam has an overall popular legitimacy across most political parties.
- Experts believe that there is no answer to how the deportation process could (or should) proceed. Embarking on any such bureaucratic exercise without considering its deep humanitarian impact will only create new fault lines.
- This is especially true for a State like Tripura where there is no such unanimity of views on the NRC process.
- It must be noted that this will undo years of work to bring about a reconciliation between Bengali-speaking and tribal people. The Supreme Court should be cognisant of this while hearing the petition.

BSF gets fortified watchtowers

Context:

Nearly 350 watchtowers made of tin and mud and with thatched roofs have been replaced with concrete structures along the International Border with Pakistan in Jammu

Issues along the border:

- The 740-km Line of Control in Kashmir is under the operational control of the Army and the 192-km International Border in Jammu is manned by the BSF.
- This year, 13 BSF soldiers had been killed along the border, the highest casualty in the past five years.
- The BSF recently operationalized the comprehensive integrated border management system (CIBMS) along a 11-km stretch on the border to detect and stop infiltration from Pakistan.
- Through advanced sensors and radars, the CIBMS has the capability to detect any type of movement on ground, water or below the ground.
- The CIBMS is a new mode of guarding the border without exposing the jawans to bullets from the other side.

Personnel safety:

- The new structures would help protect Border Security Force (BSF) personnel from targeted attacks from across the border.
- The observation towers are located at a height and make the BSF personnel prone to attack from snipers in Pakistan. And the tin structures were not robust enough in case of firing from the other side. The proposal was cleared in 2015 by a high-level committee.

There are plans of shifting to quick reaction teams that will take action as soon as any intrusion occurs. Men will then get respite from standing guard in inclement weather and this will be an effective and cheaper way of protecting the border.

7. ENVIRONMENT AND ECOLOGY

Calvin Klein fragrance could be used to lure killer tiger

Context

- Wildlife authorities in India trying to catch a tiger thought to have killed at least nine people say they are considering the use of an unconventional weapon: Calvin Klein's Obsession cologne.

Details

- The perfume has chemicals that mimic Civetone, a pheromone (A pheromone is a chemical that an animal produces which changes the behavior of another animal of the same species) secreted by civets, which could possibly attract the tigress or its cubs.
- The idea stems from a 2003 experiment in Bronx Zoo where researcher Pat Thomas tested 24 perfumes on cheetahs to gauge whether the scent can kept them curious and engaged.
- In 2015 using the cologne, officers have managed to trap a leopard in Mandya in Karnataka, and a year later, captured a tiger in Gudalur in Tamil Nadu.
- This would just be an experiment, with no real guarantees of luring the tigress for tranquillization.

Champions of the Earth

- Champions of the Earth, the UN's highest environmental honor, celebrates outstanding figures from the public and private sectors and from civil society whose actions have had a transformative positive impact on the environment.
- Launched in 2005, Champions of the Earth has recognized dozens of exemplary individuals and organizations.
- Through their extraordinary achievements – whether through political leadership, grassroots action, scientific innovation, or entrepreneurial vision – each of these Champions has inspired critical action on behalf of the global environment.

Champions of the Earth recognizes laureates in the following categories:

- Lifetime Achievement
- Policy Leadership
- Action and Inspiration
- Entrepreneurial Vision
- Science and Innovation

Context

Chilika Lake

- It is a brackish water lagoon, spread over the Puri, Khurda and Ganjam districts of Odisha at the mouth of the Daya River
- It is the largest coastal lagoon in India and the second largest coastal lagoon in the world
- Chilika Lake was designated the first Indian wetland of international importance under the Ramsar Convention
- It is the largest wintering ground for migratory birds on the Indian sub-continent. The lake is home to a number of threatened species of plants and animals
- Its rich fishery resources sustains the livelihood for many fishermen who live in and near the lagoon.

Nalbana Bird Sanctuary

- Nalbana Bird Sanctuary or Nalbana Island is the core area of the Ramsar designated wetlands of Chilika Lake.
- Nalbana means a weed covered island In the Odia language.
- It was declared a bird sanctuary under the Wildlife Protection Act in 1973
- Thousands of birds descend during the migratory season.
- The island disappears during monsoon season due to inundation only to emerge again in post-monsoon.
- In 2002, The Bombay Natural History Society survey recorded 540 nests of the Indian river tern at the island, the largest nesting colony in the southeast Asia

Climate change in India

Gujarat

- Climate change will severely affect Rajkot — and by extension central Saurashtra by the end of the century, predicts a research paper by Gujarat-based officials of the India Meteorological Department (IMD).
    - The researchers say that in the next nine decades, the maximum summer temperature will increase by 3.3 degrees (C) and the minimum winter temperature will rise by 4.5 degrees.
    - The hotter climate will mean more rain and the region will witness a 11% to 14% rise in average rainfall.
- Southern parts of the state get fewer days of rainfall. However, the rainfall is more intense, resulting into floods
- Prosopis juliflora— the evergreen species, native to the South and Central America and the Caribbean, is a fast growing tree variety and tolerant to arid conditions and saline soil.
    - it is considered as potential fuel wood and to arrest soil erosion
    - With deep penetrating roots, it can draw water from deeper layers and can thrive in adverse conditions where other species die.
    - It displaces native flora and destroys biodiversity as it can use lot of water in the vicinity.

Assam

Mising tribe

- The Mising are an indigenous tribal community inhabiting 11 districts of Assam and Arunachal Pradesh.
- Misings are recognized as a Scheduled Tribe by the Indian government under the name 'Miri'.
    - Minnows are a fish type which is a major source of food and also livelihood for the tribes. Due to climate change and changing rainfall pattern there is dwindling catch.

Rajasthan

Pali district in Rajasthan has been receiving heavy rainfall.

- The region's soil type does not allow easy percolation; heavy rains lead to waterlogging in the fields and do more harm than good to the crops.
    - Increased rainfall has also given rise to pest infestation
    - Some pests like whitefly, which did not pose any major threat to crops earlier, is now causing excessive damage.

- The instances of wilt infection in cumin and chickpea; and powdery mildew, a fungal disease among mustard, have also gone up
- The population of aphids, small sap-sucking insects, is also increasing

Himachal Pradesh

- The Gaddis of Himachal Pradesh are grass chasers. For ages, this 0.2 million-strong nomadic community has spent half the year travelling up the Himalayas and the other half travelling downhill.
  - In summers, when the snow melts in the mountains, they head upwards with cattle, and in winters they tour the lower reaches. However, there has been a sharp decline in grazing land in the past decade
  - The decline in rain and snow has made the higher altitudes warmer. Since warmer temperatures are conducive for the growth of Lantana and Eupatorium, these weeds are spreading from lower Himalayas to mid-range mountains like Dhaulagiri
  - The Livestock Census 2012 suggests a decline in livestock population. Their number in Himachal Pradesh was 5.10 million in 1992 but reduced to 4.84 million in 2012. The decline in the number of sheep has been a stunning 25 per cent—from 1.07 million to 0.80 million.
- In times of climate change, untimely snowfall is damaging crops and causing crop illnesses.
  - It has resulted in loss of apple, potato and cabbage crops
  - Snow would also cover the base of the wheat crop.
    - snow prevents the soil from being washed away
    - The snow protected the wheat from insects or rotting.
    - It was only snowfall that didn't require chemical spray to crops. Nowadays, given the lack of snow, we need to spray chemicals

Odisha

- Satabhaya literally seven brothers, may soon become a thing of the past. It originally consisted of seven villages. Now, only Satabhaya and Kanhupur remain.
  - Five others—Gobindapur, Mohanpur, Kharik ula, Chintamanipur and Badagahiramatha
  - The rest lies submerged under the Bay of Bengal and the village is vulnerable to complete immersion.
- Concerns
  - The encroaching sea has gobbled their agricultural lands and increased the soil content in the remaining land, making it unsuitable for their livelihood.
  - Houses lie exposed to coastal storms and storm surges. Villagers have been forced to shift homes, sometimes nine times, to escape sea waters.
  - The intruding sea has also contaminated groundwater, endangered water security and put villagers at greater risk of disease

Delhi: Air quality dips to very poor category

- For the first time this season, the Air Quality Index (AQI) of Delhi breached the 'severe' mark, registering a score of 401, as per data released by the Central Pollution Control Board (CPCB)
- Environment Pollution Control Authority (EPCA) warned that private vehicles will have to stop plying if the pollution level dipped further.

NAQI

- It is calculated on quantities of five chief pollutants - Particulate Matter with a diameter less than 10 micrometres (PM10), Particulate Matter with a diameter of less than 2.5 micrometers (PM2.5), ozone (O3), Nitrogen Dioxide (NO2), and Carbon Monoxide (CO) - in the air.
- An AQI between 0-50 is considered 'good,' 51-100 'satisfactory,' 101-200 moderate,' 201-300 'poor,' 301-400 'very poor,' and 401-500 'severe.' It has a colour coding that graduates from Green (for good), Light Green (for satisfactory), Yellow (moderate), Orange (poor) and Red (very poor) to Moroon (severe).
- While 'good' denotes minimal impact in terms of effect on public health, 'severe' denotes affects on even healthy people.

Environment Pollution Control Authority (EPCA)

- Under the Environment (Protection) Act, 1986 the Central government hereby constitutes an authority to be known as the Environment Pollution (Prevention and Control) Authority for the National Capital Region

EPCA rules for Nov 1-10

- The EPCA earlier proposed halting construction, the use of diesel-run power generators, brick kilns and burning of garbage from November 1-10 to reduce pollution levels in the Capital.

Diwali celebration will be less boisterous with SC Judgment

Context

- The Supreme Court struck a balance between the interests of the firecracker industry and the right to public health, allowing the manufacture and sale of only "green" and reduced-emission or "improved" crackers, while banning those that are loud and toxic to man, animal and the environment.
- The Supreme Court emphasized that the right to health of millions is far more important than averting an economic loss to the firecracker industry.
- The judgment said though the right to health was part of the fundamental right to life under Article 21 and assumed "greater importance," the "endeavour" of the court right now was to strive for a balance between the right to public health and the right to occupation of the industry.

"Green crackers"

- "Green crackers" are so named because they "do not contain harmful chemicals" that would cause air pollution. Components in firecrackers are replaced with others that are "less dangerous" and "less harmful" to the atmosphere

Steps to be taken

- The court asked the Petroleum and Safety Explosives Organization (PESO) to review the clinical composition of fireworks, particularly with respect to reducing aluminium content, and submit a report on this within two weeks.
    - PESO will ensure that only those crackers whose decibel (sound) levels are within the limits are allowed in the market
    - PESO will ensure fireworks with permitted chemicals are purchased/ possessed/ sold/ used during Diwali and all other religious festivals and other occasions like marriages.
    - It shall test and check for the presence of banned chemicals like lithium/ arsenic/ antimony/ lead/ mercury

- Barium (Ba) salts emit poisonous gas causing respiratory problems and may have other health complications due to long-term exposure. As an immediate measure, banning Of barium salts in fireworks may be considered
    - ✓ Barium nitrate is used to produce green light. In combination With other chemicals, it can produce more colours
    - ✓ Light and colour-emitting products like sparklers, flower pots, Chakkars and torches disallowed due to the ban on barium salts' use in fireworks

- The court put the onus on the centre, state governments, schools and colleges to take up public awareness campaigns informing the public about the harmful effects of firecrackers.

Applicable Nationwide

- The Supreme Court modified its October 23 order restricting the time for bursting crackers on Deepavali and other religious festivals to two hours, between 8 p.m. and 10 p.m.
- Instead, it allowed Tamil Nadu and adjacent southern States to decide when people can burst crackers on festival days, provided the total time does not cross the two-hour mark.
- This means the authorities can stagger the time-slots and even make it an hour in the morning and another in the night.
- Further, the court said its direction that only green crackers can be manufactured and sold is only applicable to Delhi and the National Capital Region areas.

Rules laid for licensed Traders

- The court banned the manufacture, sale and use of joined firecrackers (series crackers or 'laris'), holding that they caused "huge air, noise and solid waste problems."
- The sale of green and improved crackers would be only through licensed traders.
- It banned online sale through e-commerce websites, including Flipkart and Amazon.
    - Any such e-commerce company found selling crackers online will be hauled up for contempt of court, and the court may also pass, in that eventuality, orders of monetary penalties

Concerns

- Police officers do not have any equipment to measure the decibel levels of the firecrackers or the smoke they emit.
- Tamil Nadu Fireworks and Amorces Manufacturers' Association have questioned the verdict as they have already produced crackers after approval from the PESO
- Direction on use of only 'green crackers' won't work as "there is no such thing" as one can reduce the chemicals used in manufacturing but that will take more time which is not feasible at present scenario.
- The industry operates mostly unorganized and one is not sure how successful the implementation would be.

Eastern Ghats face loss of forest cover, endemic plants

- The Eastern Ghats spread across Odisha, Andhra Pradesh, Karnataka and Tamil Nadu
- They are eroded and cut through by the four major rivers of peninsular India, known as the Godavari, Mahanadi, Krishna, and Kaveri.

Stats

- Researchers from the University of Hyderabad studied historical maps and satellite images from 1920 to 2015 to understand the changes in land use and land cover.
    - Eastern Ghats lost almost 16% of its forest area over a span of 100 years
    - The forest cover, which was 43.4% of the total geographical area in 1920, has reduced drastically to 27.5% in 2015.
- Over the years, about 8% of forest area was converted into agricultural fields, while about 4% converted into scrub or grassland.
- They also found that the number of patches of land had increased indicating fragmentation.
    - In 1920 there were about 1,379 patches which kept steadily increasing over the years reaching a whopping number of 9,457 in 2015.

Causes

- Agriculture was the main reason for deforestation during the early years,
- In 1920, the mining area was only 622 sq.km, and in 2015 it had increased to 962 sq.km.
- Other developmental activities such as the construction of dams, roads were the culprits.

Threat to species

- Eastern Ghats is home to more than 2,600 plant species and this habitat fragmentation and destruction can pose a serious threat to the endemic plants.
- Habitat reduction mainly occurred in the districts of Gajapati (Odisha), Mahbubnagar (Telangana), and also in Nallamalai and Kolli hill ranges.

Way forward

- The Eastern Ghats are often ignored. Stakeholders are interested only in the Western Ghats and Himalayan studies. So there is need to understand that the Eastern Ghats are also ecologically important. They play an important role in the monsoon break of both North-East and South-West Monsoon
- There are also many tribal communities in this region and the government needs to shift its focus and fund more studies and monitoring programmes in this region.

Eurasian otter found in Western Ghats

- IUCN: Near Threatened
- It is a semiaquatic mammal native to Eurasia.
- Animals are hunted for their pelts and for use as food
- Otters are members of the mammalian family called Mustelidae. They are shy and have elusive habits, adapting to a variety of habitats ranging from marine to freshwater environments.
- India is home to 3 of the 13 species of otters found worldwide. These are - Eurasian Otter (Lutra lutra); Smooth-coated Otter (Lutra perspicillata) and Small-clawed otter (Aonyx cinereus).
- They are protected by the Wildlife Protection Act (1972)
- Otters are found the world over, except in Australia, New Zealand, Madagascar, and other oceanic islands.

Exotic birds, animals seized in Chennai

Laws

- Import, export and re-export of any live animal or plant of a species listed in the CITES (Convention on International Trade in Endangered Species of Wild Fauna and Flora/ Washington Convention) Appendices (or of any part or derivative of such animal or plant) requires a permit or certificate.
- Its aim is to ensure that international trade in specimens of wild animals and plants does not threaten the survival of the species in the wild, and it accords varying degrees of protection to more than 35,000 species of animals and plants.
    - Appendix I, about 1200 species, are species that are threatened with extinction and are or may be affected by trade. Commercial trade in wild-caught specimens of these species is illegal (permitted only in exceptional licensed circumstances).
    - Appendix II, about 21,000 species, are species that are not necessarily threatened with extinction, but may become so unless trade in specimens of such species is subject to strict regulation in order to avoid utilization incompatible with the survival of the species in the wild.
    - Appendix III, about 170 species, are species that are listed after one member country has asked other CITES Parties for assistance in controlling trade in a species. The species are not necessarily threatened with extinction globally. In all member countries, trade in these species is only permitted with an appropriate export permit and a certificate of origin from the state of the member country who has listed the species
- International trade in all wild fauna and flora in general, and the species covered under CITES in particular, is regulated jointly through the provisions of the Wildlife (Protection) Act 1972, the Foreign Trade (Development Regulation) Act 1992, the Foreign Trade Policy of Government of India and Customs Act, 1962.
- As per Customs Act, 1962, the offences are punishable with imprisonment for a term which may extend to seven years and a fine.

Context

- The searches resulted in the seizure of 70 species of wildlife including birds like scarlet macaws, harlequin macaws, blue gold macaws, cockatoos and various species of conure.
- The searches also resulted in the seizure of squirrel monkeys, callithrix monkeys and a pair of red iguana.

Ganga activist G.D. Agarwal

Context

- On October 11, the 112th day of a fast that began in June to protest against the government's inadequate efforts at cleaning the Ganga, G.D. Agarwal, a well-known crusader for the river, died of a heart attack. He was 86.

Details

- He had adopted the name Swami Gyan Swaroop Sanand,
- He was formerly a professor in the civil engineering department at the Indian Institute of Technology, Kanpur
- He served as a member-secretary of the Central Pollution Control Board.

- He also dabbled as a sought after environmental impact assessment consultant and was part of Envirotech Instruments, a firm that specialised in preparing environment appraisal plans for projects and now makes air-pollution monitoring instruments.

Concerns Voiced

- As an environmentalist, he was vocal about disallowing hydroelectric projects in Uttarakhand along the Ganga and was disappointed with the Central and Uttarakhand governments for not doing enough to protect the river.
- He had also sought a ban on all proposed dams on the upper reaches of the Ganga and on sand mining along the river.
- His one of the demands as were instructions to give legal standing to the Ganga Bhakti Parishad, which would have supreme power to decide on matters of the river.
- A trigger for his fast this year was the "unfulfilled" promises by Prime Minister Narendra Modi, who had vowed to clean the Ganga after winning the Varanasi seat.

His Contribution

- His fasts have resulted in the establishment of the National Ganga River Basin Authority
- It has led creation of concepts such as ecological flow (the necessity to maintain a minimum quantity of water in a river at all times) while planning for hydro-electric projects.
- The Bhagirathi eco-sensitive zone came into being after the government conceded to his demands made at one of his fasts.
- After his retirement (and before his many fasts), Agarwal chose to co-opt religion in his quest to preserve the Ganga.

Ghost Nets

- Ghost nets are classified under Abandoned, Lost or otherwise Discarded Fishing Gear (ALDFG), which includes lines, traps, hooks, dredges and buoys.

Causes

- Fishermen abandon worn-out nets because it is often the easiest way to get rid of them

Stats

- A 2010 Marine Fisheries Census by the Central Marine Fisheries Research Institute (CMFRI) said there were about 1,30,000 gillnets and drift nets in operation in India.
- The United Nations Environment Programme (UNEP), in a 2009 study titled 'Abandoned, Lost or Otherwise Discarded Fishing Gear', states that almost 6,40,000 tonnes of all fishing gear (approximately 10% of the total usage) is lost or discarded in our oceans annually, in bad weather or when nets get stuck to the rocky bottom.
- According to the Marine Mammal Center, "It is estimated that ghost nets account for approximately 10 percent of all marine debris. Every year over 100,000 marine mammals die from the harmful effects of plastic, fishing nets, and trash in our oceans.

Concerns

- They can entangle fish, dolphins, sea turtles, sharks, dugongs, crocodiles, seabirds, crabs, and other creatures, including the occasional human diver

- Ghost nets can kill marine wildlife, including vulnerable species, and destroy the benthic ecosystems that exist at the lowest level of a body of water.
- The problem has been worsening with the global expansion in fishing operations, and the availability of more durable gear.
- High quality synthetic nets can last in the oceans for centuries, and lead to micro-plastic ingestion by aquatic life.
- Ghost nets are often 'ghost fishers'. Ocean currents carry them for thousands of km across the ocean floor, ensnaring, injuring and drowning marine life and damaging live corals along the way.

Measures Taken

- Temple Adventures, a recreational scuba diving operator, has been conducting ghost net removal programmes since its inception in 2008, and with support from the Wildlife Trust of India since February 2018.
- Temple Reef Foundation (TRF) organizes 'Dive against Debris' sessions, where certified divers volunteer for underwater clean-ups.
- Thiruvananthapuram-based NGO Friends of Marine Life collected 400 kg of ghost nets in 90 minutes from several places off the coast of the Kerala capital.
- The Maharashtra Tourism Development Corporation's Indian Institute of Scuba Diving and Aquatic Sports (IISDAS) has also begun retrieving ghost nets along the coast of Sindhudurg, in collaboration with the UNDP-Global Environment Facility, training youth from coastal communities in scuba diving.

International examples

- In countries like Canada and Thailand, fishermen retain their used nets; these are recycled into yarn to craft socks and even carpet tiles.
- A gear-marking programme is being tested in Indonesia so that the trajectory of gear, if it drifts away, can be studied better.

Way forward

- Unlike synthetic fishing nets, biodegradable fishing nets decompose naturally under water after a certain period of time. Coconut fibre (coir) fishing nets are commercially made and are hence a practical solution that can be taken by fishermen
- Financial incentives: Economic incentives could encourage fishers to report lost gear or bring to port old and damaged gear, as well as any ghost nets they might recover accidentally while fishing.
- Improving collection, disposal and recycling schemes: It is necessary to facilitate proper disposal of all old, damaged and retrieved fishing gears
- So to address the issue of ghost fishing nets, India needs to put an in situ action plan in place.

Gayal/Bos Frontalis/Mithun

- It is the state animal of Arunachal Pradesh
- IUCN: Vulnerable
- It is considered a descendant of the Indian Gaur or bison
- It is a large domestic bovine distributed in Northeast India, Bangladesh, northern Myanmar and in Yunnan, China
- Reared under free-range conditions in hilly forests, the mithun is known as the 'cattle of the mountain'.

- So it plays an important role in the socio-economic and cultural life of tribes such as the Nyishi, Apatani, Galo and Adi in Arunachal Pradesh.

Context

- At least 10 mithuns, considered sacred by Arunachal tribes, killed in Assam in a month

Gloriosa superba

- Gloriosa superba is Tamil Nadu's state flower.
- It is a gold mine waiting to be exploited.
- The plant, which contains 24 types of alkaloids (nitrogenous organic compounds) and 10 non-alkaloidal medicinal compounds, is widely used in native medicinal compositions and in the treatment of gout and as a pain killer in allopathic medicine.
- The price for this flower has also gone up from ₹250 a kg 30 years ago to ₹3,430 now.
- A major problem in the cultivation of this species is pollination. The peculiar structure of the flower impedes pollination rate.
- Rajendran has come up with a novel method to tackle this by resorting to 'touch pollination' or manual pollination of implanting pollen grains.
- The other problem is the high cost of raising the plant.

Glyphosate Herbicide ban by Punjab Government

Context

- The Punjab government has banned the sale of glyphosate, an herbicide which is extensively used in the State to control a wide variety of weeds in almost all the crops.

Details

- Glyphosate-based herbicide formulations are widely used by growers and farmers to control and kill weeds and invasive species.
    - Glyphosate kills plants by blocking an enzyme which helps in the synthesis of amino acids and essential nutrients.
- It is only absorbed through green plant tissue such as leaves and stems.
    - Because it is not absorbed by roots it can be safely used around desirable plants.
- Glyphosate is sold in the country under various trade names such as Round-up, Excell, Glycel, Glider, Glydon, etc.
- Though the use of this herbicide is restricted to tea plantations and for non-crops in India, farmers use glyphosate liberally, and illegally.
- The weeds can reduce tea yields by up to 70 per cent

International Agency for Research on Cancer (IARC) classification

Classification	IARC's evaluation	Plain English
Group 1	Carcinogenic to humans	Has potential to cause cancer
Group 2A	Probably carcinogenic to humans	Could cause cancer but not so sure
Group 2B	Possibly carcinogenic to humans	Can't be dismissed as *not* causing cancer
Group 3	Not classifiable	Lack of evidence to make up mind
Group 4	Probably not carcinogenic to humans	Pretty sure can't cause cancer

Health Issues

- This chemical has been observed to be a Group 2A cancer-causing material.
- Besides cancer, this chemical is also known for causing other health problems and has the potential to damage human DNA as per the opinion of experts from PGIMER, Chandigarh
- Kidney and liver damage, endocrine disruption, neurological damage and immune system dysfunction.

Environmental Impact

- Studies show the chemical significantly decreased the activity of fungi which is crucial in the ability of the plant to absorb water and nutrients from the soil. Exposure to the chemical leads to reduction in beneficial microbes in soil.
- Moreover, friendly organisms such as earthworms are also affected when glyphosate is used
- The study shows that even small doses of the chemical harm bees which are crucial for pollination. The researchers from the University of Buenos Aires in Argentina found that honeybees exposed to Roundup exhibited decreased sensitivity to sucrose leading to a decreased ability to track and find food.
    - They also exhibited higher frequencies of Colony Collapse Disorder most likely because they could not remember how to get back to their hive.

Steps taken

- All pesticide manufacturers, marketers and dealers in the State shall not sell glyphosate formulations-concentrations with immediate effect.

World over

- Whether it is India, Canada, France, the US or any part of the world, the use of glyphosate is all-pervading.
- In the US, over 4,000 lawsuits have been filed against Monsanto, the company which manufactured this herbicide.

Indian Flapshell Turtle

- IUCN: least concern
- Countries: Recorded from Pakistan, India (Sikkim), Sri Lanka, Nepal and Bangladesh (Indus and Ganges River drainages) and Myanmar (Irrawaddy and Salween rivers).
- It is listed under Schedule (I) of the Wildlife Protection Act, 1972, and is granted the same level of protection as the tiger.

Features

- The "flap-shelled" name stems from the presence of femoral flaps located on the plastron. These flaps of skin cover the limbs when they retract into the shell. It is unclear what protection the flaps offer against predators

Threat

- In many South Asia provinces, freshwater turtles and their eggs are commonly used as a source of food
- The shell of L. punctata is believed to be of medicinal value in both China and India. The shell is burnt and ground with oil to produce a medicine in China used to treat certain types of skin diseases

Jal Bachao, Video Banao, Puraskar Pao contest

- The contest was launched by the Ministry of Water Resources in collaboration with the MyGov portal of the Government of India.
- The objective is to spread awareness about water conservation
- Any Indian citizen can participate in the contest. He or she needs to shoot an original video on the theme. They are required to upload their entries on YouTube and enter the publicly accessible link on the Video link section of MyGov contest page www.mygov.in

Lions in Gujarat may have been killed by Muted Virus

Context

- Gujarat officials are grappling with the death of 21 lions, wildlife experts say that more than the numbers it's the fear of a mutation in a virus as the likely cause of deaths

- The lions succumbed to the deadly infection of canine distemper virus (CDV) and tick-borne babesiosis.
- The Gir sanctuary in Gujarat is the last habitat of the Asiatic lion of which 500-600 survive.

Stats

According to a 2015 census, Gir is home to 523 lions, including 109 male, 201 female, 73 sub-adults and 140 cubs.

Canine Distemper Virus (CDV)

Babesiosis

Warnings Ignored

Action Plan

- Vaccinate dogs in the vicinity against CDV, like in Serengeti where close to 30000 dogs were vaccinated
- Tick control measures among domesticated bovine animals goats and sheep in Gir's vicinity
- The lions may have caught the CDV from other carnivores like hyenas or leopards
- As a precautionary measure, Gir authorities have captured and isolated 31 lions from areas adjacent to the one in which the deaths have occurred.

Earlier Instances

Gir has long lived in the shadow of potential epidemics.

- In 2012, studying frozen tissue samples taken from the carcass of a lion that died in 2007, IVRI researches flagged the presence of the Peste Des Petits Ruminants virus (PPRV).
- PPRV or 'Goat Plague' is highly contagious, and can be deadlier than even CDV that wiped out a third of Africa's lions in the mid-1990s.
    - But it infects only domestic livestock — small ruminants like goats and sheep.
    - It is part of a family of morbilliviruses that causes canine distemper in many carnivore species, measles in humans, and rinderpest in cattle. There is no record of PPRV making carnivores sick

Mansar Lake

- Mansar Lake, one of the largest freshwater lakes in the Shivalik range of the Jammu region
- Surinsar-Mansar Lakes is designated as Ramsar Convention in November 2005.
- It is also a holy site, sharing the legend and sanctity of Lake Manasarovar.

Concerns

- It is being ruthlessly exploited for water along its catchment area, creating hostile conditions
- Plastic bottles and polythene bags litter the lake at several places and fishes and freshwater turtles found in the water can be seen scavenging the dangerous plastic material.
- The water body is slowly poisoned by the use of pesticides in the surrounding farmland, direct influx of untreated sewage water and solid waste generated by eateries and hotels.
- the lake is facing an existential threat due to human intervention and climate change

'Minimum River Flows' for the Ganga

Context

- The Central Government notified the minimum environmental flows for River Ganga that has to be maintained at various locations on the river.
- Environmental flows are the acceptable flow regimes that are required to maintain a river in the desired environmental state or predetermined state.

Details

- This order will apply to the upper Ganga River Basin starting from originating glaciers and through respective confluences of its head tributaries finally meeting at Devaprayag up to Haridwar and the main stem of River Ganga up to Unnao district of Uttar Pradesh.
- The compliance of minimum environmental flow is applicable to all existing, under-construction and future projects.
- The flow conditions in these river reaches will be monitored at hourly intervals from time to time.
- The Central Water Commission will be the designated authority and the custodian of the data, and will be responsible for supervision, monitoring, regulation of flows and reporting of necessary information to the appropriate authority as and when required and also take emergent decisions about the water storage norms in case of any emergency.
- The Central Government through National Mission for Clean Ganga may direct release of additional water in the River Ganga to meet special demand as and when required.
- The concerned Central and State authorities shall implement demand side management plans to reduce water withdrawal from River Ganga by adopting good and scientific practices such as efficient method of irrigation, reuse and recycle of water including monitoring and regulation of groundwater withdrawals for various purposes.

Significance

- It will ensure its Aviralta or continuous flow
- It will guarantee that the river has at least the minimum required environmental flow of water even after the river flow gets diverted by projects and structures for purposes like irrigation, hydropower, domestic and industrial use etc.

Musi

- The Musi river gets its names from two streams namely Moosa and Esi which converge at the Tipu Khan bridge in the Golconda area
- Musinuru is a tributary of the Krishna River in the Deccan Plateau flowing through Telangana
- The river originates in Anantagiri Hills near Vikarabad in Vikarabad district. It joins the Krishna River at Vadapally in Nalgonda district
- Hyderabad stands on the banks of Musi River, which divides the historic old city and the new city.
- Himayat Sagar and Osman Sagar are dams built on it which used to act as source of water for Hyderabad.
- The river was known as Nerva during Qutub Shahi period.

Concerns

- Except for a few days in a year during the monsoon, Hyderabad's Musi River cannot flow on its own.

- Plastic packets, organic waste of puja offerings, including mango leaves, coconuts and flowers, broken glass pieces, Carcasses of dogs and pigs also float by.
- Due to indiscriminate urbanization and lack of planning, the river has become a receptacle for all the untreated domestic and industrial waste water in the city.
- The chemical waste which enters the river from industries seeps into the ground and contaminates ground water. The same water is consumed by people and adversely affects their health
    - This Pollution has given rise to several major problems including a high incidence of diseases such as arthritis, diarrheic, skin allergies, stomach pain, malaria, food poisoning, eye diseases, pediatric problems and jaundices.
    - The Common Effluent Treatment Plants (CETPs) which have been set up to treat effluents from industries are not able to do so efficiently with the chemicals ending up in the river.

Rubber Dam

- There was a construction of the rubber dam near the High Court building
- The 80-metre rubber dam near the High Court, with a control room on the other side, has a capacity of 2.6 lakh litre and needs three hours to inflate and one hour for deflation.
- A rubber dam or flexible check dam is an inflatable structure build across a stream used for water conservation, flood control and regulating flow of water in the stream.
    - When it is deflated it functions as a flood mitigation device and sediment flushing.
- The head or height of the rubber dam is variable. According to the requirement, its height can be increased or decreased.
- The main advantages of a rubber dam are its ability for better soil erosion control and flood control during excess runoff water flow.
    - It also acts as a dam/ reservoir for storing water during scanty rainfall period (dry spells) so that supplemental irrigation can be provided to the crops.
- But his has led to water stagnation, leading to pools where mosquitoes breed

Neelakurinji flowers

- It is a shrub that is found in the shola forests of the Western Ghats
    - Neelakurinji is also seen in the Shevroys in the Eastern Ghats, some parts of Idukki in Kerala and of course, the Sandur hills of Ballari district.
- Nilgiri Hills, which literally means the blue mountains, got their name from the purplish blue flowers of Neelakurinji that blossoms only once in 12 years.
- Kurinji grows at an altitude of 1300 to 2400 metres.
- Plants that bloom at long intervals like Strobilanthes kunthianus are known as plietesials.
    - Plietesials are plants that take long vegetative intervals to flower after every few years
    - The length of the cycle can vary between 8 and 16 years.
- The Paliyan Tribal People living in Tamil nadu used it as a reference to calculate their age.
    - The Paliyan, or Palaiyar or Pazhaiyarare are a group of around 9,500 formerly nomadic Dravidian tribals living in the South Western Ghats montane rain forests in Tamil Nadu and Kerala
    - They speak a Dravidian language, Paliyan, closely related to Malayalam.
    - As they have very little farmland, they do very little agriculture. Their main source of income is from manual labour and from the sale of things they have collected from the forest.

Pollution Haven Hypothesis

- This refers to the hypothesis that companies that cause a lot of environmental pollution generally prefer to set up their factories and other facilities in developing countries that have lax environmental regulations.
- This is because complying with the tough environmental standards in developed countries is usually a costly affair. So it makes economic sense to locate operations in countries with poor environmental standards.
- Apart from lax environmental regulations, people and policymakers in developing countries also attach a lower value to the need for a clean environment.

'Does environmental governance matter for foreign direct investment? Testing the pollution haven hypothesis for Indian States'

The Asian Development Review is a professional journal for disseminating the results of economic and development research carried out by staff and resource persons of the Asian Development Bank (ADB). In a new study, researchers from the Indian Institute of Technology Bombay (IIT Bombay) explored this question in the Indian context and found that the data suggests otherwise.

- The results from 21 States show that environmental regulation has little impact on FDI, which is dependent on other variables of infrastructure and labour instead.
- In terms of policy, it would help India if it focused more on these factors rather than on a blanket change in environmental regulation.
- The results revealed that states and union territories like Chandigarh, Odisha, and Karnataka have the highest environmental stringency whereas Bihar, Delhi, North Eastern states and the Andaman and Nicobar Islands exhibit the lowest.
- It found that factors like market size and demand, the share of the manufacturing sector in the state economy, availability of power, proximity to the coast, existing investment stock, availability of resources and human capital influence FDI decisions.
    - It also found that higher per capita income of a region attracts more investments as it demonstrates a higher purchasing power of the people and hence, an excellent market opportunity.

Pulicat Lake

- Pulicat Lagoon is the second largest brackish water lagoon in India, after Chilika Lake.
- The lake encompasses the Pulicat Lake Bird Sanctuary.
- The lagoon is separated from the Bay of Bengal by a barrier island which is the Sriharikota.
- Two rivers which feed the lagoon are the Arani river at the southern tip and the Kalangi River from the northwest, in addition to some smaller streams.
- 90% of the lake falls in Andhra Pradesh, the other 10% comes under Protected Areas of Tamil Nadu.

Siberian visitors: Amur Falcons

Quick Facts

- Scientific Name: Falco amurensis
- Breeds in South-east Russia and northern China.
- Migrates west through India and across the Arabian Sea to Southern Africa
- Feeds on dragonflies that follow a similar migration path over Arabian Sea.
- 22,000 km journey (longest sea crossing of any raptor)
- Flyway: East-Asian Australasian and African Eurasian
- Population of more than 1,000,000 breeding individuals
- IUCN: Least Concern

Main Threats

- Over harvesting from trapping
- Habitat loss from grassland degradation.

Conservation Efforts

- The Tyrso Valley Wildlife Protection Society is an NGO formed by the villagers of the eponymous Meghalaya village adjoining Umru.

- The group has been organising the Amur Falcon Festival since 2015 to celebrate the birds that have made this back-of-beyond area famous.
- The festival is scheduled on November 7-8, a fortnight before the birds are expected to soar for the next destination.
- People here have become sensitive about the birds because of awareness campaigns. They are also opening up to the idea of homestays for birdwatchers and nature lovers who come here for the Amur falcons.

Construction of Road

- And the lack of a road had cramped their plans to open up to birdwatchers. The former government in Meghalaya under Mukul M. Sangma had sanctioned a nine km road from nearest roadhead, Liarbang, and the villagers hope work on the road will begin soon.
- The Umru-Tyrso area, about 75 km northeast of Shillong, however, is a relatively recent pit stop for the falcons. The birds used to flock to Umwang, also in the Block II disputed area, from 1998-2009 before human interference made them shift base.
- Wildlife officials in Nagaland also point out that the birds used to roost in large numbers in the Changtongya Community Conservation Reserve but moved on to Pangti and Yaongyimchen, a lesser roosting site.
- Efforts are on to revive the Changtongya area, about 100 km north of Pangti, for the migratory raptors.

Special Report on Global Warming of 1.5°C

Context

- If the average global temperature rises by more than one degree Celsius from the present, India could 'annually" expect conditions like the 2015 heat wave that killed at least 2,000, according to the 'Special Report on Global Warming commissioned by the Inter- governmental Panel on Climate Change (IPCC).

Details

- The report was put together by about 91 authors and review-editors from 40 countries, who had convened in Incheon, South Korea, to assess the feasibility of keeping the average global temperature from rising beyond 1.5 degree Celsius from pre-industrial times.
- In the Indian subcontinent, the IPCC report specifically mentions Kolkata and Karachi among cities that could face an increased threat of heat waves.

Impact

- Deadlier heatwaves in India, Pakistan
    - Rise in vector-borne diseases like malaria and dengue
    - Many megacities becoming heat-stressed, exposing more than 350 million more people to deadly heat by 2050
- Increase in poverty
    - Climate change is also projected to be a "poverty multiplier" through food insecurity, higher food prices, and income losses, lost livelihood opportunities, adverse health impacts and population displacements.

Concerns

- With the U.S. withdrawing from the accord, the chances of such an ambitious target were significantly weakened.
- Many of these techniques, such as carbon capture and storage, were unproven on a global scale and some carried significant risks for sustainable development

Steps to be taken

- Capping the rise in temperature to 1.5 degrees Celsius would require "rapid and far-reaching" transitions in land, energy, industry, buildings, transport and cities.
- The global net human-caused emissions of carbon dioxide (CO2) would need to fall by about 45% from 2010 levels by 2030, reaching 'net zero' around 2050.
- Achieving this would require "rapid, far-reaching and unprecedented changes in all aspects of society,'

International Conference on Status and Protection of Coral Reefs (STAPCOR – 2018)

Context

- The International Conference on Status and Protection of Coral Reefs (STAPCOR – 2018) with the theme "Reef for Life" was inaugurated by the Union Minister of Environment, Forest and Climate Change at Bangaram coral Island of Union Territory of Lakshadweep
- The Department of Environment and Forest, Union Territory of Lakshadweep Administration organised this mega conference with the technical support of Zoological Survey of India and in association with Ministry of Environment, Forest and Climate Change, IUCN, ENVIS in consonance with declaration of the year 2018 as 3rd decadal International year of Reefs.

Details

- The effect of climate change and global warming along with Elnino on the corals lead to heavy bleaching internationally during the year 1998, this lead to the foundation of STAPCOR with a decision to have an international conference in every 10 years to review the status and progress of coral reefs all over the world.
- The theme for 2018 is "Reef for Life".

International year of Reefs 2018

- The International Year of the Reef 2018 is a worldwide campaign to raise awareness about the value and importance of coral reefs and threats to their sustainability, and to motivate people to take action to protect them.
- 1997 was declared the first International Year of the Reef (IYOR), in response to the increasing threats on coral reefs and associated ecosystems, such as mangroves and sea grasses around the world. IYOR was a global effort to increase awareness and understanding on the values and threats to coral reefs, and to support related conservation, research and management efforts.

The goals of the 2018 IYOR are to:

- strengthen awareness globally about the value of, and threats to, coral reefs and associated ecosystems;
- promote management partnerships among all shareholders: government, the private sector, academia, and the local community;
- identify and implement effective management strategies for conservation, increased resiliency, and sustainable use of these ecosystems; and,

- Share information on best practices in relation to sustainable coral reef management.

Taliperu Project

- Taliperu Reservoir is a medium irrigation project constructed across the Taliperu River, a tributary of Godavari River located at Cherla Village and Mandal, Khammam District, Telangana.
- The river has been harnessed for agricultural purposes through extensive canal systems developed in that region.

Third Pole

Context

- China's melting glacier draws tourists
- Millions of people each year are drawn to Baishui's frosty beauty on the southeastern edge of the Third Pole — a region in Central Asia with the world's third largest store of ice after Antarctica and Greenland that's roughly the size of Texas and New Mexico combined.

Third Pole

- The Hindu Kush-Himalayan region spans an area of more than 4.3 million square kilometres in Afghanistan, Bangladesh, Bhutan, China, India, Myanmar, Nepal, and Pakistan.
- The region stores more snow and ice than anywhere else in the world outside the Polar Regions, giving its name: 'The Third Pole'.
- The Third Pole contains the world's highest mountains, including all 14 peaks above 8,000 metres, is the source of 10 major rivers, and forms a formidable global ecological buffer.

Concerns

- The glacier has lost 60% of its mass and shrunk 250 m since 1982, according to a 2018 report in the Journal of Geophysical Research.
    - The rate of warming in the Third Pole region is significantly higher than the global average, and the rate is higher at higher altitude
- Third Pole glaciers are vital to billions of people from Vietnam to Afghanistan. Asia's 10 largest rivers — including the Yangtze, Yellow, Mekong, and Ganges — are fed by seasonal melting
- Depending on how it melts, a lot of the freshwater will be leaving the region for the ocean, which will have severe impacts on water and food security

Toluene can be degraded by Bacteria

- They are naturally found in crude oil
- Toluene is produced during the process of making gasoline and other fuels from crude oil
- It is used as solvent in some types of paint thinner, contact cement and model airplane glue,
- Toluene is one of the petrochemical wastes that get released without treatment from industries such as refineries, paint, textile, paper and rubber.
- Toluene has been reported to cause serious health problems to aquatic life, and studies point that it has genotoxic and carcinogenic effects on human beings.

Context

- Using bacteria isolated from soil and effluents near an oil refinery, researchers from the University of Delhi and Indian Institute of Technology (BHU), Varanasi, have successfully degraded toluene into less-toxic byproducts.

Details

- A particular bacteria Acinetobacter junii showed good degrading potential — about 80% of toluene (50 ppm) in a liquid medium was degraded within 72 hours.
- A group of A. junii bacteria was found to be more effective than using a single strain.
- Different bacterial strains have different characteristic potential to degrade intermediate by-products formed during the degradation process and, hence, increase the efficiency

Conditions

- Another interesting find was that when exposed to toluene, these bacteria changed their morphology to escape toxicity.
- Degradation was through a general aerobic biodegradation pathway.
    - An aerobic organism functions in the presence of oxygen.
    - An anaerobic organism functions without the use of oxygen.
- The bacteria use up this toluene as their carbon source in the presence of oxygen. Though most of the waste degradation studies have involved the use of bacteria that grow in an anaerobic environment this was an aerobic one

WHO Children's Health Report due to Pollution

Context

- In a report by World Health Organisation it said that every day about 93% of the world's children under the age of 15 (1.8 billion children) breathe polluted air that puts their health and development at serious risk
- As many as six lakh estimated to have perished in 2016 alone due to complications from acute lower respiratory infections caused by dirty air

Health Issues

- Air pollution impacts neurodevelopment and cognitive ability and can trigger asthma, and childhood cancer.
- Children exposed to high levels of air pollution may be at greater risk for chronic diseases such as cardiovascular disease later in life
- Pregnant women are exposed to polluted air, they are more likely to give birth prematurely, and have small, low birth-weight children.

Why are children more susceptible?

- One reason why children are particularly vulnerable to the effects of air pollution is that they breathe more rapidly than adults and so absorb more pollutants.
- They also live closer to the ground, where some pollutants reach peak concentrations — at a time when their brains and bodies are still developing.
- Newborns and small children are often at home. If the family is burning fuels like wood and kerosene for cooking, heating and lighting, they would be exposed to higher levels of pollution.

Measures to be taken

- Steps to minimize children's exposure to polluted air: Schools and playgrounds should be located away from major sources of air pollution like busy roads, factories and power plants.
- All countries should work towards meeting WHO global air quality guidelines to enhance the health and safety of children.
    - To achieve this, governments should adopt such measures as reducing the over-dependence on fossil fuels in the global energy mix, investing in improvements in energy efficiency and facilitating the uptake of renewable energy sources.
    - Better waste management can reduce the amount of waste that is burned within communities and thereby reducing 'community air pollution'.
    - The exclusive use of clean technologies and fuels for household cooking, heating and lighting activities can drastically improve the air quality within homes and in the surrounding community.

WHO's First Global Conference on Air Pollution and Health

- It will provide the opportunity for world leaders; ministers of health, energy, and environment; mayors; heads of intergovernmental organizations; scientists and others to commit to act against this serious health threat, which shortens the lives of around 7 million people each year.
- Action by the health sector to inform, educate, provide resources to health professionals, and engage in inter-sectoral policy making.

Wildlife Week Celebrations

- Wildlife Week is celebrated all over the country in the month of October from 2nd to 8th October every year with the view to preserve the fauna means the animal life of the India.
- It was first started in the year 1952 with the great vision of saving the life of the Indian animals by taking some critical steps.
- It involves the planning to save animal extinction of any species of the India

Wind energy is threat to wildlife

Context

- According to Researchers from Salim Ali Centre for Ornithology and Natural History (SACON) who are on a a two-year project found that windmills killed birds and bats in collisions, and that birds and mammals also moved away due to the noise

Collisions

- The team saw collisions of 10 animals — 6 bats and four birds — with a collision rate of 0.23 animals per year per turbine.
- While the collision rate was low compared to other locations, it could not be ignored as the bulk of them took place in a short span of time

Noise levels

- The noise levels near windmills go up to 85 decibels (dB), the equivalent of large trucks.
- The drone of a turbine, which operates day and night, is above 70dB.
- By comparison, noise in urban areas is 55 dB and even in industrial areas, is lower at 75dB.
- Ambient noise in forests is less than 40 dB.

Concerns

- There are 50% fewer birds in the areas compared to undisturbed sites
- Herbivores moved away, with predators following them.
- And all these are moving away towards fringes of forests. Following them are predators such as wolves and small carnivores. This is bound to increase conflict

Recommendations

- Karnataka Forest Department, Karnataka Renewable Energy Development Limited (KREDL) and National Institute of Wind Energy, calls for protocols and policy guidelines before diverting forest land for wind farms

Stubble burning continues as farmers incentive is less

Context

- Farmers in Punjab have begun harvesting the kharif paddy crop and preparing the fields for the winter crop.

Why farmers opt for Stubble burning?

- Farmers choose to burn the paddy residue not out of choice but compulsion.
- The time lag between harvesting of paddy and for sowing the next crop is very little. To harvest and prepare the field for next sowing in a brief window of 20-25 days. Using machinery is not just time-consuming, it's expensive as well. Burning is the least time-consuming and cheapest option

Stats

- Paddy is grown on 30 lakh hectares in Punjab.
- After harvesting, about 20 million tonnes of paddy straw is left in the fields.
- It is estimated that 15 million tonnes of paddy straw are burnt every year.

Concerns

- With the retreat of monsoon, the northwesterly winds start which blow into the plains, carrying the smoke from the stubble.
- Paddy stubble is being set on fire, raising fears of a spike in air pollution across the northern States, including the national capital New Delhi.

Measures taken

- In an effort to solve the problem of stubble without burning, the State government has provided agro-machines and other equipment, including mulchers and choppers, at subsidized rates to farmers and cooperative societies with a Central outlay of around around ₹650 crore for 2018-2020.

Issue Area

- The number of machines is inadequate.
- There are reports that subsidized agro-machines being given by the government have not reached many villages
- The high cost of using them, given the rising costs of diesel, will not serve the purpose of putting an end to stubble burning

- The State government has made the use of Super Straw Management System (SMS) compulsory with combine harvester to facilitate in-situ management of crop residue.
    - A Super SMS attached to the rear of a combine harvester chops and uniformly spreads loose straw coming out of the combine on the field.
    - The main objective of the Super Straw Management System (SMS) is to cut the crop residue into small pieces so that farmers would not have to burn them and they can sow the next crop.
    - But this has again adds to the cost.

Wilson

- It is a 2,000 foot-long floating pipe with the mission to collect all the plastic in the Great Pacific Garbage Patch (GPGP) between Hawaii and California, and which contains an estimated 1.8 trillion pieces of plastic.
    - It spans 617,763 sq miles - more than twice the size of France, and contains at least 79,000 tons of plastic
- Most of it is made up of "ghost gear" – parts of abandoned and lost fishing gear, such as nets and ropes – often from illegal fishing vessels.
- The goal is to recycle the plastic and create new products.
- The system to tackle the largest swirling mass of rubbish in the Pacific has been designed by a non-profit technology firm called The Ocean Cleanup

Features

- The pipe, which is in the shape of a U, features a 3-meter deep net underneath it to trap floating plastic under the water's surface.
- A boat will return to the spot every couple of months to remove the debris -- like a garbage truck for the ocean -- and return it to shore.
- The screens, however, will be unable to trap micro plastics – tiny fragments.
- Fish will be able to escape the screens by swimming underneath them.

Human–leopard conflict in the Himalaya

Introduction

- Human–animal conflict is common in the Himalaya like any other region where wildlife and people live together.
- The foothills of the eastern Himalaya in northern West Bengal — called the dooars, a landscape comprising tea plantations and forests — alone have witnessed more than 700 leopard attacks on people between 1990 and 2016.
- In the western Himalaya (Pauri Garhwal in Uttarakhand), numerous leopards have been killed in retaliation to the human deaths and injuries they have caused.

Stats

- On an average, leopards killed more than three and injured 11 people in Pauri each year between 2006 and 2016; in turn, 121 leopards met their ends at the hands of people.
- In the dooars, while 420 people were injured between 2011 and 2016 alone, there were barely any retaliatory killings.

- The researchers find that around 97% of animal attacks in the dooars and 60% in Pauri resulted in human injuries. While a majority of the victims in Pauri were children and youth, middle-aged tea estate workers were most at risk in the dooars.

Measures taken

- Despite this, 368 interviews with locals in both areas revealed that 41% of respondents in Pauri and 75 % in the dooars were positive towards the presence and conservation of leopards.
- The high percentage of positivism in the dooars is largely due to the strong foundation of Joint Forest Management activities that have long been practised here, leading to better awareness and participation of local communities in conservation

Way Forward

- Regular monitoring by wildlife managers and local response teams,
- Providing proper lighting in villages and
- Clearing bushes around houses — would be crucial to mitigate conflict.

SC bans sale of BS-IV vehicles from 2020

Context

- The Supreme Court banned the sale and registration of motor vehicles conforming to the emission standard Bharat Stage-IV in the entire country from April 1, 2020.

Concerns

- India has the dubious distinction of having 15 out of the 20 most polluted cities in the world
- Pollution has reached an "alarming and critical" level all over India.
- So there cannot be any compromise on the health of citizens
- Therefore a conflict between health and wealth, health will have to be given precedence

Challenges

- Cars will become more expensive
    - Auto companies will have to invest heavily on technological upgrades
- The BS-IV compliant fuels have sulphur concentration of 50 parts per million (ppm).
    - This will come down to as low as 10 ppm in BS-VI compliant fuels and auto engines. This means a lower level of harmful emissions and reduced incidence of lung diseases.
    - The quality upgrade will also result in diesel's cost of production going up by 63 paise per litre and petrol by Rs 1.40 per litre. The switch will also make petrol vehicles costly by Rs 50,000 and diesel vehicles by Rs 1 lakh.

India's answer to climate Change

Background

- Paris Agreement on climate change signed in 2015 a mega climate change summit would not be enough to avoid global warming of 1.5°cover pre-industrial temperatures.

Why?

- The U.S. has pulled out of the climate treaty.
- Some countries are also doing less than they claim.

- According to Kevin Anderson at the University of Manchester, with aviation, shipping and trade counted, the U.K. has made no reduction to its greenhouse gas emissions.

Burden on India

- More recently, there has been mounting pressure on India to raise its pledges further.
- The Intergovernmental Panel on Climate Change (IPCC) report on 1.5° C has multiple alarms for India.
- A study in Nature Climate Change identifies India as the country with the most expected damage from rising levels of carbon dioxide. How should India respond?

India's intricate socio Economic Challenges

- India is often mentioned along with China in climate-related discussions as a large emerging economy, the two are very different. India ranks 130 among nations in the Human Development Index, and China ranks 86.
    - India still has 364 million living in multidimensional poverty.
    - Nearly a third (27.5%) are multidimensionally poor and about a fifth (19.1%) are vulnerable to becoming poor.
    - Almost half the country is therefore at high risk from events such as loss of a job or ill health of a family member.
    - Combined with damage from a severe cyclone, flood or drought, each subsequent shock will have a multiplier effect on hundreds of millions, potentially pushing them deeper into poverty.
    - Add to this the current rural distress and the large youth bulge with few job prospects
- India has two complex and inter-related problems.
    - The first is to bring a vast population out of poverty and into decent lives.
    - The second is to do this while dealing responsibly with the global carbon challenge and building resilience to climate change.

Deepen and expand India's commitment to the Sustainable Development Goals (SDGs)

- Transformative and cross-scale changes are conceived, deliberated upon and tested widely.
- Context-relevant modifications through local and institutional innovation may be more appropriate for a country of India's size and ecological diversity.
    - The Bureau of Energy Efficiency has taken effective steps through appliance labelling and large-scale procurement of efficient devices.
        - ✓ National Energy Efficient Agriculture Pumps Programme
        - ✓ National Energy Efficient Fan Programme
    - In the building and cement industry, innovation around housing and new materials, including natural fibre composites, could make far-reaching changes in infrastructure through low-carbon modular technologies.
    - India can also make use of micro grids as proved in villages of Jharkhand as an alternative apart from centralized solar power plants which requires significant amounts of land, water and evacuation infrastructure and support from mega-corporations.
    - Agro-ecology methods can be employed for increasing crop yield, raising profits, trapping soil carbon, reducing dependence on fertilizers and pesticides. Examples can be drawn from Zero Budget Natural Farming in Andhra Pradesh.
    - In transport and urbanization walking, cycling and sustainable neighborhood vehicles should be given importance over cars.

- There should be no question of trade off for forests, urban water bodies, riverine ecosystems, waste management or groundwater as these come back to bite us as floods, landslides, droughts and infectious disease.

Way forward

- Policymakers, with inputs from academia, community workers and the public, should work on how these would be repeated in other contexts keeping climate impacts in mind.
- With external funding drying India can look at alternative avenues of curbing non-essential consumption by enforcing carbon tax.
- So what India needs a change from within rather than being pressured from outside.

For Kumbh, Ganga gets a Swachh 'army'

Context:

Kumbh Mela will be organized by the Uttar Pradesh Government in January 2019

Details:

- The January 2019 Kumbh Mela, it will have a special unit to help: a volunteer force of ex-servicemen. The Ganga Task Force (GTF), specially trained by the Ministry of Defence will help with crowd management, spread awareness on keeping the river clean and stop people and industry from polluting the river.
- Currently, a "battalion" of 300 personnel has been trained and stationed in Allahabad.
- Plans are afoot to expand the strength to 500 and post them in Kanpur and Varanasi, said Director-General, National Mission for Clean Ganga (NMCG).
- The NMCG runs the 'Namami Gange' mission to clean the Ganga.
- The NMCG's thrust is on roping in the private sector to not only set up sewage treatment plants (STPs) but also maintain them.

Ganga Task Force (GTF):

- The GTF is a unit of the Territorial Army deployed in the services of the Ganga with the approval of Ministry of Defence for four years till December 2020.
- It consists of three companies of over 100 men each to be stationed at Kanpur, Allahabad and Varanasi, with the battalion headquarters at Allahabad.
- Their functions will include planting trees to check soil erosion, patrolling sensitive river areas for biodiversity protection, monitoring river pollution, and assisting during floods/natural calamity.
- The jawans have also been trained by the Central Pollution Control Board to measure the health of the river.
- In 2015, the government, through an executive order, had cleared the creation of such a force. However, a defined mandate — such as to punish or imprison those found polluting the river — is being fleshed out in a forthcoming 'Ganga Act,' which is yet to be ironed out as a Bill and is under discussion.

What is Kumbh Mela?

- Kumbh Mela is the festival of a sacred pitcher where the piligrims bathe or take dip in the sacred river.
- It is one of the largest human congregations in the world. It is held in four pilgrimage places on the sacred rivers in Haridwar, Ujjain, Nashik and Prayag.

- India, known for its heritage and cultural diversity has 13 cultural heritages in the UNESCO's intangible cultural heritage list. "Kumbh Mela" was the latest addition to the list.
- Kumbh Mela was inscribed on the Representative List of Intangible Cultural Heritage of Humanity during the 12th session held at Jeju, South Korea.

India has three of the world's 50 nitrogen emission hotspots

Facts

- According to a new Greenpeace analysis based on satellite data, South Africa's Mpumalanga province emits the highest amounts of Nitrogen Dioxide (NO2) in the air
- Out of 50 hotspots identified by Greenpeace, 10 are in China, eight in the Arab world, four in the EU and three each in India, the US and DR Congo.
- The three in India are Delhi-NCR, Singrauli in MP and Talcher-Angul in Odisha.

Is Nitrogen Harmful?

- Nitrogen makes up the bulk of the atmosphere and is harmless by itself.
- However, reactive forms of nitrogen like nitrate, ammonia and nitrous oxide are harmful. Nitrous oxide, like carbon dioxide, is a greenhouse gas

Sources of emission

- Power generation from coal and oil has been found to be the main source of emissions at 19 out of the 50 largest number of hotspots,
- Followed by manufacturing industries (14) and transportation (10).
- It is due to increased dependence on nitrogen fertilizers
    - Chemical fertilizers account for over 77% of agricultural nitrogen oxide emissions in India and cattle contribute to 80% of the country's ammonia production
    - Within agriculture, cereals pollute the most.
    - Rice and wheat take up the maximum cropped area in India at 36.95 million hectares (ha) and 26.69 million ha respectively; India consumes 17 Mt (million tonnes) of nitrogen fertiliser annually as per the data of the Fertiliser Association of India.
    - Only 33 per cent of the nitrogen that is applied to rice and wheat through fertilisers is taken up by the plants in the form of nitrates (NO3). This is called Nitrogen Use Efficiency or NUE.
        - It is the fraction of applied nitrogen that is absorbed and used by the plant.
    - The remaining 67 per cent remains in the soil and seeps into the surrounding environment causing a cascade of environmental and health impacts.

Institutional flaws

- Weak emission regulation for power plants is one of the major reasons for such high emissions at the hotspots in the world.
    - The weak standards allow these plants to emit multiple times more pollutants than the best practice.
    - For example, South Africa, with the most prominent power plant hotspot, allows 10 times more NOx emissions from coal-fired power plants than China and Japan.
- In India too, power plants were supposed to comply with emission standards, but the Ministry of Environment and Power took no action against polluting coal power plants.
    - On the contrary, it had extended the deadline for implementation of emissions standards for thermal power plants

Concerns

- NO2 is a dangerous pollutant that contributes to the formation of PM2.5 and ozone, two of the most dangerous forms of air pollution. So, breathing air with a high concentration of NO2 can irritate airways in the human respiratory system.
- Such exposures over short periods can aggravate respiratory diseases, particularly asthma, leading to respiratory symptoms (such as coughing, wheezing or difficulty breathing)
- Nitrates not only affected surface water but also polluted groundwater sources
    - Assessment found that in parts of Punjab, Haryana and western Uttar Pradesh the NO3 concentration in dug well water and shallow bore-well water had exceeded the limits prescribed by the World Health Organization (WHO) by several times
    - This was the worst in Haryana, where the average NO3 content in well water was 99.5 mg/litre while the WHO limit stands at 50 mg/litre.
- N pollution also has an effect on soil health which in turn brings down the yield of crops, becoming counterproductive to the very purpose of fertiliser usage.
    - This happens because of the reduction of carbon content of the soil over a long period of time which affects its health.

Measures taken

- The government has mandated companies to sell urea fertilizer coated with neem oil.
    - The 'neem-coated urea' (NCU) is expected to not just cut subsidy burden by as much as ₹6,500 crore by reducing urea usage but
    - Also protect the soil along with acting as a natural insecticide.
- In Andhra Pradesh, farmers are adopting the Japanese concept of natural farming that involves spraying cattle dung-laced bio-inoculants in farms to stimulate microbial growth for soil nitrogen mobilization.
    - Bio-inoculants are living organisms containing strains of specific bacteria, fungi, or algae which: - take nitrogen from the air and make it available to plants- reducing the need for nitrogen fertilizer.
- Precision agriculture- which uses hi-tech approaches to apply just the right amount of nitrogen at just the right time for the plant's needs.
    - This eliminates an enormous amount of wastage without affecting yields, bringing global nitrogen application down towards or within the planetary boundary.

International Nitrogen Management System

- An 'International Nitrogen Management System (INMS)' will bring together the science community, the private sector and civil society to gather and synthesize evidence that can support international policy development to improve global nitrogen management.
- 'Towards INMS' is a 6M USD project is implemented by the UN Environment with funding through the Global Environment Facility (GEF).
- 'Towards INMS' will develop the evidence base to showcase the need for effective practices for global nitrogen management and highlight options to maximize the multiple benefits of better nitrogen use.
- The project presents a key opportunity to pull together a global and critical mass of science evidence on the nitrogen cycle, and develop a sustained process that gets science, governments, businesses and civil society working together to build common understanding and deliver real change.

International Nitrogen Initiative

- The International Nitrogen Initiative (INI) is an international program, set up in 2003 under sponsorship of the Scientific Committee on Problems of the Environment (SCOPE) and from the International Geosphere-Biosphere Program (IGBP).
- The INI holds a conference every three years, inviting members of the international nitrogen community to meet up and discuss ideas and exchange knowledge on nitrogen issues. The last INI conference was held in Melbourne, in December 2016.
- The next INI conference will be held in Berlin, Germany, in 2020

The key aims of the INI are to:

- optimize nitrogen's beneficial role in sustainable food production,
- Minimize nitrogen's negative effects on human health and the environment resulting from food and energy production.

Context

- N Raghuram elected Chair of International Nitrogen Initiative
- A professor at the GGS Indraprastha University, New Delhi, Raghuram is the first Indian and Asian to be elected to the Chair.
- He will succeed Mark Sutton of the UK Centre for Ecology and Hydrology, Edinburgh.
- Raghuram specialises in the biological determinants of nitrogen use efficiency in crops. He has been the President of the Indian Nitrogen Group and a Steering Committee member of the UNEP Global Partnership on Nutrient Management.

'India among nations that face grave danger to soil biodiversity': WWF

Context

- India's soil biodiversity is in grave peril, according to the Global Soil Biodiversity Atlas prepared by the World Wide Fund for Nature.
- The findings were part of Living Planet Report 2018.
- A key aspect of this year's report is the threat to soil biodiversity and pollinators [such as bees]

Global Soil Biodiversity Atlas

- It is a joint venture from the Global Soil Biodiversity Initiative (GSBI) and the European Commission Joint Research Centre
    - The GSBI will make better use of the knowledge that we have on soil biodiversity and ecosystem services rather than starting new research.
        - It will provide supporting examples to policy makers of possible solutions in which soil biodiversity maintenance and improvement is integral to make a difference for human-wellbeing.
        - Provide a central focus to the Global Soil Partnership for incorporating scientific knowledge on soil biodiversity and ecosystem services.
- It is the first synthesis of global soil biodiversity research and its importance to our living world.

Living Planet Report

- The Living Planet Report is published every two years by the World Wide Fund for Nature since 1998
- It is based on the Living Planet Index and ecological footprint calculations.

- It is the world's leading, science-based analysis on the health of our only planet and the impact of human activity

Soil Biodiversity

- Millions of microbial and animal species live and make up soils. Soil biodiversity is the total community from genes to species, and varies depending on the environment.
    - Soil biodiversity is the variety of life that exists within the soil, including bacteria, fungi, earthworms and termites
- The immense diversity in soil allows for a great variety of ecosystem services that benefit the species that inhabit it, the species (including us) that use it, and its surrounding environment.

Environmental Benefits

- Soil functions include: primary productivity, carbon and nutrient cycling, erosion control, the maintenance of a stable soil structure, and helping to mitigate climate change.
- Soil biodiversity ensures a healthy soil system that is necessary for the sustainable functioning of natural and managed lands.

Human Benefits

- The functions of soil organisms underpin the delivery of major ecosystem services that are critical to the wellbeing of human societies, such as water filtration and storage, food production, flood and erosion control, disease control, biodiversity conservation and climate regulation.
- Soil also has a presence in cultural aspects of the human world, providing recreation in parks and sports facilities, education with its many resources, and a link to heritage with its history in archaeology.

Concerns

- The WWF's 'risk index' for the globe — indicating threats from loss of ground diversity, pollution and nutrient over-loading, over-grazing, intensive agriculture, fire, soil erosion, desertification and climate change — shows India among countries whose soil biodiversity faces the highest level of risk.
- Coloured red on the Atlas, these include Pakistan, China, several countries in Africa and Europe, and most of North America.

- The populations of fish, birds, mammals, amphibians and reptiles have dwindled by an average of 60% from 1970 to 2014, and fresh-water species have declined by 83% in the same period.
- Since 1960, the global ecological footprint has increased by more than 190%. Globally, the extent of wetlands was estimated to have declined by 87% since 1970.
- 150 million bee colonies were needed to meet the pollination requirements of about 50 million hectares of agricultural land in India, only 1.2 million colonies were present.
- The two key drivers of biodiversity loss were the over exploitation of natural resources and agriculture
    - While India's per capita ecological footprint was less than 1.75 hectares/person (which is in the lowest band, among countries surveyed) its high population made it vulnerable to an ecological crisis, even if per-capita consumption remained at current levels
- Inch by inch, species by species, shrinking wildlife numbers are an indicator of the tremendous impact and pressure we are exerting on our planet

Solution

WWF suggests three necessary steps:

- Clearly specifying a goal for biodiversity recovery;
- developing a set of measurable and relevant indicators of progress; and
- Agreeing on a suite of actions that can collectively achieve the goal in the required time frame.

Up in the air (Delhi's atmospheric Pollution)

- For some time now, the onset of the winter season has come to be associated with toxic atmospheric pollution in north India.
- It is important to note that although road dust and pollution from heavy vehicles are primarily responsible for the noxious air that sets on Delhi and other urban centres, the burning of paddy stubble by farmers further compounds the issue.
- This practice is followed by farmers to clear their fields for the next crop, but this is considered to be responsible for 20% of the smog.

Government Initiatives:

To address this issue, and under directions from the Supreme Court-constituted Environment Pollution (Prevention and Control) Authority, or EPCA, the Centre is partnering with the states of Punjab, Haryana and Uttar Pradesh to provide farmers with a range of mechanized implements to clear their fields of paddy crop residue to prepare for sowing wheat.

- Specifically, there is a 50% subsidy to farmers, and a 75% waiver to cooperative societies, agencies that rent out equipment, farmers' interest groups or gram panchayats to buy such machines.
- Further, states have got nearly Rs. 650 crore to help farmers buy subsidised equipment such as Happy Seeder, paddy straw choppers and Zero Till Drill.
- Moreover, the state of Punjab, which of the three States has the largest acreage under paddy, has a target of procuring 24,315 machines by October 15.
- A task force, headed by the Principal Secretary to the Prime Minister and comprising Environment Ministry officials and Chief Secretaries of these States, have been meeting since January to prepare for the winter season.

Voices of Concern:

- Certain reports suggest that many farmers, particularly those with land holdings of less than 5 acres, remain skeptical of the efficiency of these machines.

- These farmers have concerns of whether or not these machines will affect productivity.
- As a matter of fact, many farmers have told officials that they are worried that there could be damage to the soil.
- Hence, it is believed that just making technological tools available may not be enough and that there needs to be proactive engagement to both persuade and reassure farmers.

Concluding Remarks:

- Surprisingly, it was technology that contributed to the problem in the first place.
- It was the rising cost of labour that prodded farmers to adopt mechanized equipment which, while efficient, left behind much longer stalks of paddy than what the traditional practice of removing them by hand did.
- The current state of affairs: the greater availability of machines and the zero-tolerance policy, need to be seen as works in progress to derive lessons on how to refine the crop-clearing process in an ecologically sound manner.
- There must also be a sense of proportion, as 80% of the atmospheric pollution in Delhi in winter draws from sources other than burning stubble.
- Lastly, given Delhi's geography, low wind speeds and a spike in local pollution, which is caused largely from vehicles, biomass burning, firecrackers, etc, raise the particulate matter count dramatically during winter.
- Thus, to be effective, the fight against pollution must necessarily be broad-based.

Nobel Economics Prize awarded to William D. Nordhaus, Paul M. Romer

Context

- The Royal Swedish Academy on October 8, 2018, decided to award the Sveriges Riksbank Prize in Economic Sciences in Memory of Alfred Nobel 2018 to William D. Nordhaus and Paul M. Romer, for "integrating innovation and climate with economic growth."
- Nordhaus was the first person to create "an integrated assessment model, i.e. a quantitative model that describes the global interplay between the economy and the climate".
- Romer "laid the foundation of what is now called endogenous growth theory. The theory is both conceptual and practical, as it explains how ideas are different to other goods and require specific conditions to thrive in a market."
- Both Dr. Nordhaus and Dr. Romer are American. The Academy also stated that the contributions by the two economists provided us "with fundamental insights into the causes and consequences of technological innovation and climate change.
- This year's Laureates do not deliver conclusive answers, but their findings have brought us considerably closer to answering the question of how we can achieve sustained and sustainable global economic growth."

What is Climate Change?

- Climate change' as a change of climate which is attributed directly or indirectly to human activity that alters the composition of the global atmosphere and which is in addition to natural climate variability observed over comparable time periods.
- The major characteristics of climate change include rise in average global temperature, ice cap melting, changes in precipitation, and increase in ocean temperature leading to sea level rise.

8. HEALTH ISSUES

Acute Critical Care Course (ACCC)

Context:

- The Acute Critical Care Course (ACCC), developed in the early 1980s in Europe, has come as a boon for medical institutions abroad by reducing the death rate of patients by nearly 10%, even in serious health complications including sepsis.
- The two-day course has become mandatory for surgical trainees both in the U.S. and the U.K., which annually lose over four lakh and 98,000 patients, respectively, due to medical errors.

India's Case

- With nearly 50,00,000 Indians dying due to medical negligence every year, experts claim that a specialised course for doctors and hospital staff focusing on how a critically ill or injured patient should be handled could bring down the figure by almost 50%.
- A study by the Harvard University last year showed that nearly 50 lakh deaths occur in India annually due to medical errors triggered by lack of practical knowledge among the doctors and nurses to handle patients when brought to the hospital.

How will ACCC help?

- The ACCC aims to train the medicine specialists and the surgeons of various specialization such as surgical, gynecology, orthopedics and emergency to suspect and identify patients at a risk of deterioration.
- Implementing the course in Indian hospitals, especially in the rural areas, can bring down the mortality rates due to medical negligence by nearly 50%.
- The comprehensive course includes imparting training to the new and existing doctors of a hospital receiving critical care patients either on a high fidelity simulation or preserved dead bodies to make them understand the crucial steps to prevent errors.
- ACCC is specially designed for those hospitals where doctors do not have practical knowledge about handling patients that require critical care.
- This course takes care of prevention of small mistakes that make it life-threatening for the patient, be it administering IV fluids in patients, minor surgeries or anything else.
- In many cases of medical negligence in India, delay in taking care of breathing leads to organ dysfunction and poorer outcome even if given the best treatment.
- The fundamentals taught are as part of the course are not just confined to general surgery, but also to the cases of gynecology, gastrointestinal, cardiovascular, and pulmonary.
- Most of the new doctors are not well-versed in identifying and managing unexpected adverse events which have an enormous impact on the outcome of a patient's health.
- However, ACCC has not spread far and wide in India with only 450 doctors across the country completing the course.
- The concept of ACCC came into existence after England's Hillsborough disaster, a fatal human crush during an FA Cup semi-final match between Liverpool and Nottingham Forest in 1989 when over 96 people were killed and nearly 800 injured.

- According to the experts, the death toll could have been much lower if adequate medical arrangements were available in hospitals.

Anthrax

- Anthrax is a disease caused by Bacillus anthracis, a germ that lives in soil.
- It affects animals such as cattle, sheep, and goats more often than people. People can get anthrax from contact with infected animals, wool, meat, or hides.
- Anthrax does not spread directly from one infected animal or person to another; it is spread by spores. These spores can be transported by clothing or shoes.
- Respiratory infection in humans initially presents with cold or flu-like symptoms for several days, followed by pneumonia and severe (and often fatal) respiratory collapse.
- Gastrointestinal (GI) infection in humans is most often caused by consuming anthrax-infected meat and is characterized by serious GI difficulty, vomiting of blood, severe diarrhea, acute inflammation of the intestinal tract, and loss of appetite.
- Cutaneous anthrax, also known as Hide porter's disease, is the cutaneous (on the skin) manifestation of anthrax infection in humans. It presents as a boil-like skin lesion that eventually forms an ulcer with a black center (eschar).
- Occupational exposure to infected animals or their products (such as skin, wool, and meat) is the usual pathway of exposure for humans. Workers who are exposed to dead animals and animal products are at the highest risk, especially in countries where anthrax is more common.
- Anthrax can be contracted in laboratory accidents or by handling infected animals or their wool or hides.
- Anthrax has been used in biological warfare by agents and by terrorists to intentionally infect.
- The standard treatment for anthrax is a 60-day course of an antibiotic. Treatment is most effective when started as soon as possible.
- Although some cases of anthrax respond to antibiotics, advanced inhalation anthrax may not.
- By the later stages of the disease, the bacteria have often produced more toxins than drugs can eliminate.

Context

- Seven villagers of Kodandarama Puram in Karveti Nagaram mandal, 65 km from Chittoor in Andhra Pradesh, were suspected to have symptoms of anthrax (Bacillus anthracis).
- Personnel of the Animal Husbandry Department said that 18 cows and buffaloes and six sheep had died during the last fortnight.

C-section use doubled in India between 2005 and 2015: Lancet

Context

- According to a series of three papers published in The Lancet journal, the number of babies born in India through caesarean section increased from 9% in 2005-6 to 18.5% in 2015-16, it also found that C-section use almost doubled worldwide between 2000 and 2015.
- C-section is a life-saving intervention for women and newborns when complications occur, such as bleeding, foetal distress, hypertensive disease, and babies in abnormal position.

Important data

- The surgery is still unavailable for many women and children in low-income countries and regions, the procedure is overused in many middle-and high-income settings
- Globally, C-section use has increased by 3.7% each year between 2000-2015 — rising from 12% of live births (16 million of 131.9 million) in 2000, to 21% of live births (29.7 million of 140.6 million) in 2015
- The South Asia region has seen the most rapid increase in use (6.1% per year), with C-section being underused in 2000 but being overused by 2015 (increasing from 7.2% of births via C-section to 18.1%).
- Improvements have been slow across sub-Saharan Africa (around 2% per year), where C-section use has remained low, increasing from 3% to 4.1% of births in West and Central Africa, and from 4.6% to 6.2% in Eastern and Southern Africa.

Risks involved

- The surgery is not without risk for mother and child, as it is associated with complications in future births
- It is estimated that 10-15% of births medically require a C-section due to complications, suggesting that average C-section use should lie between these levels

Dyslexia

- Dyslexia is broadly described as difficulty in acquiring age-appropriate reading skills in spite of opportunity and instruction.
- October is 'World Dyslexia Awareness' month.

Neuroplasticity

Developments in the 'science of learning' have shown that reading is acquired because of a process called neuroplasticity.

- It is the brain's ability to reorganize itself by forming new neural connections throughout life. It can be called as muscle building of brain as it tends to change its response to new information
- This new mapping which happens because of 'neuroplasticity' now forms a reading circuit in the brain. This means that the brain is 'malleable'.
- Neuroscience research also shows that the brain learns best if it is taught in ways that use all the senses — also called 'multisensory learning'.
- Finally, we also now know that learning requires 'practice'. The brain works like a muscle, and repeating the process helps the child build a strong and stable reading circuit.

Causes

- Neuroscience has firmly established that dyslexia is due to neurobiological differences in brain wiring and structure; it also has a strong genetic basis.
    - A family history of dyslexia or other learning disabilities
- Premature birth or low birth weight
- Exposure during pregnancy to nicotine, drugs, alcohol or infection that may alter brain development in the fetus

Concerns

- Governments everywhere need to recognise that one of the biggest reasons for students dropping out of school is because of dyslexia.

- A study in the U.K., in 2012, showed that 53% of (2,029) prisoners were dyslexic, compared to 10% of the U.K.'s population.

SDG on literacy

- Goal 4 of the United Nations Sustainable Development Goals (SDGs) says that universal literacy in education (of which reading is a primary component) must be achieved by 2030.
- Given that population statistics indicate that the incidence in dyslexia is as high as 8-10 % (which means 8 to 10 people in a room of 100) cannot read well, it will be impossible to achieve Goal 4 for 'universal literacy'.

How then can we ensure that Goal 4 is achieved?

A three-fold action plan could be tried out.

- One, build awareness of dyslexia. All teachers should know how the brain works, how it learns and the fact that we each have a different brain.
    - Education systems need to be designed to be flexible, to accommodate diversity in the classroom.
- Two, build awareness among parents and doctors about 'dyslexia'. Strangely, many doctors, especially pediatricians, don't know enough about dyslexia and, therefore, this needs to be part of their programmes too.
    - The 'out of the box' unconventional thinking ability needs to be nurtured and encouraged.
- Three, build this into policy. India has made a head start here.
    - Specific Learning Disability (SLD) was included in the Rights of Persons With Disabilities Act, 2016.
    - While the government is struggling to find the right ways to implement it, this movement needs momentum.

Conclusion

- In an age where technology reads to you (audiobooks) and computers write for you and calculators add for you, it may be time to revise the definition of education in Goal 4 — from 'education for literacy' to 'education for humanity'.
- The description of dyslexia needs to change — from a 'learning disability' to a 'learning difference'.

`MedWatch' By the Indian Air Force

Context

- On the occasion of its 85th anniversary, the Indian Air Force has launched an innovative mobile health App named `MedWatch' in keeping with the Prime Minister's vision of 'Digital India'
- 'MedWatch', the first mobile health app in the three Armed Services, was launched by Air Chief Marshal BS Dhanoa

Details

- The concept and content of the App is by the Directorate General of Medical Services (Air) and it has been developed in-house with zero financial outlay by the Directorate of Information Technology (DIT).
- The app is available on www.apps.mgov.gov.in and comprises a host of features like information on basic First Aid, health topics and nutritional facts; reminders for timely Medical Review, vaccination and utility tools like Health Record Card, BMI calculator, helpline numbers and web links

- A Reminder Tool to enable timely immunization for the children of all Air Warriors is an important component of the App.
- This will directly enable 'Mission Indradhanush' of the Govt of India.

Monkeypox

- It is a rare viral zoonotic disease that occurs primarily in remote parts of central and west Africa, near tropical rainforests.
- The monkeypox virus is similar to human smallpox, a disease that has been eradicated in 1980. Although monkeypox is much milder than smallpox, it can be fatal.
- The monkeypox virus is mostly transmitted to people from various wild animals such as rodents and primates but has limited secondary spread through human-to-human transmission.
- Human monkeypox was first identified in humans in 1970 in the Democratic Republic of Congo

Transmission

- Infection of index cases results from direct contact with the blood, bodily fluids, or cutaneous or mucosal lesions of infected animals.
- In Africa human infections have been documented through the handling of infected monkeys, Gambian giant rats and squirrels, with rodents being the most likely reservoir of the virus.
- Eating inadequately cooked meat of infected animals is a possible risk factor.

Signs and symptoms

- the invasion period (0-5 days) characterized by fever, intense headache, lymphadenopathy (swelling of the lymph node), back pain, myalgia (muscle ache) and an intense asthenia (lack of energy);
- the skin eruption period (within 1-3 days after appearance of fever) in which the various stages of the rash appear often beginning on the face and then spreading elsewhere on the body

Treatment and vaccine

- There are no specific treatments or vaccines available for monkeypox infection, but outbreaks can be controlled.
- Vaccination against smallpox has been proven to be 85% effective in preventing monkeypox in the past but the vaccine is no longer available to the general public after it was discontinued following global smallpox eradication.
- Prior smallpox vaccination will likely result in a milder disease course.

National Health Resource Repository (NHRR)

- It is country's first ever national healthcare facility registry of authentic, standardized and updated geo-spatial data of all public & private healthcare establishments.
- The vision of the NHRR project is to strengthen evidence-based decision making and develop a platform for citizen and provider-centric services by creating a robust, standardized and secured IT-enabled repository of India's healthcare resources.
- NHRR will be the ultimate platform for comprehensive information of both, Private and Public healthcare establishments including Railways, ESIC, Defense and Petroleum healthcare establishment
- NHRR will cohesively work with Ayushman Bharat - National Health Protection Mission (AB-NHPM) and Central TB Division (CTD) on an integrated plan for the larger benefit of ensuing Hospital empanelment and private sector engagement.

Significance

- The platform will be very useful for all key stakeholders – government, private health establishments and the public.
- It shall also enhance the coordination between central and state government for optimization of health resources, making 'live' and realistic state PIPs and improving accessibility of data at all levels, including State HODs, thus, decentralize the decision making at district and state level.
- It shall identify key areas of improvement by upgrading existing health facilities or establishing new health facilities keeping in view the population density, geographic nature, health condition, distance, etc.
- The result shall be enhanced center and state government coordination to ensure intelligent use of health resources to ensure superior health access, service delivery and improve transparency & accountability for effective centre-to-state funding.
- The project shall improve the visibility of Private providers to enable Public-Private Partnerships.

National Institute of Mental Health Rehabilitation (NIMHR)

- The Union Cabinet has approved the establishment of NIMHR in Sehore District (Bhopal-Sehore highway) instead of Bhopal in Madhya Pradesh.
- NIMHR will be the first of its kind in the country in the area of mental health rehabilitation.
- It will be established as society under Societies Registration Act, 1860. It will function under Department of Empowerment of Persons with Disabilities
- The main objectives of the NIMHR is to provide rehabilitation services to the persons with mental illness, capacity development in the area of mental health rehabilitation, policy framing and advanced research in mental health rehabilitation.
- It will serve as an institution of excellence for capacity building in human resource and also recommending body suggesting models/protocols for effective rehabilitation of persons with mental illness

Osteoporosis

Context

- On the World Osteoporosis Day celebrated on October 20th, one of the research shows pollution accelerates the process of bone deterioration and doctors have said People more exposed to pollutants experience faster bone loss

World Osteoporosis Day

- The aim of World Osteoporosis Day is to promote worldwide awareness of osteoporosis and fragility fractures.
- The day aims at bringing concerns of joint health, muscle health and bone health on the forefront by reaching out to health-care professionals, policy makers, media and the public at large.
- World Osteoporosis Day calls out to the general public to take early action and protect their bone and muscle health in order to enjoy good quality of life and live a life devoid of any dependence physically.

Osteoporosis

- It is a common problem and occurs due to decrease in bone density over time. It literally means "porous bones".

- Bone density peaks when a person is in their late 20s.
    - After the age of around 35 years, bone starts to become weaker.
    - As we age, bone breaks down faster than it builds. If this happens excessively, osteoporosis results.
- As the bones become weaker it increases the risk of fractures, especially in the hip, spinal vertebrae and wrist.
- In addition to causing constant pain, osteoporosis causes some patients to lose height or their spine starts curving.
- When osteoporosis affects vertebrae, or the bones of the spine, it often leads to a stooped or hunched posture. It may also limit mobility.

Symptoms

- There are no such symptoms in the early stages of bone loss.
- But once your bones have been weakened by osteoporosis, you may have signs and symptoms that include — back pain, caused by a fractured, loss of height over time and a bone fracture that occurs much more easily than expected
- It is a common disorder among elderly people.
- Till the age of 50-55 men are more at risk of developing these diseases.
- But menopause in women worsens the equation.
    - Estrogen, the female hormone, lends a protective cover to the bone cartilage which reduces its wear and tear.
    - After menopause, as the amount of estrogen hormone in the female body lessens, women become more at risk of arthritis and osteoporosis
- Osteoporosis may also occur due to a number of diseases or treatments, including alcoholism, anorexia, hyperthyroidism, kidney disease, and surgical removal of the ovaries

Recommendations to stay fit

- Doctors suggested early diagnosis, regular exercise and healthy diet are what people should follow to avoid occurrence of the bone disease in later stages of life.
- A diet with more vegetables and fruits will lead to stronger bones. These foods are generally low in calories and fat. Not to mention they are high in fiber and contain essential vitamins and minerals.
- The mineral; calcium is an important building block of bone. It helps prevent bone loss and osteoporotic fractures in older people. Include dairy products like milk, yogurt, buttermilk, cottage cheese, cheese and tofu in your diet for adequate calcium.
- smoking and excessive alcohol intake can be avoided

South-East Asia Regulatory Network (SEARN)

- It is a platform to facilitate research collaboration based at the London School of Hygiene & Tropical Medicine (LSHTM)
- It provides a forum to support the communication and dissemination of research findings, highlight research areas and a network connecting people in LSHTM and collaborators outside with an interest in South East Asia

Context

- Shri J P Nadda released the Position Paper and launched the Information Sharing Platform Gateway for South-East Asia Regulatory Network (SEARN) developed by Centre for Development of Advanced Computing, which will promote regulatory and health collaboration among the countries of the South-East Asia Region.

Zika

- Zika virus reaches people mainly through the bite of an infected Aedes mosquito.
- This is the same mosquito that transmits dengue, chikungunya and yellow fever.
- It can also spread during sexual intercourse with an infected person, from a pregnant woman to her foetus during pregnancy or around the time of birth, and through blood transfusion

Symptoms

- Symptoms of Zika virus disease are similar to other viral infections such as dengue, and include fever, skin rashes, conjunctivitis, muscle and joint pain, malaise, and headache.
- Mild symptoms include fever, rash, headache, joint pain, red eyes, and muscle pain.
- Rarely, serious complications include GuillainBarré syndrome which causes potentially fatal muscle weakness and acute respiratory distress syndrome. Symptoms can last for several days to a week.
- Zika virus infection during pregnancy can cause infants to be born with microcephaly and other congenital malformations, known as congenital Zika syndrome. Infection with Zika virus is also associated with other complications of pregnancy including preterm birth and miscarriage.

Treatment

- There is no vaccine to prevent Zika
- Treatment is mainly symptomatic, that includes bed rest, drinking fluids to prevent dehydration and paracetamol to reduce fever and pain.

Measures to be taken

- Zika infection during pregnancy can cause severe birth defects, particularly microcephaly (small size of the head), as there is no cure for microcephaly at birth, there should be campaigns to educate people living in the outbreak area to avoid sex, particularly with the intent of getting pregnant, till the outbreak is under control.
- The long winter ahead in north India and the imminent onset of the northeast monsoon in the eastern coast of India is conducive for the mosquito to multiply and spread. This calls for a high level of alert.

India ranks fifth in world in pictorial warnings on cigarette packets

Context

- Canadian cancer society recently released the sixth edition of Cigarette Package Health Warnings: International Status Report in Geneva at WHO framework convention on tobacco control conference, which provides an international overview ranking 206 countries/ jurisdictions based on warning size, and lists those that have finalized requirements for picture warnings.

Canadian Cancer Society

- The Canadian Cancer Society is a national, community-based organization of volunteers whose mission is the eradication of cancer and the enhancement of the quality of life of people living with cancer.

Details

- 118 countries/jurisdictions worldwide have made picture warnings on cigarettes mandatory, representing a global public health achievement.
    - In 2016, 100 countries/jurisdictions had implemented picture warnings.
    - Canada was the first country to implement picture warnings in 2001
- In total, 107 countries in the world have made pictorial warnings larger than at least 50 per cent mandatory
- It has ranked 206 countries and territories on the size of their health warnings on cigarette packages, and lists countries and territories that require graphic picture warnings.

India's ranking

- India has been ranked fifth in the listing of countries that have pictorial health warning on tobacco products, with experts here quick to add that the country is making tremendous progress towards creating public awareness on the health hazards of tobacco abuse.
- Indian packaging has the warning on 85% of both sides.
- India, meanwhile, is the only SAARC country to have a Quit-Line number on tobacco products and the fourth in Asia after Thailand, Malaysia and Singapore.

Quit-Line number

- The pack warning will help to warn people, especially the illiterate and children, about the harms of tobacco consumption. The Quit-Line number will help those who want to quit
- The current pictorial warnings on both sides of all packets of cigarettes, bidis and all forms of chewing tobacco products in India came into effect in April 2016 on the direction of the Rajasthan High Court and, subsequently, the Supreme Court of India.

Other Countries

- East Timor is ranked first with 85% of the front and 100% of the back of the packaging being used for pictorial warnings.
- Nepal follows with 90% coverage on both sides.
- New Zealand is at fourth with 87.5 per cent
- India, Hong Kong and Thailand hold fifth place jointly with 85 per cent cigarette warnings

Significance

- Pictorial health warnings on tobacco products are the most cost-effective tool for educating people on the health risks of tobacco use.
- In a country like India, where people use several languages and dialects, the pictorial warning transcends the language and in many cases also the illiteracy barrier.
- The 85% pictorial warnings on all cigarettes, bidis and chewing tobacco packages manufactured and sold in India have resulted in 92% of adults (surveyed under GATS 2016-2017) believing that smoking caused serious illness and 96% saying use of smokeless tobacco causes serious illness

The value of a health scheme

Larger Background:

- The poor condition of healthcare in the country is not a secret, especially in India's villages where infrastructure is in a dilapidated state. Government hospitals often fail to provide necessary health services to the poor, with private hospitals being out of the reach of most people. The country's growing population and lack of resources has made matters worse. According to the 2011 census, India's population is over 1.2 Billion, make it the second most populous nation in the world after, China.
- Many organizations, including the United Nations have estimated that by 2025, India would be the most populated nation in the world, surpassing China.
- More than 32% of total deaths in India are due to heart-related ailments. According to the Global Burden of Disease study, India is ranked low in the Healthcare index; India stands at a rank of 154. This index is out of 194 countries. But despite this, the budget allotment on healthcare services is extremely low.
- India spends less than 2% of her GDP on public healthcare. But now the Government is working on improving public healthcare services. The National Health Protection Mission or Ayushman Bharat Yojana, launched by the Government is the first major step in this direction. Ayushman Bharat Yojana is a program which aims to create a healthy, capable and content new India. It will also focus on the poor and weaker sections of the society. It aims to provide insurance of upto 5 lakh rupees to each family. The new scheme also intends to improve secondary and tertiary healthcare services for crores of Indians.

There are two flagship initiatives under Ayushman Bharat:

1. The first is to create a network of health and wellness centres that will bring the healthcare system closer to the people. The centres will provide comprehensive healthcare, including treatment for non-communicable diseases and maternal and child health services. Besides this, they will also provide free essential drugs and diagnostic services; also Rs. 1200 crore have been allocated for this flagship programme.

The scheme will cover more than 10 crore poor families, which is approximately 50 crore persons. It will also setup wellness centres which will give poor people OPD facility near their homes.

1. The second flagship programme under 'Ayushman Bharat' is the 'National Health Protection Scheme'. The National Health Protection Scheme will cover over 10 crore poor and vulnerable families. It will provide coverage up to 5 lakh rupees per family, per year for secondary and tertiary care hospitalization.
2. Universal health coverage is getting prioritised as a part of political reform with the launch of two pillars.

The pillars are the

Pradhan Mantri Jan Arogya Yojana (PMJAY): Ayushman Bharat (AB)

Under this scheme, 1.5 lakh health sub-centres are being converted into health and wellness centres.

The National Health Protection Mission (NHPM)

This aims to provide health cover of Rs. 5 lakh per family, per annum, reaching out to 500 million people.

- It is important to note that the "best health care at the lowest possible cost" should be:

a. inclusive
b. make health-care providers accountable for cost and quality
c. achieve a reduction in disease burden, and
d. Eliminate catastrophic health expenditures for the consumer.

A Few Noteworthy Points:

- The Ayushman Bharat Scheme will provide guaranteed access to treatment that is free at the point of delivery to about 40% of the population selected on the basis of censused socio-economic indicators.
- Experts believe that this is the essential first step on the road to universal health coverage.
- Ever since the Centre has announced that 10.74 crore families identified through the Socio-Economic Caste Census data will be given an annual Rs. 5 lakh cover under the Pradhan Mantri Jan Arogya Yojana (the insurance component of the scheme), the question of eligibility appears settled.
- The allocation of just Rs. 2,000 crore during the current year to the PMJAY (Pradhan Mantri Jan Arogya Yojana) cannot provide the promised cover to the large population sought to be included.
- Unfortunately, not all States and Union Territories are in a position to raise their own share, and a few of the States have not even joined the scheme.
- Thus, the challenge of funding remains.
- Further, without adequate budgetary commitments, the implications of pooling the financial risk for such a large segment of the population of India through a) insurers or b) state-run trusts or societies make the outcomes uncertain.

Certain Points to Ponder:

- Guaranteeing health-care access using private or public facilities presumes tight cost control.
- However, in the case of the PMJAY, this is to be achieved using defined treatment packages for which rates are prescribed.
- There are issues which need to be ironed out as well. For example, costs are a contested area between the care-providers and the Centre, and many for-profit hospitals see the government's proposals as unviable.
- Experts believe that the State governments should have been persuaded to regulate the hospital sector under the Clinical Establishments (Registration and Regulation) Act, which dates back to 2010.
- Further, the law broadly provides for standardization of facilities and reasonable rates for procedures. However, apprehensions of fraud have prompted Ayushman Bharat administrators to announce that some key treatments should be availed through public sector institutions. Unfortunately, public facilities have been neglected for long.
- Also, it is essential to reduce the pressure on secondary and tertiary hospitals for expensive treatments by investing in preventive and primary care facilities.
- It is in these sectors that the 150,000 healths and wellness centres of the National Health Protection Mission can play a valuable role.
- Finally, the first-order priority should be to draw up a road map for universal health coverage, through continuous upgradation of the public sector infrastructure.

Editorial Analysis:

- On September 24, 2018, the government launched the ambitious government-funded healthcare scheme, the Ayushman Bharat-Pradhan Mantri Jan Arogya Yojana (PMJAY).
- While some see its ambitious goals as its main strength, others are sceptical given the inadequate funding for the scheme, the weak infrastructure of primary health care centres, and the time required for the goals to be accomplished.
- However, it is important to note that nobody disputes the imperative of an insurance scheme as vast as the PMJAY, since every year about 36 million families, or 14% of households, face a medical bill that is

equal to the entire annual living expenses of one member of the family. This frequently pushes many families into penury.

A Closer Look at the Schemes: The RSBY and the PMJAY

- It is important to take note of a precedent. For example, the Rashtriya Swasthya Bima Yojana (RSBY), which was launched in 2008?
- Although the PMJAY is much wider in its reach than the RSBY (it covers 50 crore beneficiaries with Rs. 3,500 crore of government spending and provides benefits up to Rs. 5 lakh per eligible family), the central framework is the same: universal health care and health rights.
- The emerging discourse surrounding the PMJAY scheme resonates with those of RSBY. The focus continues to be on the top-down, deductive reasoning of the scheme, including issues such as allocation of funds for each illness, the types of care provided, financial considerations for empanelment of hospitals, types of illnesses covered, and transaction costs.
- These considerations matter. However, there are important missing links.
- A recent study of the RSBY in Karnataka conducted by an expert (Vani S. Kulkarni teaches sociology at the University of Pennsylvania, Philadelphia, U.S.), yielded important insights that are pertinent here.
- Given that RSBY was embedded within the framework of universal health care and health rights, it is appropriate to pay attention to the existence of health rights in a local set-up.
- What was discovered was that the way beneficiaries of RSBY (Below Poverty Line households) perceived the scheme was not as a health right but in terms of the value it imparted, which was measured along multiple dimensions.
- Households initially measured the value of the RSBY in terms of its material benefit and measurable impact. This included the financial ease it provided in taking care of illnesses, the expense and types of illnesses that the card covered, and the transaction costs it included, i.e. how easy it would be to use the card in terms of bureaucratic paperwork and formal procedures.
  Further, households also valued the RSBY beyond its visible impact. They had little value for the RSBY because of many reasons.

These reasons are as under mentioned:

- Officials who distributed the RSBY smart card did not provide information on how to use the card.
- Hospitals did not respect patients with the card, believing that they were availing medical care free of cost. Sometimes they did not honour the card either due to inaccuracy of fingerprints or lack of money on the card.
- Neighbours and family members did not discuss the utilisation of the card, making households perceive the card as just a showpiece: important to possess but not useful.
- Finally, the lack of involvement and endorsement by local leaders further diminished the value of the card for the households.

Finally, it is important to note that as the delivery of universal health care and health rights find yet another expression in India through the PMJAY scheme, it is crucial, now more than ever before to explore how citizens exercise their right to health and understand how it could be better practiced

The biggest challenges for the success of the PMJAY scheme are not just financial and infrastructural at the local level, but how its value is perceived by the community

9. EDUCATION

IIT-Bombay tops in QS ranking of Indian institutions

Context

- Indian Institute of Technology, Bombay, has topped the first-ever standalone ranking of Indian higher education institutions by QS, a think tank that is famous for bringing out world rankings of institutions.

Ranking

- Indian Institute of Science, Bengaluru, which tops Indian institutions in almost all rankings, stands second.
- The top 10 Indian institutions include seven IITs, with the IITs at Madras, Delhi, Kharagpur and Kanpur standing third, fourth, fifth and sixth, respectively, in the rankings.
- The University of Hyderabad stands seventh, the University of Delhi stands eighth in the rankings.

Criteria

Institutions have been scored on academic reputation (30 per cent), employer reputation (20 per cent), faculty-student ratio (20 per cent), proportion of staff with PhD (10 per cent), papers per faculty from Scopus database (10 per cent), citations per paper from Scopus database (5 per cent), proportion of international students (2.5 per cent) and proportion of international faculty (2.5 per cent).

Measures taken by Govt to improve ranking

- To improve global rankings of Indian institutions, the Centre is trying to facilitate more foreign faculty and foreign students' intake in Indian institutions.
    - It is working to permit the hiring of regular foreign faculty in Indian institutions.
- In institutions of eminence, it is permitting the admission of foreign students to the tune of 30% of the student strength and foreign faculty to the tune of 25% of the faculty strength.
- Within the framework of graded autonomy — allowing higher autonomy for the best institutions — too, the Centre is granting more autonomy to top institutions to hire foreign faculty and admit foreign students.

Impactful Policy Research in Social Science (IMPRESS)

- Under the Scheme, 1500 research projects will be awarded for 2 years to support the social science research in the higher educational institutions and to enable research to guide policy making.

The broad objectives of the scheme are:

- To identify and fund research proposals in social sciences with maximum impact on the governance and society.
- To focus research on (11) broad thematic areas such as : State and Democracy, Urban transformation, Media, Culture and Society, Employment, Skills and Rural transformation, Governance, Innovation and Public Policy, Growth, Macro-trade and Economic Policy, Agriculture and Rural Development, Health and Environment, Science and Education, Social Media and Technology, Politics, Law and Economics.

The Sub-Theme areas will be decided on the basis of Expert Groups' advice before notifying the scheme and calling for applications.

- To ensure selection of projects through a transparent, competitive process on online mode.
- To provide opportunity for social science researchers in any institution in the country, including all Universities (Central and State), private institutions with 12(B) status conferred by UGC.
- ICSSR funded/recognized research institutes will also be eligible to submit research proposals on the given themes and sub-themes.

Scheme for Promotion of Academic and Research Collaboration (SPARC)

- It is a scheme that aims at improving the research ecosystem of India's higher educational institutions by facilitating academic and research collaborations between Indian Institutions and the best institutions in the world.
- Under this Scheme, 600 joint research proposals will be awarded for 2 years to facilitate strong research collaboration between Indian research groups with the best in class faculty and renowned research groups in the leading universities of the world, in areas that are at the cutting edge of science or with direct social relevance to the mankind, specifically India.

Significance

This Scheme is expected to have a major impact in providing the best international expertise to address major national problems, expose Indian academicians to the best collaborators abroad, enable international faculty to stay in India for a longer duration, provide Indian students an opportunity to work in the world class laboratories, to develop strong bilateral relationships in research, and improve the international ranking of Indian Institutes.

10. ART AND CULTURE

Annapurna Devi

- Born in Maihar, Madhya Pradesh to Ustad Baba Allauddin Khan and Madina Begum in 1927, Annapurna Devi was the youngest of four children.
- Alauddin Khan was a royal court musician at the court of Maharaja Brijnath Singh, who named the newborn girl 'Annapurna'.
- She was awarded the Padma Bhushan in 1977 and the Sangeet Natak Akademi Award in 1991. The Sangeet Natak Akademi appointed her as the prestigious 'Ratna' fellow in 2004.

Maihar gharana

- The school was formed by Allaudin Khan in the princely state of Maihar, now in Madhya Pradesh
- Allauddin Khan learnt music from Wazir Khan, an exponent of the Senia gharana.
    - The Maihar gharana is therefore sometimes referred to as the Maihar-Senia gharana
- The Maihar gharana is a gharana or school of Hindustani classical music,
    - The word gharana comes from the Hindi word 'ghar' which is derived from Sanskrit for Griha, which means 'house'.
    - It is an adherence to a particular musical style.
- It is a style of Indian classical music originating in the northern parts of the Indian subcontinent.
- Prominent musicians belonging to the Maihar gharana include prominent sitar players Ravi Shankar, Allauddin Khan's son sarod player Ali Akbar Khan, daughter Annapurna Devi and grandson Aashish Khan.

Banni Utsavam

- It is a traditional stick fight held during dussehra in kurnool in Andhra
- This happens during the procession of the idols of Sri Malleswara Swamy and Sri Malamma, the presiding deities of Sri Mala Malleswara Swamy temple

Philosophy

- According to a legend, two demons Mani and Mallasura lived in Devaragattu hillocks and tortured saints who undertook penance.
- Unable to bear the torture of the demons, the saints prayed to Lord Parameswara and Parvati to rescue them from the demons.
- The Lord appeared as "moola virat" in Kurmavatharam form on a stone atop the hillock and eliminated the demons on the night of Vijayadasami.
- Before dying at "Rakshapada", the demons prayed to the almighty to give them human sacrifice every year.
- Refusing their request, the Lord assured offering of a fistful of blood in "Rakshapada" area on the night of Vijayadasami

Present Scenario

- Marking the occasion, villagers offer prayers to Sri Mala Malleswara Swamy and Parvati Devi and run down the hillock carrying the idols.
- As the deities are carried on "aswavahanam" by a group of persons, thousands of persons carrying flaming torches and long sticks
- They wield sticks in a bid to stop the aswavahanam from going forward, with the belief that people of the village prosper if they manage to stop its movement for some time. In the fierce struggle, several persons sustain injuries on their head and limbs, but they smear sandalwood paste called "Bandaru" and move forward.
- The blood that spills to the ground in the stick fight is considered an offering to the Lord.

Bara Imambara

- Bara Imambara is in Lucknow, built by Asaf-ud-Daula, Nawab of Awadh, in 1784. It is also called the Asafi Imambara.
- Bara means big, and imambara is a sacred hall built for the purpose of Azadari (Rituals).

Relief measure

- Construction of Bara Imambara was started in 1785, a year of a devastating famine, and one of Asaf-ud-Daula's objectives in embarking on this grandiose project was to provide employment for people in the region for almost a decade while the famine lasted.
- It is said that ordinary people used to work in the day building up the edifice, while noblemen and other elite worked at night to break down anything that was raised that day.
- It was a project that preceded a Keynesian like intervention for employment generation. Construction of the Imambara was completed in 1791.
- Estimated cost of building the Imambara ranges between half a million rupees to a million rupees. Even after completion, the Nawab used to spend between four and five hundred thousand rupees on its decoration annually.

Bathukamma

- The festival known as Bathukamma is Telangana's floral festival, traditionally celebrated by women across the state.
- Every year this festival is celebrated as per Telugu version of Hindu calendar in the Bhadrapada Amavasya, also known as Mahalaya Amavasya, usually in September–October of Gregorian calendar.
- The festival is celebrated for nine days during Durga Navratri.
- In Telugu, 'Bathukamma' means 'Mother Goddess come Alive'.
- Bathukamma is followed by Boddemma, which is a 7-day festival.
- Boddemma festival that marks the ending of Varsha Ruthu whereas Bathukamma festival indicates the beginning of Sarad or Sharath Ruthu.

Bhuli Bhatiyari ka Mahal

- It is a 14th century monument built during the Tughlaq era by ferozeshah Tughlaq
- It was an inn or a hunting lodge for the royal parties.
- Bhuli Bhatiyari ka mahal is now nearly a ruin, protected under the archeological survey of India.

Charbagh

- It is a Persian and Islamic quadrilateral garden layout based on the four gardens of Paradise.
- The first tomb to be built on the Persian charbagh plan of paradisiacal tombs was Humayun's Tomb in Delhi.
- According to that plan, the tomb is placed squarely in the centre of the charbagh.
- The Taj Mahal, also modelled on the same theme, is at an edge of the garden.

Experiencing North East festival

- The 'Experiencing North East' festival depicting the uniqueness of North Eastern culture is being organised at India International Centre (IIC), New Delhi
- The festival, a part of Destination North East series, is being organised by North Eastern Council (NEC), Ministry of Development of North Eastern Region (DoNER) in collaboration with India International Centre.
- The festival will showcase the vibrant strengths of North East India and display its art, handicraft, handlooms, tourism, food, culture etc.
- There will be special performances daily by eminent cultural troupes, bands and artistes from North East, including Nise Meruno, classical pianist and vocalist.

Garba

- It is a form of dance which originated in Gujarat
- The name is derived from the Sanskrit term Garbha ("womb") and Deep ("a small earthenware lamp").
- Traditionally, the dance is performed around a clay lantern with a light inside, called a Garbha Deep ("womb lamp").
- This lantern represents life and the fetus in the womb in particular.
- The dancers thus honor Durga, the feminine form of divinity.
- It is performed during the nine-day Hindu festival Navarātrī

Philosophy

- Garba is performed in a circle as a symbol of the Hindu view of time. The rings of dancers revolve in cycles, as time in Hinduism is cyclical.
- As the cycle of time revolves, from birth, to life, to death and again to rebirth, the only thing that is constant is the Goddess, that one unmoving symbol in the midst of all of this unending and infinite movement.
- The dance symbolizes that God, represented in feminine form in this case, is the only thing that remains unchanging in a constantly changing universe (jagat).

Global Geoparks

- UNESCO Global Geoparks are single, unified geographical areas where sites and landscapes of international geological significance are managed with a holistic concept of protection, education and sustainable development.
- It involves bottom-up approach of combining conservation with sustainable development while including local communities
- A UNESCO Global Geopark uses its geological heritage, in connection with all other aspects of the area's natural and cultural heritage, to enhance awareness and understanding of key issues facing society, mitigating the effects of climate change and reducing the impact of natural disasters.

Criteria

- An aspiring Global Geopark must have a dedicated website,
- a corporate identity,
- comprehensive management plan,
- protection plans,
- Finance and partnerships for it to be accepted.

Differences

UNESCO Global Geoparks, together with the other two UNESCO site designations Biosphere Reserves and World Heritage Sites, give a complete picture of celebrating our heritage while at the same time conserving the world's cultural, biological and geological diversity, and promoting sustainable economic development.

- Biosphere Reserves focus on the harmonized management of biological and cultural diversity
- World Heritage Sites promote the conservation of natural and cultural sites of outstanding universal value,
- Global Geoparks give international recognition for sites that promote the importance and significance of protecting the Earth's geodiversity through actively engaging with the local communities.

Context

- An ancient circular Lonar Lake in Maharashtra created by a meteorite strike and a hexagonal mosaic of basaltic rocks in St. Mary's Island and Malpe beach in off Udupi coastal Karnataka are poised to become global geoparks, under a Geological Survey of India (GSI) plan.

Details

- Lonar crater became a geo-heritage site in 1979. It is relatively young geologically, at just 50,000 years old.
    - A meteorite estimated to weigh two-million-tonnes slammed into the Earth, creating a 1.83-km diameter crater where the lake formed.
    - It is distinguished by a near-perfect, circular ejecta blanket, which refers to earth thrown up during the collision, around it.
    - it is the only known hyper velocity impact crater in basaltic rock anywhere on Earth
    - This lake, which lies in a basalt impact structure, is both saline and alkaline in nature.
- St. Mary's Island, declared a national geo-heritage site in 1975, and is estimated to be an 88-million-year-old formation that goes back to a time when Greater India broke away from Madagascar.

Kokborok

- It is the native language of the Borok (Tripura) people and neighboring areas of Bangladesh.
- The word Kok stands for "Language" and borok stands for "Human", which is used specifically by the Tripuri people
- Kokborok is closely related to the Bodo, Dimasa and Kachari languages of the neighbouring state of Assam.

Konark Sun Temple

- Konark Sun Temple is a 13th-century sun temple at Konark on the coastline of Odisha

- The name Konark derives from the combination of the Sanskrit words Kona (corner or angle) and Arka (the sun)
- The temple is attributed to king Narasimhadeva I of the Eastern Ganga Dynasty
- Dedicated to the Hindu god Surya, what remains of the temple complex has the appearance of a 100-foot (30 m) high chariot with immense wheels and horses, all carved from stone
- Also called the Surya Devalaya, it is a classic illustration of the Odisha style of Hindu temple architecture
- This temple was called the "Black Pagoda" in European sailor accounts as early as 1676 because its great tower appeared black.
- Similarly, the Jagannath Temple in Puri was called the "White Pagoda". Both temples served as important landmarks for sailors in the Bay of Bengal.
- Declared a UNESCO world heritage site in 1984, it remains a major pilgrimage site for Hindus, who gather here every year for the Chandrabhaga Mela around the month of February

Ram Leela, the traditional performance of the Ramayana

- Ramlila, literally "Rama's play", is a performance of then Ramayana epic in a series of scenes that include song, narration, recital and dialogue.
- It is performed across northern India during the festival of Dussehra, held each year according to the ritual calendar in autumn.
- The most representative Ramlilas are those of Ayodhya, Ramnagar and Benares, Vrindavan, Almora, Sattna and Madhubani.
- This staging of the Ramayana is based on the Ramacharitmanas, one of the most popular storytelling forms in the north of the country.
    - This sacred text devoted to the glory of Rama, the hero of the Ramayana, was composed by Tulsidas in the sixteenth century in a form of Hindi in order to make the Sanskrit epic available to all.

Significance

- The Ramlila brings the whole population together, without distinction of caste, religion or age.

Concern

- The development of mass media is leading to a reduction in the audience of the Ramlila plays, which are therefore losing their principal role of bringing people and communities together.

Ranna's 'Gadhayuddham'

- Gadhayuddham (The Duel of Maces), is a 10th century work by poet Ranna.
- It is also known as Saahasabhima Vijaya.
- Of the five known major works accomplished by him, two are available in full and one in part. They are: Ajitha purana, Parashuramacharithe(extinct), Saahasabhima Vijaya , Ranna Kanda and Chakresvaracharite (extinct)
- Based on a single episode in the Shalya Parya the ninth book of the Mahabharata, Gadhayuddham depicts the battle the cousins Bhima and Duryodhana
- Some scholars believe that Gadayuddhamay have been conceived as a play before being completed as a champukavya.

Sabratha- 'Jewel of Roman Empire' faces danger

- It is in the Zawiya District of Libya
- It lies on the Mediterranean coast
- The archaeological site was inscribed as a UNESCO World Heritage Site in 1982.
- It is known for it's the pink columns of its amphitheater towering above turquoise waters.
- Sabratha is one of three former cities that constituted Roman Tripolitania.

Concerns

- The world heritage site is classified as "endangered" by UNESCO its majestic structures pockmarked by mortar and small arms fire.
- The UN's cultural organization based its decision on two factors — "damage already caused" and vulnerability to future destruction. It noted that "armed groups are present on these sites or in their immediate proximity".
- Since the toppling and killing of Libya's dictator Moamer Kadhafi in a 2011 uprising, Sabratha has become a key departure point for illegal migration.
- Looting is another threat to these sites, as the lack of security has led to illicit excavation and smuggling of antiquities.

Statue of Unity

Context

- As a tribute to freedom movement icon Sardar Vallabhbhai Patel on his 143rd birth anniversary, Prime Minister Narendra Modi will unveil the 'Statue of Unity', which at 182 metres is the tallest statue in the world.
- The Sardar Vallabhbhai Patel statue, twice as tall as the Statue of Liberty, is located 3.2 km downstream of the Narmada dam in Gujarat on the Sadhu Bet Island.

Statues around the world

Details

- The statue has been designed by Padma Bhushan-winning sculptor Ram V Sutar and has been built by Larsen and Toubro and the state-run Sardar Sarovar Narmada Nigam Ltd
- The statue will have a viewing gallery at the height of 193 metres from the sea level which can accommodate 200 visitors at a time. This gallery, at 153 metres height, will offer a view of the Sardar Sarovar Dam, its reservoir, and the Satpura and Vindhya mountain ranges

- The statue will have a museum on the life of Sardar Patel at the base, and two high speed lifts will take people to the viewers' gallery, from where they can see beyond the Narmada Dam.
- The museum will have 40,000 documents, 2,000 photographs and a research centre dedicated to Sardar Patel's life.

Sri Digambar Jain Lal Mandir

- It is the oldest and best-known Jain temple in Delhi
- The temple was constructed during the reign of the Mughal emperor Shah Jahan.

Naya Mandir

- Raja Harsukh Rai, imperial treasurer in the late Mughal period, constructed a large and ornate Jain temple in the Dharampura locality of Old Delhi in 1807
- He was able to obtain the royal permission to construct a shikhara for the temple for the first time during the Mughal rule.
- Thus temple is known as the Naya Mandir (new temple), since an older Jain temple, now known as the Lal Mandir already existed.

Bhonyra

- It is an underground chamber with Jain images.
- In the past, it was used to conceal sacred idols during times of disturbance

Thanjavur Paintings

- It is a style of art practiced in South India inaugurated from the town of Thanjavur
- Gold leaves, semi-precious stones and mirrors are used to give it the grand look.
- All the paintings are done with traditionally made gold foils.
    - the glitter makes the painting more attractive,
    - it also prolongs the life of the artefact
- Colors used for painting are fungus resistant. The painting lasts for generations.

This genre of art which is essentially religious broadly comprises two essential themes:

- The first being scenes from the epics and the puranas as depicted on the walls and pillars of temples
- The first being scenes from the epics and the puranas as depicted on the walls and pillars of temples
    - Portraits of kings, who were the patrons of these artists, as well as priests and ordinary individuals, also find a place in these paintings.

Making of a painting

- The surface on which they were painted consisting of numerous layers of paper or wasli, stuck on a wooden base,
    - with one or two sheets of cloth pasted over the wasli and
    - primed with a mixture of white lead, gum Arabic, copper-sulphate and kanji (rice gruel) are highlighted.
- The background colours traditionally used were rich tones such as deep green, deep blue or red, and also combinations of red and green or red and blue, with artists using colours of both vegetal and mineral origin: red ochre, yellow ochre, chrome yellow and indigo.

'World Peace Monument' dome

Context

- Vice-President M. Venkaiah Naidu inaugurated the world's largest dome at the Maharashtra Institute of Technology (MIT)'s World Peace University (MIT-WPU) campus at Loni Kalbhor on the 150th birth anniversary of Mahatma Gandhi.

Details

- At 160 ft. in diameter and 263 ft tall, it is larger in area than the dome at St. Peter's Basilica in Vatican City (which is 136 ft. in diameter and 448 ft. in height).
- The dome is built atop the MIT World Peace Library and the World Peace Prayer Hall, which are named after the 13th century poet-saint and philosopher Dnyaneshwar — a pivotal figure of the Bhakti movement in Maharashtra.
- Each of the 24 massive columns in the dome stands 63 feet tall.
- The prayer hall can accommodate 3,500 people and is embellished with portraits of more than 50 accomplished men globally.

Dnyaneshwar

- Dnyaneshwar, also known as Dnyandev or Mauli (1275–1296) was a 13th-century Marathi saint, poet, philosopher and yogi of the Nath tradition whose Dnyaneshwari (a commentary on the Bhagavad Gita) and Amrutanubhav are considered to be milestones in Marathi literature.
- Dnyaneshwar takes up the examination of being or Brahman.
- Dnyaneshwar believes that reality is self–evident and does not require any proof.
- He considers humility; non–injury in action, thought and words; forbearance in the face of adversity; dispassion towards sensory pleasures; purity of heart and mind; love of solitude and devotion towards one's Guru and God as virtues; and their corresponding moral opposites as vices.
- Devotion to Guru occupies an important place.
- Dnyaneshwar is in agreement with tradition; he believes that divine order and moral order are one and the same and are inherent in the universe itself.

Monuments in North Karnataka proposed as World Heritage Sites

Context:

The cluster of monuments and forts of the Deccan Sultanate, spread across Bidar, Vijayapura and Kalaburagi districts in the State, have been nominated by the Union government for inscription as UNESCO World Heritage Sites.

Details:

- The dossier was prepared by the Indian Heritage Cities Network (IHCN). It was approved by the Archaeological Society of India (ASI) and the proposal was submitted to UNESCO by the Centre.
- These are the only cluster of monuments recommended by India this year.
- The proposed group of monuments —

1. The Bahmani monuments at Kalaburagi
2. The Bahmani and the Barid Shahi monuments in Bidar
3. Vijayapura's Adil Shahi monuments are already in UNESCO's 'Tentative List' under 'Monuments and Forts of the Deccan Sultanate' along with the Qutb Shahi monuments of Telangana.

Procedure for selection:

- Once proposed, a team of UNESCO experts will pay a site visit for evaluation and to assess if the sites meet the criteria of being culturally significant.
- There are 10 criteria by the UNESCO as per which the proposed monuments should an outstanding example of any architectural style, or be a testimony to a tradition etc.
- Even fulfilling one of the 10 criteria is sufficient to qualify for inscription as a world heritage site.
- To be declared as a World Heritage Site, the monuments should be in the 'Tentative List'.
- The proposed monuments are in this list since 2014, along with two other group of monuments from Karnataka: the temples of Belur and Halebid, described as sacred ensembles of Hoysalas, and the group of monuments of Srirangapatna.

Benefits of being included in the list of World Heritage Sites:

- If included among the World Heritage Sites, it will help in better maintenance of the monuments.
- It will result in mapping of the area, receiving of funds and it will bring them on the global tourism map.
- At present, Hampi and the Pattadakal group of monuments in Karnataka are inscribed as World Heritage cultural sites.

11. GOVERNANCE

CBI Corruption case

Context

- Central Bureau of Investigation (CBI) officer Rakesh Asthana has been charged with extortion and forgery in addition to the bribery and corruption charges.

Background

Sterling Biotech Scam

- Sterling Biotech, a Gujarat company, is being investigated by both the CBI and the Enforcement Directorate, for a 5,000-crore scam allegedly cheating banks and money-laundering the loans their company was given.
- It is alleged that they set up more than 300 shell and benami companies in India and abroad which were used to divert loans.
- It involved manipulating balance sheets, inflating turnover and insider shares trading.
- So they further inflate turnover to obtain further loans from banks.

How is CBI Involved?

- The CBI contends that Mr Asthana was bribed by the company, to ward off money-laundering charges.

Moin Qureshi

- He is India's biggest meat exporter. Over the years he diversified his business and established some 25 companies which included construction and fashion.
- Qureshi is alleged to be one of India's biggest evaders of Income Tax.

Sana Satish Babu

- Sana Satish Babu is a Hyderabad-based businessman on whose statement an FIR has been reportedly booked against CBI Additional director Rakesh Asthana
- Sana Satish Babu tried to mediate on behalf of accused Moin Qureshi who is facing CBI and ED cases.
- So, the CBI named Mr Asthana in a case of corruption, accusing him of accepting a bribe
- Mr Asthana, forcefully denying the charges, alleges that it is his boss and CBI chief Alok Verma who is guilty of bribe-taking.
    - Verma had called him up and asked him not to question Satish Babu Sana, a key witness in the Moin Qureshi case.

Concerns

- Due to all these allegations of corruption, the idea of CBI as an organization fighting corruption will be questionable and this shows the agency in a very poor light.
- The existing procedure for the appointment of CBI Directors, which is made by a committee comprising the Prime Minister, the Chief Justice of India and the Leader of the Opposition, has not stripped the office of controversy.

    - Previously the Supreme Court had held that Ranjit Sinha, when heading the agency, sought to help the accused in several cases and interfered in ongoing probes were 'prima facie credible'. So he was asked to keep away from the 2G telecom cases.
    - Similarly, A.P. Singh, another director, was booked in 2017 for alleged links with meat exporter Moin Qureshi.
- It is called the 'caged parrot' or a handmaiden of the ruling party at the Centre, targeting those in Opposition parties does not augur well for its credibility.
- All appointments in the CBI above the rank of Superintendent of Police are approved by a five-member committee chaired by the CVC and including two vigilance commissioners and secretaries of the Home Ministry and the Department of Personnel and Training.
    - on the basis of seniority, integrity and experience in the investigation of anti-corruption cases chosen from amongst officers belonging to the Indian Police Service constituted under the All-India Services Act, 1951
    - The CBI chief is an invitee to the committee and has to be consulted.
    - The Committee recommended promotion of Mr. Asthana, a Gujarat-cadre IPS officer, to the rank of Special Director, despite the CBI chief Mr. Verma's vehement objections.

Appointment and removal of Director

- Under the Lokpal Act, 2013, the CBI director is to be appointed on the recommendation of a committee consisting of the Prime Minister, the Leader of the Opposition in Lok Sabha and the Chief Justice of India or a judge of the Supreme Court nominated by him which is laid down in Section 4A (as amended upon the enactment of The Lokpal and Lokayuktas Act, 2013) of the Delhi Special Police Establishment Act (DSPE), 1946.
- Section 4B of the DSPE Act stipulates tenure of not less than two years for the CBI director.
    - The amendment in the Act which provided fixed tenure to its chief came after the 1998 apex court ruling in Vineet Narain and others vs. Union of India case.
    - The agency is meant to be independent and not be susceptible to political interference
- Section 4 B (2) bars the transfer of the CBI director without the previous consent of the committee that initially recommends the names for the appointment of the director CBI.
- The Centre has now asked Mr. Verma and Mr. Asthana to go on leave and has appointed new acting director, M. Nageswara Rao. This is akin to removal and violates the established principles of removal and transfer, despite his tenure and independence being protected by the law.

Acts of politicization

- The CBI had given clean chit to Jagdish Tytler in the 1984 riots.
- The 2G scam and coal allocation scam made successive CBI chiefs control the fallout.
- the Supreme Court said that CBI has become a caged parrot speaking in its master's voice for it supporting the claims of political Party in power
- CBI has been engaging in nepotism, wrongful prosecution and corruption as alleged in recent cases of AP Singh and Astana who's appointment was questionable

Reforms

- Efforts to reform the CBI have been going on since the famous Vineet Narain judgment of 1997 through which the Supreme Court gave a set of directions to the government to ensure the autonomy of the organization.

- The real problem for the CBI lies in its charter of duties. These are not protected by legislation. Instead, its functions are based merely on a government resolution that draws its powers from the Delhi Special Police Establishment Act. This needs to be relooked
- According to Prakash Singh besides appointing the head of the CBI through a collegium, as recommended by the Lokpal Act, the government must ensure financial autonomy for the outfit.
- The number of officers placed within the CBI on deputation should be reduced. Greater emphasis should be placed on direct recruitment of CBI officers, and service conditions such as promotions should be incentivised for direct recruits.

Conclusion

- So questions before the Government are how to repair the image of a CBI riven by a nasty feud, how to protect its independence, and how to address and resolve the controversy surrounding it.

The Judgement by the Honourable Supreme Court of India

- The Honorable Supreme Court, while entertaining a writ petition from Mr. Verma questioning the legality of the order divesting him of his powers, has asked the CVC for a quick probe within two weeks into allegations against him contained in a letter sent by the Cabinet Secretary on August 24, 2018.
- Former Supreme Court judge A.K. Patnaik is to supervise the CVC probe.
- Responding to the government's reservations about such external supervision of the work of a statutory authority (the CVC), whose primary responsibility is superintendence over the CBI in anti-corruption investigations, the court clarified that it is a one-time exception given the peculiar facts of this case.
- The court has addressed the possibility that the crisis could be compounded if the interim Director makes any far-reaching decisions on his own.
- Thus, the Court has asked him to confine himself to routine tasks to keep the agency's work going.
- A review of Mr. Rao's early decisions transferring key officers is possible: the court has sought the details in a sealed cover.

Essential Services Maintenance Act (ESMA)

- ESMA is an act of Parliament of India which was established to ensure the delivery of certain services, which if obstructed would affect the normal life of the people
- It extends to the whole of India except Jammu and Kashmir.
- This include services like public transport (bus services, Railway, Airports), health services (doctors and hospitals), post and telegraph and related with the defence of the country
- The ESMA is a central law, that is, a law made by the Parliament of India; but the discretion on the execution of it mostly lies with the State governments
- This act prohibits the key employees in these services from striking.

Is it illegal for these employees to go on strike?

- A strike per se is not illegal, but the government is empowered to prohibit it if it feels that the strike is gravely disturbing public life.
- For that, the government has to issue a general or special order to end the strike. Any strike becomes illegal after the passing of this order.

Penal Actions

ESMA gives police the right to arrest, without a warrant, anybody violating the Act's provisions.

- Any person who commences a strike...or otherwise takes part in...any such strike shall be punishable with imprisonment for a term which may extend to six months, or with fine which may extend to two hundred rupees, or with both
- "Any person who instigates...a strike which is illegal under this Act shall be punishable with imprisonment for a term which may extend to one year, or with fine which may extend to one thousand rupees, or with both."

Context

- ESMA imposed to end DTC staff

#Self4Society

- Professionals keen on doing volunteer work in their free time will be provided a platform by the government through an app, #Self4Society, developed by MyGov.
- The app will have incentives, gamification and intra- and inter-company competitions, and social networking
- This platform is going to create a big opportunity for the masses and will lead to a better outcome of the efforts of professionals who have keen interest in volunteering.

Revolving Doors to Regulatory Capture

Introduction

- A 2018 paper by Haris Tabakovic and Thomas G. Wollmann circulated by the National Bureau of Economic Research suggests government officials as benevolent guardians of public interest is not a reality

Details

- The paper argues that there is a "revolving door" between the government and the private sector, through which people who work for the government later move on to jobs in the private sector and vice versa.
- This often leads to a serious conflict between public and private interests.
- Government officials with dreams of landing high-paying jobs in the private sector in the future, for instance, have a very good reason to neglect their official duties.
- A top bureaucrat with the powers to affect how existing regulations are applied may favour certain private companies that promise to offer him high-paying employment in the future.

Risks in regulation

- This risk of regulatory capture makes it quite hard to rely on government regulators to regulate private businesses in a fair manner.
- The paper says public officials granted significantly more patents to the firms that later hire them.
- 'Revolving-door examiners' are also found to be more likely to grant patents to friendly firms when hiring for positions is strong.

Conclusion

- If the paper is taken into consideration it feels that the government regulators are actively working to undermine the public interest.

Rural Development Ministry survey on Villages

Context

- The Rural Development Ministry has done a gap analysis of more than 3.5 lakh villages, in more than 1.6 lakh panchayats under the Mission Antyodaya convergence scheme.

Criteria

- Officials surveyed and scored village level facilities and amenities using parameters related to infrastructure, economic development and livelihood, irrigation facilities, health, nutrition and sanitation, women's empowerment, and financial inclusion.

Details

- At the national level, the data shows progress in some areas and also spotlights discrepancies in respect of targets met under some other government schemes.

Ranking

- Kuligod in Karnataka's Belagavi district is the country's best developed village, but more than a third of the gram panchayats ranked in the top 10 are in Andhra Pradesh
- With multiple panchayats assigned the same score – and thus tied at the same ranking – there are **97** panchayats in the top 10 ranks.
    - Of these, 37 panchayats are in Andhra Pradesh while 24 are in Tamil Nadu.

On top of the charts

A total of 97 gram panchayats appear in the top 10 ranks in the list released by the Ministry of Rural Development. The ranking is based on six indicators*

Best of the best

Rank	Panchayat	District	State	Score
1	Kulagod	Belagavi	Karnataka	94
2	Sri Ramapuram	Chittoor	Andhra Pradesh	92
2	Tellapur	Sangareddy	Telangana	92

Best districts

Andhra Pradesh
- Chittoor (11 villages in top 97)
- Visakhapatnam (10 villages)

Tamil Nadu
- Vellore (4 villages)
- Dindigul (4 villages)

State-wise split

The highest number of villages in the top 10 ranks is in Andhra Pradesh, while Tamil Nadu stands second

*The indicators are infrastructure, health, women empowerment, economic development, basic village parameters and financial inclusion

Significance

- Making this information available at the fingertips for every village in the country allows for greater public accountability.
- It also allows for more evidence-based planning at the panchayat level.

Unfair Trade Practice

- It refers to the use of various deceptive, fraudulent or unethical methods to obtain business.
- Unfair trade practices include misrepresentation, false advertising or representation of a good or service, tied selling, false free prize or gift offers, deceptive pricing and non-compliance with manufacturing standards.

Laws in India

- Unfair trade practice as defined under Sec 2(1)(r) of the Consumer Protection Act, 1986.

    - A trade practice which, for the purpose of promoting the sale, use or supply of any goods or for the provision of any service, adopts any unfair method or unfair or deceptive practice.
- Indian statutes dealing with Unfair Trade Practice are Competition Act 2002 and Consumer Protection Act, l986 (COPRA).

The World Bank (WB) and the Organization for Economic Cooperation and Development (OECD) Model Law, lists the following trade practices to be unfair:

- distribution of false or misleading information that is capable of harming the business interests of another firm;
- distribution of false or misleading information to consumers, including the distribution of information lacking a reasonable basis, related to the price, character, method or place of production, properties, and suitability for use, or quality of goods; false or misleading comparison of goods in the process of advertising;
- fraudulent use of another's trade mark, firm name, or product labelling or packaging;
- Unauthorized receipt, use or dissemination of confidential scientific, technical, production, business or trade information.

Vigilance Awareness Week

Context:

- The Ministry of Health and Family Welfare will observe the Vigilance Awareness Week from 29thOctober to 3rd November, 2018 as per the directions of Central Vigilance Commission (CVC)

Theme:

- The theme of the vigilance awareness this year is "Eradicate Corruption- Make a New India."

Aim:

- The CVC aims to promote integrity, transparency and accountability in public life.

Benefits:

- The observation of Vigilance Awareness Week creates greater awareness among public and encourages all the stakeholders to collectively participate in prevention of and fight against Corruption.
- During the week-long Vigilance Awareness campaign, various activities like seminars, debates and essay competitions will be organized in the Ministry to sensitize and motivate its officers and staff to remain vigilant and transparent in their work in order to eradicate corruption in all spheres of life

Hamstringing the RTI Act (RTI Act)

Background:

- The basic object of the Right to Information Act is to empower the citizens, promote transparency and accountability in the working of the Government, contain corruption, and make our democracy work for the people in real sense.
- It goes without saying that an informed citizen is better equipped to keep necessary vigil on the instruments of governance and make the government more accountable to the governed. The Act is a big step towards making the citizens informed about the activities of the Government.

Editorial Analysis:

The Right to Information (RTI) Act, was operationalized in October 2005. The RTI Act was seen as a powerful tool for citizen empowerment.

The Act also showed an early promise by exposing wrongdoings, such as
a) In the organization of the Commonwealth Games,
b) The allocation of 2G spectrum and
c) Coal blocks.

However, experts believe that it now faces multiple challenges.

- Experts believe that although the Act was path-breaking in many respects, it did not give adequate authority to the Information Commissions to enforce their decisions. It is important to note that apart from awarding compensation to an applicant for any loss suffered, the commissions can direct public authorities to take the steps necessary to comply with the Act, but are helpless if such directions are ignored.
- Although, it must be acknowledged that if an officer fails to fulfil his duty, the commission can either impose a maximum penalty of ₹25,000 or recommend disciplinary action against him. However, this deterrent works only when the piece of information lies at the lower levels.
- This deterrent is ineffective in many cases where information relates to higher levels of government. As a consequence, implementation of decisions taken by the commissions remains a weak link.

A Look at the Recent Proposed Amendments:

- Experts believe that the Right to Information (Amendment) Bill 2018 attempts to dilute the independence of Central and State Information Commissioners besides giving undue powers to the Government of the day to appoint Commissioners with uncertain term, status and salary. They further assert that the Bill intends to defeat very purpose of RTI Act 2005 besides being an affront to federalism enshrined as basic feature of Indian Constitution.
- The government proposes to do away with the equivalence of the Central Information Commissioners with the Election Commissioners. The basis for doing so that has been sighted is that that the two have different mandates.
- The government proposes to replace the existing fixed five-year tenure of the Information Commissioners with a tenure as may be prescribed by it. Experts believe that this would make the tenure subject to political interference. This would be detrimental to the independence and authority of the Information Commissions.
- Experts believe that the RTI Act struck a balance between privacy and transparency by barring the disclosure of personal information if it has no relationship to any public activity or would cause unwarranted invasion of privacy.
- However, in this regard, we must take note of the the Justice Srikrishna Committee recommendations as well. The Justice Srikrishna Committee has proposed an amendment that would broaden the definition of 'harm'. Experts believe that this broadened definition of 'harm' would restrict disclosure of personal information even where it may be clearly linked to some public activity.
- It is important to also note that the Central and State Information Commissions have been functioning with less than their prescribed maximum strength of eleven. This is primarily due to an undue delay on

appointing commissioners. For instance, the Central Information Commission (CIC), currently having seven members, will have only three by the end of the year if no appointments are made.

- This leads to delay in disposal of cases, which is compounded by the backlog in the High Courts, where a number of decisions of the commission are challenged. This happens invariably in high-profile cases. For example, the CIC's decision in 2007 to cover Indraprastha Gas Ltd. under the Act was stayed by the Delhi High Court, and the stay continues to operate.

Reason for Clogging of the System:

- It is important to note that the clogging of the RTI system is also because a number of applicants, usually disgruntled employees of public institutions, ask frivolous queries. Further, their applications have unfortunately continued to exist alongside those of numerous RTI activists who have done commendable work, who often risk their life and limb.
- Moreover, Section 4 of the RTI Act requires suo motu disclosure of a lot of information by each public authority. However, such disclosures have remained less than satisfactory. Thus, the CIC has had to repeatedly direct regulators of the banking sector to disclose information on the wrongdoings of banks. This was done so as to enable the public to make informed choices about their dealings with various banks.
- In one specific case, the CIC had to direct the disclosure of the list of private persons who travelled with the Prime Minister, at government expense, during his foreign visits. Experts believe that such information should have been disclosed suo motu by the government.

A Few Specifics:

Recently, Information Commissioner Prof. Mr. Sridhar Acharyulu wrote to senior-most Commissioner Yashovardhan Azad, highlighting several deficiencies in the Bill. The letter was marked to all his fellow Commissioners, and also proposes that all of them come together to seek withdrawal of the Bill.

Here are a few excerpts and assertions from his letter:

- Sub-section (5) of section 13 of the RTI Act provided that the salaries and allowance and other terms and conditions of service of the Chief Information Commissioner (CIC) and Information Commissioners shall be same as that of the Chief Election Commissioner (CEC) and Elections Commissioners, respectively.
- Similarly, sub-section (5) of Section 16 of the Act provides that the salaries and allowances and other terms and conditions of service of the State Chief Information Commissioner (SCIC) and State Information Commissioners (SIC) shall be the same as that of the EC and the Chief Secretary to the State Government, respectively.
- The salaries and allowances and other terms and conditions of service of the CEC and EC are equal to a Judge of the Supreme Court, therefore, the CIC, IC and SCIC, SICs become equivalent to a judge of the Supreme Court in terms of their salaries and and allowances and other term and condition of service.
- The Bill not only proposes to weaken the transparency regulator but enables the central government to encroach upon the sovereignty of the State Governments. While the RTI Act of 2005 insulated Information Commissioners from political vagaries, the Bill of 2018 makes them subject to it. The Central Government will prescribe the term and salary of the Commissioners by issuing notifications from time to time. This means that the Government need not go to Parliament to amend RTI Act, but it can simply issue a notification either to reduce or increase the term of a particular batch of Commissioners and their salary.

Observations made by Minister for PMO, Jitender Singh:

Over and above this, it is also important to point out the following observation made by the Minister for PMO, Jitender Singh.
His observation is as below:

"The functions being carried out by the Election Commission of India and Central and State Information Commissions are totally different. The Election Commission is a constitution body established by clause (1) of article 324 of the Constitution and is responsible for the superintendence, direction and control of the preparation of the electoral rolls for, and the conduct of, all election to Parliament and to the Legislature of every State and of election to the office of President and Vice President held under the Constitution. On the other hand, the Central Information Commission and State Information Commissions are statutory bodies established under the provision of the Right to Information Act, 2005. Therefore, the mandate of Election Commission of India and Central and State Information Commissions are different. Hence their status and service conditions need o be rationalized accordingly".

Concluding Remarks:

- In conclusion, the RTI Act continues to render tremendous service in providing information to citizens. Although its aim is not to create a grievance redressal mechanism, the notices from Information Commissions often spur the public authorities to redress grievances.
- Finally, thirteen years of the Act's functioning have given us enough experience to hold a public debate on making it more effective.

Prison Reforms

- In an attempt to revamp the century old norms, the SC has appointed a committee on prison reforms Headed by former Supreme Court judge, Justice Amitava Roy
- Overcrowding, prolonged detention of undertrials, unsatisfactory living conditions, staff shortage and poor training, corruption and extortion, inadequate social reintegration programmes, poor spending on healthcare and welfare, lack of legal aid and even inhuman approach of prison staff among others.
- It will look into the entire gamut of reforms to the prison system.

Previous instances of Committees

- The contemporary prison administration in India is a legacy of the British Rule.
    - Lord Macaulay, while presenting a note to the Legislative Council in India on December 21, 1835, for the first time, pointed out the terrible inhumane conditions prevalent in Indian prisons and he termed it as a shocking to humanity. He recommended that a committee be appointed to suggest measures to improve discipline in prisons.
    - Consequently, on 2nd January, 1836, a Prison Discipline Committee was constituted by Lord William Bentinck for this purpose.
- Sir John Lawrence, a renowned jurist, again examined the conditions of Indian prisons in 1864. Consequently, Second Commission of Enquiry to look into prison management and discipline was appointed by Lord Dalhousie.
- It is important to note that in an effort to examine the conditions of prisons and prisoners in the country, the government had constituted several panels. The courts are have also passed several landmark judgments towards this including the historic judgement in Hussainara Khatoon vs State of Bihar case.
- This is not the first time that such a body is being set up, examples being the Justice A.N. Mulla committee and the Justice Krishna Iyer committee on women prisoners (both in the 1980s).

- A total of 658 recommendations made by this committee on various issues on prison management were circulated to all States and UTs for its implementation, because the responsibility of managing the prisons is that of the State Governments as 'Prisons' is a 'State' subject under the List II—State List of the Seventh Schedule (Entry 4) of the Constitution of India.
- Thus, States have the primary role, responsibility and power to change the current prison laws, rules and regulations.

Stats on number of Prisoners

- In India, the publication, Prison Statistics India, brought out by the National Crime Records Bureau says, In 2015, there were nearly 4.2 lakh inmates in 1,401 facilities, with an average occupancy rate of 114% in most.
  - About 67% of total inmates were under trials, a commentary on the speed and efficiency of India's criminal justice system.
- In the U.S., for example, which has a humongous crime problem, complicated by gun violence and a strident racist overtone in combating crime, the prison system is creaking under the stress of numbers.
  - At any time, it is estimated, there are more than two million prisoners in state and federal prisons.
- In the U.K., the latest available data (July 2018) show a current prison population of approximately 92,500.

Areas that needs introspection

- Incarceration (the state of being confined in prison; imprisonment) in any form is uncivilized because the objective of criminal punishment should be one of reform rather than wreaking vengeance on a perpetrator of crime
- The Hammurabi Code, it is argued, is no longer acceptable.
  - Law of retribution, a form of retaliatory justice commonly associated with the saying "an eye for an eye."
  - Under this system, if a man broke the bone of one his equals, his own bone would be broken in return.
  - Capital crimes, meanwhile, were often met with their own unique and grisly death penalties.
  - The Code included many bizarre and gruesome forms of punishment.
- There is growing numbers of prisoners.
  - This increase is not having any commensurate increase in budget allocation to prison reforms. The Govt's feel it's a fiscal stress as one is diverting money towards negative exercise with less benefits
  - This is why jail officials are often asked to 'somehow manage' with existing modest facilities.
- Another complaint against prisons is the brutality and venality of prison officials.
  - Justice Roy Committee will have to find an answer to this tumultuous question

Solutions

- There is a popular view that in order to reduce prison populations, proven non-violent offenders could be dealt with differently.
  - But it is frustrating that no consensus has evolved across the world on this relatively uncomplicated issue.
- White-collar crime (or corporate crime) refers to financially motivated, nonviolent crime committed by business and government professionals.

    - This has assumed monstrous proportions.
    - The solutions are to merely deprive them of their illegal gains rather than locking them up in jails.
    - Devising swift processes of attachment of properties and freezing of bank accounts are alternatives to a jail term.
- The emphasis on correctional aspect needs to be strengthened through counselling programmes by experts

Some of the prominent recommendations of the Mulla committee are:

- Improving prison condition by making available proper food, clothing, and sanitation;
- The prison staff to be properly trained and organized into different cadres.
- Setting up an All India Service called the Indian Prisons & Correctional Service.
    - After-care, rehabilitation and probation to be an integral part of prison service.
- The press and public to be allowed inside prisons and allied correctional institutions periodically, so that the public may have first-hand information about the conditions of prisons and be willing to co-operate in rehabilitation work.
- Under trials in jails to be reduced to bare minimum and they be kept away from convicts.
    - Under trials constitute a sizable portion of prison population. Their number to be reduced by speedy trial and liberalization of bail provisions.
- The Government may make an effort to provide adequate financial resources.

Krishna Iyer Committee

- It has recommended induction of more women in the police force in view of their special role in tackling women and child offenders

Conclusion

- The management of prisons must be marked by discipline and due regard to the human rights of prisoners.
- Prison reform is not just about prison buildings, but what goes on inside them that needs to be changed. The focus must be on the human rights of prisoners besides improving their amenities.
- Political Will and administrative support becomes imperative to satisfy basic human needs

'In urban U.P., 87% of waste from toilets goes to rivers, agri land'

Context

- According to a new analysis of 30 cities by the Centre for Science and Environment, urban Uttar Pradesh has an 80% coverage of toilets, inefficient sanitation systems ensure that almost 87% of the excreta bring generated by these toilets is being dumped in waterbodies or agricultural lands.

Details

- Without a sewerage system, the effluent from the septic tank, along with greywater from the kitchen and bathroom flows out into storm water drains and open drains or nullahs.
- The faecal sludge, on the other hand, has to be periodically emptied from the septic tank, either manually or mechanically using vacuum trucks or tankers.
    - CSE's analysis found that half of all emptying work in these cities is done manually, despite the legal prohibition of the employment of manual scavengers.

- As there is no designated site for disposal, the emptied faecal sludge ends up in open drains/nullahs/open fields, which eventually lead to polluting the Ganga and other rivers and surface water bodies
- The report, argues that building more toilets will only worsen the environmental, sanitation and manual scavenging situation, unless sewerage connections increase from the current 28% of households in the 30 cities studied.

Untreated sludge

A very high percentage of faecal sludge is disposed of without treatment in various cities in Uttar Pradesh, an analysis by Centre for Science and Environment shows. Graphs plot the amount of faecal sludge generated and the percentage treated in 30 U.P. cities

12. DISASTER MANAGEMENT

C-FLOWS (Chennai FLOod Warning System)

Introduction

- After the unprecedented and sudden floods that paralysed Chennai in 2015 at the behest of the office of the Principal Scientific Advisor to government of India, research institutions, chief among them the National Centre for Coastal Research (NCCR), Chennai, and IITs, got together to build a flood warning system customised for use in Chennai.

Details

- The six-module ensemble can predict flooding due to heavy rainfall, sea-level rise and increase in water levels of the three rivers — Cooum, Adyar and Kosasthalaiyar
- Knowing the elevation at different spots, the system can predict the way the area would flood based on different scenarios that have been simulated
- Inputs were taken from the India Meteorological Department (IMD) on forecast and National Centre for Medium Range Weather Forecasting (NCMRWF), which gives the prediction for rain 10 days in advance.
- Similarly, INCOIS gives the hydrodynamic congestion such as storm surge and tide etc. Using this, the system can, two weeks ahead of the event, simulate the scenario.
- The system can predict what would happen at the level of individual wards

Components

- The spatial database of the city which contains all administrative layers, details of ward boundaries, infrastructure, details of elevations and surfaces, soil, land use, geomorphology and census datasets are contained in the first module.
- There are many precomputed scenarios of flooding based on the forecast rainfall and tidal conditions, in a library. From this the most appropriate one may be selected for superimposing on the geomorphology. The second module has to do with this precisely.
    - Simultaneously, models can also be run in real time based on actual datasets. Over this can be overlaid details of storm water drains and drainage fractions to enable pre-flood planning operations.
- The 3D visualisation module makes possible a realistic visualisation of the flooding in various places such as infrastructure, buildings, roads, ward boundaries etc, by superimposing the model outputs on the layers of data.
- Data from IMD, NCMRWF, INCOIS and Tamil Nadu State government are brought together in an online hub along with the field data and the remote sensing data to observe the situation in real time. This is the fourth module.
- Authorised personnel can use a mobile app, which has been developed alongside, to collect data from flooded areas such as geotagged photographs and add to the database. This fifth module helps capture the ground reality and provide primary information for decision makers to plan relief and mitigation operations.

- The last aspect is a decision support system: this is an online GIS query portal which can answer questions on quantum of flooding in specific localities, flood proximity, for example, it can say which roads are inundated and suggest routes for planning relief operations and so on.

Early Warning Dissemination System (EWDS)

- EWDS is a project that aims at establishing a fool-proof communication system to disseminate disaster warning up to the community level by simultaneously warning coastal communities and fisher folk about impending cyclone and tsunami through siren towers.
- Sirens will go off from 122 towers installed along the 480-km-long coast of the State if a button is pressed in the State emergency centre in Bhubaneswar.
- Fishermen fishing in deep sea can also be reached via mass SMS on their mobile phones through EWDS
- It comprises technologies such as satellite-based mobile data voice terminals, digital mobile radio, mass messaging system and universal communication interface for interoperability
- It's a part of the last-mile connectivity programme under National Cyclone Risk
- The EWDS, a collaborative effort of the Central and State governments, has been implemented under the assistance of World Bank.

Forest Fire Management

Context

- The release of a report titled "Strengthening Forest Fire Management in India" by Minister of Environment.
- The report has been prepared jointly by the Ministry of Environment, Forest and Climate Change and World Bank.

Recommendations

- Develop a National Forest Fire Prevention Management Plan (FFPM) as an open, consultative and a time-bound process,
- Institute standard management practices,
- Adapt technology to local conditions, as well as scale up the best practices
- Increase engagement with local communities to ensure that big fire is used in a responsible way and at the same time, give communities a greater say in decision-making process.
- The National FFPM Action Plan should delineate the roles and responsibilities of the MoEFCC, state forest departments, communities and disaster agencies.
- Lastly, there is a need to support forest fire management through improved data, and research to fill critical knowledge gaps.
    - A national forest fire information database, bringing together satellite-based remote sensing data, and field-reported data, will be instrumental for assessing longer-term trends across states and regions and for planning fire prevention and response.
    - In addition, defining a national research agenda for fire management and provision of funding opportunities for scientific research would help to establish formal cooperation between members of the research community and the forest department.

Economic Losses, Poverty and Disasters 1998-2017

Context

- India suffered a whopping USD 79.5 billion economic loss due to climate-related disasters in the last 20 years, according to a UN report which highlights the impact of extreme weather events on the global economy.
- It was compiled by the UN Office for Disaster Risk Reduction.

Details

- Storms, droughts, floods, earthquake, extreme temperature and Tsunami were the disaster type responsible for the majority of losses.
- Floods (43.4%) and storms (28.2%) are the two most frequently occurring disasters.
- 563 earthquakes, including related tsunamis, accounted for 56% of the total deaths or 747,234 lives lost, the report said.
- The report was released ahead of the International Day for Disaster Reduction on October 13.

World over

- The US topped the list with $945 billion of disaster-related economic losses during the period, followed by China ($492 billion), Japan ($376 billion) and India ($79.5 billion).
- High-income countries posted losses from 53% of disasters between 1998 and 2017, low-income countries only reported them from 13% of disasters.

Significance

- Measuring economic losses can also motivate governments to do more to achieve the targets of the Sendai Framework for Disaster Risk Reduction, which seeks a substantial reduction in disaster losses by 2030
- Reducing the economic losses from disasters has the power to transform lives and contribute greatly to the eradication of poverty.

Conclusion

- Integrating disaster risk reduction into investment decisions is the most cost-effective way to reduce these risks; investing in disaster risk reduction is therefore a pre-condition for developing sustainable in a changing climate

Operation Samudra Maitri

- It is the relief effort launched by India to assist the victims of the 2018 Sulawesi earthquake and tsunami in Indonesia
- Two IAF Aircrafts, C-130J and C-17, departed carrying onboard medical personnel and relief material.
- The C-130J aircraft is carrying a medical team onboard along with tents and equipments to set up a field hospital.
- The C-17 aircraft is carrying medicines, generators, tents and water to provide immediate assistance.
- Three Indian Naval Ships – INS Tir, INS Sujatha and INS Shardul – have also been mobilized to carry out humanitarian assistance and disaster relief (HADR).

SC junks Kerala order on Salary Challenge

Context

- The Supreme Court dismissed a petition filed by the Kerala government challenging a High Court decision staying a government order that employees should donate a month's salary to the Chief Minister's Distress Relief Fund (CMDRF).

Background

- The employees who are reluctant to donate their salary to the distress fund, should give their dissent in writing.
- Those who cannot give a month's salary in a single sweep can contribute in 10 instalments.
- The government aims to raise Rs 3,800 crore if the 5 lakh state employees and teachers donate a month's salary.

SC comments

- Donations require a voluntary spirit and the government should keep in mind the fact that many employees may not be able to afford such an extent of monetary loss.
- People should be asked to give only what they can afford to give.

13. GEOGRAPHY

Daya River

- The Daya River starts as a branch of the Kuakhai River (It is a distributary of Mahanadi River) at Saradeipur (near Badahati) in Odisha
- The historically important Dhauli hills are located on the banks of the Daya River.
    - It has major Edicts of Ashoka engraved on a mass of rock
- Kalinga War which led to the destruction of the Kalinga kingdom was fought here.
    - The Daya River is said to have turned red with the blood of the many deceased after the battle, and enabled Ashoka to realize the magnitude of horror associated with war.
- It is joined by the Malaguni River below Golabai and flows through Khordha and Puri districts before emptying into the north-eastern corner of Chilika Lake

Ganymede

Context

- Ganymede, the largest moon in the solar system, appears to have undergone periods of intense geological activity

Details

- Ganymede is Jupiter's and the solar system's largest moon. Like Europa, it is believed to be an ocean world.
    - Europa is the smallest of the four Galilean moons orbiting Jupiter
    - The Galilean moons are the four largest moons of Jupiter—Io, Europa, Ganymede, and Callisto.
- Europa is widely considered the most likely place in the solar system to hold life outside of Earth, but Ganymede is also an interesting candidate.
    - The liquid water would provide the necessary environment for life to develop, while the ice shell would protect the water from radiation
- Plates can move towards each other convergently (as seen in most high mountain ranges such as the Himalayas), away from each other divergently (as seen on rifts, such as the East African Rift), or simply slide by each other in a motion called "strike-slip".
    - The most famous example of strike-slip movement is the San Andreas fault in California.
    - Now, astronomers have found signs of this type of movement on another celestial body: Ganymede.

Hong Kong–Zhuhai–Macau Bridge

- It is world's longest sea bridge, 55km (34 miles) connecting Hong Kong and Macau to the mainland Chinese city of Zhuhai
    - It spans the waters of the Pearl River Estuary and will cut the travel time between Hong Kong and Zhuhai from three hours to 30 minutes

- It will be at the heart of an integrated Greater Bay Area (GBA) covering 11 major neighbouring cities, which include Hong Kong, Macao, Guangzhou and Shenzhen. The giant GBA comprising 68 million people is expected to rival the San Francisco Bay Area of the U.S., as well as the Tokyo Bay Area of Japan.
- The bridge, designed to withstand earthquakes and typhoons, was built using 400,000 tonnes of steel, enough to build 60 Eiffel Towers.
- A 6.7 km underground sea tunnel to allow uninterrupted flow of shipping above, along the super-busy Pearl River Delta, is also part of the bridge's design that runs between two artificial islands
- Those who want to cross the bridge must obtain special permits, allocated by a quota system. And all vehicles will pay a toll
- The bridge is seen as a tool to drag the city -- which boasts a semi-democratic legislature and independent judiciary and has seen numerous mass protests in recent years -- closer into Beijing's grip.

Criticism

- The bridge project has come in for fierce criticism in Hong Kong, where there was little public demand or appetite for greater links to either Macau or Zhuhai, and fears the city will be swamped by tourists from mainland China.
- Construction has been dogged by safety issues - at least 18 workers have died on the project.
- Environmental groups say the project may have caused serious harm to marine life in the area, including the critically rare Chinese white dolphin.

Migingo Island

- Migingo is a 2,000-square-metre island, in Lake Victoria
    - Migingo Island is crowded with fishermen.s
    - The surrounding waters are full of Nile perch, a valuable export.
- Migingo has been a source of tension between Uganda and Kenya, who have been unable to decide to whom it really belongs.

Background

- It was in the early 2000s when the island was barely inhabited — then situated within Kenya on all maps — that it began drawing the attention of Ugandan authorities who sent officials to Migingo to tax fishermen and offer protection against pirates.
- Kenyan fishermen in return began complaining they were being shaken down by the Ugandans in their own waters and chased from the island.
- They called on Kenya's government, which deployed security forces to Migingo in a move that nearly brought the two nations to blows in 2009.

Conflict resolution

- Kenya and Uganda then decided to create a joint commission to determine where the watery border is, relying on maps dating from the 1920s whose interpretation is a key point of contention.
- But nothing has come of the commission, and in the absence of any decisions on the boundary, the island is co-managed by both countries.

Turbidity Currents

- Turbidity currents can be set into motion when mud and sand on the continental shelf are loosened by earthquakes, collapsing slopes, and other geological disturbances.
- The turbid water then rushes downward like an avalanche, picking up sediment and increasing in speed as it flows.
- Turbidity currents can change the physical shape of the seafloor by eroding large areas and creating underwater canyons.
- These currents also deposit huge amounts of sediment wherever they flow, usually in a gradient or fan pattern, with the largest particles at the bottom and the smallest ones on top.

Concerns

Geologists have known about turbidity currents since at least 1929, when a large earthquake triggered a violent current that travelled several hundred kilometres and damaged 12 trans-Atlantic communications cables

- This discovery could help ocean engineers avoid damage to pipelines, communications cables, and other sea floor structures.
- Turbidity currents are also important to petroleum geologists because they leave behind layers of sediment that comprise some of the world's largest oil reserves.

14. HISTORY

Azad Hind Government -75th Anniversary

Context

- Prime Minister Narendra Modi hoisted the national flag at the Red Fort in New Delhi to commemorate the 75th anniversary of Azad Hind government formed by freedom fighter Netaji Subhas Chandra Bose.

About Azad Hind Government:

- Netaji Subhash Chandra Bose had announced the establishment of the provisional government of Azad Hind in occupied Singapore in 1943.
- Known as Arzi Hukumat-e-Azad Hind, it was supported by the Axis powers of Imperial Japan, Nazi Germany, the Italian Social Republic, and their allies.
- The revered freedom fighter had launched a struggle to free India from British rule under the banner of the provisional government-in exile during the latter part of the Second World War.

Objectives:

- Bose was convinced that armed struggle was the only way to achieve independence for India. He had been a leader of the radical wing of the Indian National Congress in the late 1920s and 1930s, rising to become Congress president in 1938 and 1939 but was ousted following differences with Mahatma Gandhi and the Congress leadership.
- Under his provisional government, the Indians living abroad had been united. The Indian National Army drew ex- prisoners and thousands of civilian volunteers from the Indian expatriate population in Malaya (present-day Malaysia) and Burma (now Myanmar).

The formation:

- On October 21, 1943, in his address announcing the setting up of the provisional government, he said India's Army of Liberation was drawn up in military formation on the battlefield of Singapore which was once the bulwark of the British Empire.
- Under the provisional government, Bose was the head of the state, the prime minister and the minister for war and foreign affairs. Captain Lakshmi headed the women's organisation while S A Ayer headed the publicity and propaganda wing.
- Revolutionary leader Rash Behari Bose was designated as the supreme advisor. The provisional government was also formed in the Japanese-occupied Andaman and Nicobar Islands. The islands were re-occupied by the British in 1945.
- Bose's death was seen as the end to the Azad Hind movement. The Second World War, also ended in 1945 with the defeat of the Axis powers.

Did Jinnah want Pakistan?

Introduction

- In the book by Ayesha Jalal 'The Sole Spokesman (1985)', it is said that Muhammad Ali Jinnah wanted to use Pakistan as a bargaining counter to get a better deal for Indian Muslims and the Muslim League in a united India.

- According to Ms. Jalal, this strategy backfired because Jinnah overplayed his hand.
- In the final phase, she says, "It was Congress that insisted on Partition. It was Jinnah who was against Partition."
- Countering this view Venkat Dhulipala in his book Creating a New Medina (2015) says beginning 1941, Jinnah was willing to sacrifice the minority provinces' three crore Muslims to "liberate" the six crore in the majority provinces.

Gaining support was the major objective of Jinnah who had no foothold in these provinces

- Jinnah was probably not interested in a completely independent Pakistan. He used the religious imagery of the "New Medina" to garner popular support in the Muslim-minority provinces, especially Uttar Pradesh.
- He needed this support desperately because he had no base in the Muslim-majority provinces.
- The North-West Frontier Province had a Congress Ministry and the Muslim leaders in Punjab and Bengal, the two largest Muslim-majority provinces, were averse to Jinnah's interference in their provincial affairs.
- They were more interested in forming coalitions with their Hindu and Sikh colleagues than creating a separate state that would divide their provinces and subject them to Jinnah's diktats.

Weak and Strong Center debate

- For Jinnah, the best option was the creation of a loose federation consisting of two autonomous entities, Hindustan and Pakistan that would have parity with each other at the federal level, with himself the undisputed leader of Pakistan. This is why the Cabinet Mission Plan of 1946, which envisaged groups of provinces on the basis of religious majorities and a weak Centre, appealed to him.
- Jawaharlal Nehru thwarted the plan. The subsequent decision by Nehru and Sardar Patel that Partition was the lesser evil when compared to a weak Centre put paid to Jinnah's ambition of dealing with the Congress leadership based on parity in a loosely federated India.

Conclusion

- Jinnah was driven above all by the pursuit of personal power which he could not achieve in a centralised Indian state.
- Mahatma Gandhi suggested on the eve of Partition that Jinnah be made Prime Minister of a united India with the power to choose his Cabinet. Had the Congress leadership not rejected this proposal, it could have acted as a litmus test to assess Jinnah's real intentions.

International Arya Mahasammelan

- This was inaugurated by President Kovind in remembrance of Swami Dayanand Saraswati
    - He was founder of the Arya Samaj, a Hindu reform movement of the Vedic dharma.
    - He was the first to give the call for Swaraj as "India for Indians" in 1876, a call later taken up by Lokmanya Tilak
    - Denouncing the idolatry and ritualistic worship prevalent in Hinduism at the time, he worked towards reviving Vedic ideologies.
- Mahasammelan with discuss on the issues such as prevention of superstition, modernization, women empowerment, tribal welfare, and management of natural calamities.

The unifier of modern India

A Brief Note on Sardar Patel:

- Sardar Vallabhbhai Patel is a revered name in Indian politics. A lawyer and a political activist, he played a leading role during the Indian Independence Movement. After independence, he was crucial in the integration of over 500 princely states into the Indian Union. He was deeply influenced by Gandhi's ideology and principles, having worked very closely with leader. Despite being the choice of the people, on the request of Mahatma Gandhi, Sardar Patel stepped down from the candidacy of Congress President, which ultimately turned out to be the election to choose the first Prime Minister of independent India. He was the first Home Minister of Independent India and his uncompromising efforts towards consolidation of the country earned him the title 'Iron Man of India'.
- The task of reconstructing India – territorially and emotionally – was immense. Entire nation was going through a period of mayhem. There were forces at play which wanted a divided nation. The big question for leaders like Mahatma Gandhi at the time of partition was whether there will be two nations once British are gone or 565 different nations. At such a time, responsibility of reconstruction of India fell in the able hands of Iron Man – Sardar Vallabhbhai Patel.
- Sardar Patel despite his falling health and age never lost sight of the larger purpose of creating United India. VP Menon who ably assisted Sardar Patel in this enormous task writes in The Story of the integration of the Indian Sates, 'India is one geographical entity. Yet, throughout her long and chequered history, she never achieved political homogeneity……Today, for the first time in the country's history, the writ of a single central Government runs from Kailas to Kanyakumari, from Kathiawar to Kamarupa (the old name of Assam).' Sardar Patel played an instrumental role in creating this India.
- Congress had given its assent to the June 3 plan which was about partitioning India into two territories – India and Pakistan. India was then a mosaic of British occupied territory and 565 princely states. The princely states had to choose between joining either of the two nations or remain independent.
- Few princely states like Travancore, Hyderabad, Junagadh, Bhopal and Kashmir were averse to joining the state of India while others like Gwalior, Bikaner, Baroda, Patiala and others proactively joined India.
- Sardar Patel was aware 'you will not have a united India if you do not have a good all-India Service', therefore before embarking on reorganization of states, he build confidence in the 'Steel Frame' or the Indian civil services. Sardar Patel worked tirelessly to build a consensus with the princely states but did not hesitate in employing methods of Sama, Dama, Dand and Bhed whereever necessary. Sardar Patel along with his aide VP Menon designed 'Standstill Agreements and Instrument of Accession' accommodating requests and demands from various rulers.
- Sardar Patel was also conscious of the fact that mere political reorganization of this land was not enough. He was aware that the wounded civilization of India needed to be stirred to its core and woken up from the past slavery and misery.
- There was an urgent need to rekindle among the people of India the bond they shared with their diverse cultures. On November 13, 1947, Sardar Patel, the then deputy Prime Minister of India, vowed to rebuild Somnath Temple. Somnath had been destroyed and built several times in the past and the story of its resurrection from ruins this time would be symbolic of the story of the resurgence of India. The then President of India, Dr. Rajendra Prasad speaking at the inaugural ceremony at the temple said, "It is my view that the reconstruction of the Somnath Temple will be complete on that day when not only a magnificent edifice will arise on this foundation, but the mansion of India's prosperity will be really that

prosperity of which the ancient temple of Somnath was a symbol." He added, "The Somnath temple signifies that the power of reconstruction is always greater than the power of destruction."

- Sardar Patel played a heroic role in the reconstruction of the Indian civilization, and at a time when Prime Minister Narendra Modi has given a call for 'New India', Patel's words in a letter to Princely rulers are more relevant than ever:
- These words were "We are at a momentous stage in the history of India. By common endeavour, we can raise the country to new greatness, while lack of unity will expose us to unexpected calamities. I hope the Indian States will realise fully that if we do not cooperate and work together in the general interest, anarchy and chaos will overwhelm us all great and small, and lead us to total ruin…….let it be our proud privilege to leave a legacy of mutually beneficial relationship which would raise this sacred land to its proper place amongst the nations of the world and turn it into an abode of peace and prosperity."

Editorial Analysis:

- It is important to note that Sardar Patel's foresight and tactful navigation of the most turbulent period in post-Independence, and the resolve he demonstrated in integrating the more than 500 disparate princely States into the Dominion of India is an unparalleled accomplishment in modern history.
- Even Lord Mountbatten had hailed Patel's feat. Lord Mountbatten, who was the last Viceroy of India, had said: "By far the most important achievement of the present government is the unification of the States into the Dominion of India. Had you failed in this, the results would have been disastrous… Nothing has added to the prestige of the present government more than the brilliant policy you have followed with the States."
- What makes the merger of the princely States truly incredible is the fact that the princely rulers had the option at that time to either accede to India or Pakistan or remain independent.
- Yet, Patel's sagacity, foresight, patriotism, tact, persuasive powers and abiding commitment to fair play enabled him to untangle a highly complex political and social problem of an unprecedented scale, without triggering any kind of revolt or civil unrest.
- However, he was also compelled to use coercion by launching 'Operation Polo' to liberate and integrate Hyderabad after the Nizam of Hyderabad entertained false hopes of either joining Pakistan or remaining independent. In a swift operation lasting five days, Hyderabad State was liberated in September 1948.
- Experts believe that at the most critical time when the country's political unity was in jeopardy, India found the man of the moment in Sardar Patel, who displayed amazing patience, tact and a steely determination in dealing with an intransigent ruler, who refused to see the writing on the wall and even wanted to take the issue to the United Nations.
- Displaying statesmanship of the highest order, Sardar Patel prevented the attempts to not only Balkanise India but internationalise the issue as well.
- The complicated case of Junagarh, Gujarat, was also handled with dexterity by Patel.
- Some experts believe that the problem of Jammu and Kashmir would have been resolved long back had Sardar Patel been given a free hand to handle it at that time.

Builder of India

- Patel himself termed the entire exercise as a "bloodless revolution" when he wanted the Constituent Assembly to consider privy purse settlements for the surrender by the rulers of all their ruling powers and the dissolution of the States as separate units.
- Patel was an ardent follower of Mahatma Gandhi.

- Patel never swerved in his loyalty to his mentor, although there were occasions when he differed with him. Similarly, he did not see eye-to-eye with Jawaharlal Nehru on certain issues, including the handling of Jammu and Kashmir. But he did not allow these differences or personal ego to come in the way of protecting the larger interests of the country — which were at the core of his heart. He worked shoulder-to-shoulder with Nehru in building a modern India.
- Patel was a multifaceted personality. He was a dynamic political leader, an organiser par excellence, a competent administrator and a skilful negotiator.
- After coming under the influence of Mahatma Gandhi, he became his loyal follower and successfully organised peasants against the imposition of taxes by the British at Kheda and Bardoli, Gujarat, and in the process he earned the title of 'Sardar' for his leadership qualities. The manner in which he marshalled the peasants and the unflinching stand taken by him eventually forced the authorities to roll back the taxes.

Concluding Remarks:

- The Iron Man of India was the chief architect of India's steel frame — the civil services.
- Thus, the All India Services were seen as an important cementing force in promoting the unity and integrity of the nation.
- It is in the fitness of things that the National Police Academy located on the outskirts of Hyderabad, Telangana, is named after him, as a tribute to the statesman.
- Another aspect of the Sardar that needs to be highlighted is his graciousness and magnanimity in readily abiding by Mahatma Gandhi's advice to withdraw his candidacy for the post of Congress President in favour of Pandit Nehru in 1946, although a majority of State Congress committees supported his candidature. It was apparent that the Congress President would become the first Prime Minister of India. It once again proved his noble intention of placing the country's interests above self.
- His love for the motherland was best described by Maulana Azad when he said: "He made his choice out of two courses that come before a man, namely would he live for his country or for himself? Sardar chose his country."

15. MISCELLANEOUS

Anna Politkovskaya Award to Binalakshmi Nepram from India

- Reach All Women in War (RAW in WAR)is a human's rights organisation
- The award marks the 12th anniversary of the killing of Politkovskaya, a Russian investigative reporter who uncovered state corruption and rights abuses, especially in Chechnya.
- The Award is for a female human rights defender from a conflict zone who, like Anna, stands up for the victims of this conflict, often at great personal risk.

Details

- Binalakshmi Nepram shared the Reach All Women in WAR (RAW in WAR) Anna Politkovskaya Award with Nobel literature laureate Svetlana Alexievich, an investigative journalist and writer from Belarus.
- They were honored for their for their bravery in speaking out against injustice, violence and extremism
- Ms. Nepram, who once worked for Oxfam, cofounded in 2004 the Control Arms Foundation of India (CAFI), a civil society organisation working on disarmament and opposing militarisation.
- Three years later she launched the Manipur Women Gun Survivors Network, which has helped more than 20,000 women deal with decades of armed conflict
- The group's work has extended beyond helping those who have lost fathers, husbands and sons in the violence to also assist women and girls raped and sexually assaulted in the ongoing conflict
- Binalakshmi continues to campaign publicly for arms and gun control, the victims of the armed conflict in Manipur, and the rights of indigenous women.

Svetlana Alexievich

- Ms. Alexievich, won the 2015 Nobel Prize for Literature for her portrayal of the lives of Soviet women during the Second World War, as well as the impact of the Chernobyl nuclear disaster and the Soviet military adventure in Afghanistan.
- She lived in exile for many years because of her criticism of the Belarusian government but returned home in 2011.

Carnot Prize

Context

- Kleinman Center for Energy Policy at the University of Pennsylvania School of Design is awarding its fourth annual Carnot Prize to Shri Piyush Goyal
- It is an Acknowledgement of India's climate conscious and development driven energy governance that is fuelling the aspirations of 125 crore people

Details

- The Carnot Prize is the Kleinman Center's annual recognition of distinguished contributions to energy policy through scholarship or practice.

- The most prestigious award in the energy sector, Carnot Prize is named after French physicist Nicolas Sadi Carnot who recognised that the power of the steam engine would "produce a great revolution" in human development.
- The Carnot Prize is intended to honour those leading revolutions in energy policy to further progress and prosperity.

Man Booker Prize

- The Man Booker Prize for Fiction is a literary prize awarded each year for the best original novel, written in the English language, and published in the UK.
- The winner of the Man Booker Prize is generally assured of international renown and success; therefore, the prize is of great significance for the book trade.
- The prize was historically limited to authors from the U.K., the Commonwealth, Ireland and Zimbabwe; this is only the second year (2015) that it has been open to anyone writing in the English language and published in the U.K.
- The prize is the world's most important literary award and has the power to transform the fortunes of authors and publishers.
- The recipient of the Man Booker Prize gets 52,500 pounds (USD 69,223 or Rs 50.85 lakh)

Context

- Author Anna Burns has won the Man Booker Prize for her novel 'Milkman', becoming the first author from Northern Ireland to win the most prestigious English-language literary award.

Nobel Peace Prize

Context

- The Nobel Peace Prize for 2018 has been awarded to Congolese gynaecologist Dr. Denis Mukwege and Yazidi human rights activist Nadia Murad for their efforts to end the use of sexual violence as a weapon of war and armed conflict.

Denis Mukwege

- He is the helper who has devoted his life to defending victims of wartime sexual violence.
- He has spent large parts of his adult life helping the victims of sexual violence in the Democratic Republic of Congo

Nadia Murad

- Ms Murad is one of an estimated 3,000 Yazidi girls and women who were victims of rape and other abuses by the Islamic State.
- She has shown uncommon courage in recounting her own sufferings and speaking up on behalf of other victims

Youth road safety learners licence programme

- The programme is a PPP initiative to be run in collaboration with Diageo India and the Institute of Road Traffic Education (IRTE), and attempts to bring a formal and structured training program for young, first-time drivers as they apply for learner's license.
- It is a step toward addressing this grave issue by improving road safety awareness amongst young adults by inculcating behavioural change and creating awareness about responsible driving habits.
- The programme is an immersive and interactive module led by senior faculty members of IRTE covering varied aspects of responsible driving including defensive driving, ill effects of driving under the influence of alcohol, speeding and wearing of helmets

PRACTICE QUESTIONS

1. Which of the following is/are the benefits of compressed biogas?
i. Cleaner and cheaper auto-fuel
ii. Productive use of agricultural residue, cattle dung etc
iii. Enhances farmers' income
iv. Boosts organic farming
v. Tackles the problem of polluted air and carbon emissions
vi. Brings down dependency on crude oil imports
Choose the correct option:
a) i), ii) and iv) only
b) i), ii), iv) and vi) only
c) i), ii), iii), iv) and vi) only
d) All of the above

2. Consider the following statements:
i. The Chief Economic Adviser (CEA) is the economic advisor to the Government of India.
ii. The CEA is the ex-officio cadre controlling authority of the Indian Economic Service.
iii. The CEA is under the direct charge of the Minister of Finance.
Which of the above statement/s is/are correct?
a) i) and ii) only
b) ii) and iii) only
c) i) and iii) only
d) All of the above

3. Consider the following statements:
i. The MMR vaccine is very safe, and it is effective at preventing measles, mumps, and rubella.
ii. Temporary pain and stiffness in the joints and fever can be the side effects because of MMR vaccination.
Which of the above statement/s is/are correct?
a) i) only
b) ii) only
c) Both i) and ii)
d) None of the above

4. Consider the following statements with respect to Mansar lake:
i. It is situated in Jammu.
ii. It is one of the largest freshwater lakes in the Shivalik range.
iii. Surinsar Lake along with Mansar Lake has been designated as one under the Convention of Wetlands of International Importance.
Which of the above statement/s is/are incorrect?
a) i) only
b) ii) only
c) i) and iii) only
d) None of the above

5. Article 338 finds mention of National Commission for Scheduled Castes. Consider the following statements regarding that:
i. President has to appoint the members of the Commission.
ii. The Commission is empowered to regulate its own procedure.
Choose the correct option:
a) i) only

b) ii) only
c) Both i) and ii)
d) None of the above

6. Which of the following statement/s is /are incorrect?
i. Prime Minister, after consultation with Governor of the concerned state, has to notify the Scheduled castes/tribes.
ii. Parliament is empowered to modify the list of Scheduled castes/tribes.
Options:
a) i) only
b) ii) only
c) Both i) and ii)
d) None

7. Consider the following statements with respect to the Indian National Center for Ocean Information Services (INCOIS):
i. It is an autonomous organization.
ii. It is under the Ministry of Earth Sciences.
iii. INCOIS is mandated to provide the best possible ocean information and advisory services to society, industry, government agencies, and the scientific community.
Which of the above statement/s is/are incorrect?
a) i) only
b) ii) only
c) Both i) and ii)
d) None of the above

8. Which of the following statement/s is/are incorrect with respect to the Defence Acquisition Council?
a) Prime Minister is the Chairman of DAC.
b) It gives in-principle approval of 15 Year Long-Term Integrated Perspective Plan for Defence Forces.
c) It is responsible for the issues relating to Single vendor clearance.
d) None of the above

9. Consider the following statements regarding, 'intertidal wetlands',
i. An intertidal wetland is an area along a shoreline that is exposed to air at low tide and submerged at high tide.
ii. This type of wetland is defined by an intertidal zone and includes its own intertidal ecosystems.

Choose the correct option:
a) i) only
b) ii) only
c) Both i) and ii)
d) None of the above

10. Consider the following statements,
i. The Champions of the Earth Awards is the UN's "highest environmental honour."
ii. The International Solar Alliance (ISA) is headquartered in India and has its Secretariat located in the campus of National Institute of Solar Energy, Gwalpahari, Gurgaon, Haryana.
Choose the correct option:
a) i) only
b) ii) only
c) Both i) and ii)
d) None of the above

11. Consider the following statements regarding the, "Green Highways (Plantation, Transplantation, Beautification & Maintenance) Policy, 2015"
i. The aim of the policy is to promote greening of Highway corridors with participation of the community, farmers, private sector, NGOs, and government institutions.=
ii. 1% of the total project cost of all highways projects will be kept aside for the highway plantation and its maintenance.
Choose the correct option:
a) i) only
b) ii) only
c) Both i) and ii)
d) None of the above

12. Consider the following statements regarding "Minimum Support Price (MSP)"?
i. MSP is form of agricultural market intervention undertaken by Central Government in order to insure agricultural producers are protected against any sharp fall in farm prices.
ii. The prices are decided by the Cabinet Committee on Economic Affairs (CCEA) on the basis of recommendations of the Commission for Agricultural Costs and Prices (CACP).
iii. The cost of production is an important factor that goes as an input in determination of MSP, but it is certainly not the only factor that determines MSP.
Choose the correct option:
a) i) and ii) only
b) ii) and iii) only
c) Both i), ii) and iii)
d) None of the above

13. Consider the following statements regarding the "Gir National Park",
i. Besides Africa, Gir National Park in Gujarat is the only place in the world where you can spot lions roaming free in the wild.
ii. The entire forest area of the Gir National Park is dry and deciduous.
iii. The Gir forests, are the only abode of Asiatic lions in the world.
Choose the correct option:
a) i) and ii) only
b) ii) and iii) only
c) Both i), ii) and iii)
d) None of the above

14. Which of the following statement/s is/are correct?
i. Judges of the Supreme court are appointed by the President.
ii. Judges of the Supreme court can be removed on the ground of proven misbehavior only.
iii. Schedule 3 deals with the Oath or affirmation to be subscribed by the judges.
Options:
a) i) and ii) only
b) i) and iii) only
c) i) only
d) All of the above

15. Consider the following:
i. Promotion of International peace and security is covered under DPSPs.
ii. Protection and improvement of the environment is the duty of both, citizens and the state.
iii. Prohibition of consumption of alcohol is a duty of the state, as provided under the DPSPs.
Which of the above statement/s is/are correct?
a) i) only
b) i) and ii) only

c) All of the above
d) None of the above

16. Consider the following:
i. Fundamental duties can be enforced by writs.
ii. These duties extend to foreign nationals staying in India.
Choose the correct option:
a) Only i) is correct
b) Only ii) is correct
c) Both are correct
d) Both are incorrect

17. Which of the following is/are correctly matched?
1. Bandipur – Tiger
2. Kaziranga – One Horned Rhino
3. Gir – Gharial
a) 1 and 2 only
b) 1 and 3 only
c) 2 only
d) None of the Above

18. Which of the following also acts as a mechanism for government lending?
1. CRR
2. Repo rate
3. Reverse repo rate
4. SLR
Select the correct answer using the codes given below:
a) 1 and 3 only
b) 1, 2 and 4 only
c) 1 and 4 only
d) 4 only

19. Consider the following statements:
1. Health is in Union List.
2. The right to life provided under Art. 21 of the Constitution of India have been used time and again to demand access to health care.
Which of the above statement/s is/are correct?
a) 1 only
b) 2 only
c) Both 1 and 2
d) Neither 1 nor 2

20. With reference to "Prevention of Corruption Bill, 2018", recently in news, which of the following statement(s) is/are correct?
1. It criminalizes bribe giving as well as bribe taking.
2. It defines a corrupt public official as any public servant who tries to obtain or accept from any person an "undue advantage with the intention to perform or cause performance of public duty improperly or dishonestly."
Select the correct answer using the code given below:
a) 1 only
b) 2 only
c) Both 1 and 2
d) Neither 1 nor 2

21. With reference to " Benami Transactions (Prohibition) Amended Act, 2015 ", which of the following statement(s) is/are correct?
1. The Bill seeks to establish adjudicating authorities and an Appellate Tribunal to deal with benami transactions
2. The Bill defines benamidar as the person in whose name the benami property is held or transferred, and a beneficial owner as the person for whose benefit the property is being held by the benamidar.
Select the correct answer using the codes given below:
a) 1 only
b) 2 only
c) Both 1 and 2
d) Neither 1 nor 2

22. Chirala a town in Andhra Pradesh is famous for
a) Eco Friendly saari
b) Kalamkari Art
c) Leather Puppetry
d) Metal craft

23. With reference to "Sashkat" plan, recently in news, is related to which of the following?
a) penalty on Individual who do not pay income tax
b) Aims at resolving the problem of bad loans with public-sector banks
c) Aims to improve mid day meal in the School
d) It calls for imprisonment who seek for pre-natal sex identification
24. Which of the following is the latest addition to UNESCO's intangible cultural heritage list?
a) Vedic Chanting
b) Kumbh Mela
c) Ramlila
d) Koodiyattam

25. Consider the following statements with respect to Asiatic Lions
1. Its range is restricted to Gir National Park in Gujarat
2. It is classified as Endangered in the IUCN Red List
Which of the statement/s is/are correct?
a) 1 only
b) 2 only
c) Both 1 and 2
d) Neither 1 nor 2

26. Consider the following statements
1. UNESCO Natural World Heritage sites are those sites with distinctive cultural facets such as geological formations, physical, biological and cultural landscapes.
Which of the statement/s is/are correct?
a) 1 only
b) 2 only
c) Both 1 and 2
d) Neither 1 nor 2

27. Consider the following statements
1. Gadhayuddham is a 10th century work by poet Ranna.
2. It is also known as Vikramarjuna Vijaya.
Which of the statement/s is/are correct?
a) 1 only
b) 2 only

c) Both 1 and 2
d) Neither 1 nor 2

28. Global Human Capital Index, recently in news, is published by
a) World Bank
b) World Economic Forum
c) The International Economic Association
d) Economic Development Organisation

29. With reference to "the Inter-American Court of Human Rights (IACHR), recently in news, which of the following statement(s) is/are correct?
1. The IACHR is an independent, multinational court that handles the human rights cases of people affected by the laws of countries that are members of the Organisation of American States (OAS).
2. It is a temporary body which monitors the general human rights and publishes country-specific human rights reports.
Select the correct answer using the code given below:
a) 1 only
b) 2 only
c) Both 1 and 2
d) Neither 1 nor 1

30. Recently, the government decided to impose a safeguard duty on the import of solar cells from:
a) China and Bangladesh
b) Malaysia and Bangladesh
c) China and Japan
d) China and Malaysia

31. With reference to "Ebola virus" recently in news, which of the following statement(s) is/are correct?
1. The virus spreads through direct contact with body fluids, such as blood from infected humans or other animals.
2. Recently, the Democratic Republic of Congo noticed Ebola cases.
Select the correct answer using the code given below:
a) 1 only
b) 2 only
c) Both 1 and 2
d) Neither 1 nor 2

32. Which of the following pair(s) is/are correctly matched?
1. Bhavantar Bhugtan Yojana: Madhya Pradesh
2. Bhavantar Bharapai Yojana: Haryana
3. Rythu Bandhu Scheme: Andhra Pradesh
Select the correct answer using the code given below:
a) 1 only
b) 1 and 3 only
c) 1 and 2 only
d) 1, 2 and 3

33. With reference to "Kadaknath chicken", recently in news, which of the following statement(s) is/are correct?
1. The famous Kadaknath chicken meat from Jhabua district of Rajasthan has now got a Geographical Indication (GI) tag.
2. Kadaknath is locally known as Kalamasi and is used for the treatment of many diseases, besides being considered an aphrodisiac.
Select the correct answer using the code given below:

a) 1 only
b) 2 only
c) Both 1 and 2
d) Neither 1 nor 2

34. With reference to "Project Mausam", recently in news, which of the following statement(s) is/are correct?
1. Project 'Mausam' is an initiative of the Ministry of Earth and Science.
2. It is to be implemented by the Archeological Survey of India (ASI) as the nodal agency with research support of the Indira Gandhi National Centre for the Arts (IGNCA) and National Museum as associate bodies.
Select the correct answer using the code given below:
a) 1 only
b) 2 only
c) Both 1 and 2
d) Neither 1 nor 2

35. Consider the following statements with reference to Sri Ranganathaswamy temple at Srirangam, which recently won UNESCO award for cultural heritage conservation:
1. Gopuram of this temple is the biggest gopuram in Asia.
2. It is built in the Vesara style of architecture.
3. It is a temple dedicated to Shaiva cult.
Select the correct answer using the code given below:
a) 2 and 3 only
b) 2 only
c) 1 and 3 only
d) 1 only

36. "Saubhagya Portal" is related to which of the following government schemes?
a) The Rashtriya Mahila Kosh
b) Beti Bachao Beti Padhao
c) Pradhan Mantri Sahaj Bijli Har Ghar Yojana
d) Ujjwala

37. India holds "Malabar Naval Exercise" with which of the following nations?
a) USA
b) USA and Japan
c) Japan and Australia
d) USA and Australia

38. 'State of the World's Children Report', recently in the news, is published by
a) The United Nations Educational, Scientific and Cultural Organization (UNESCO)
b) World Health Organisation (WHO)
c) The United Nations International Children's Emergency Fund (UNICEF)
d) Child Rights and You (CRY)

39. With reference to "Oxytocin", recently in news, which of the following statement(s) is/are incorrect?
1. Oxytocin is naturally secreted by the pituitary glands of mammals during sex, childbirth, lactation or social bonding, and is sometimes called "love hormone".
2. Males usually have this hormone in higher levels than females.
Select the correct answer using the code given below.
a) 1 and 2 only
b) Neither 1 nor 2
c) 1 only
d) 2 only

40. With reference to "Global Innovation Index (GII)", recently in news, which of the following statement(s) is/are correct?
1. India has been consistently declining in the GII ranking for the past two years.
2. GII is jointly released by Cornell University, INSEAD and World Intellectual Property Organisation (WIPO).
Select the correct answer using the code given below.
a) 1 only
b) 2 only
c) Both 1 and 2
d) Neither 1 nor 2

41. With reference to "Khangchendzonga Biosphere Reserve" which of the following statement(s) is/are correct?
1. The Reserve has become the 11th Biosphere Reserve from India to be included in the UNESCO designated World Network of Biosphere Reserves (WNBR).
2. Kanchenjunga Biosphere Reserve is a National Park and a Biosphere Reserve located in Assam.
Select the correct answer using the code given below.
a) 1 only
b) 2 only
c) Both 1 and 2
d) Neither 1 nor 2

42. Which of the following statements regarding mangroves vegetation is/are correct?
1. Mangroves require less solar radiation.
2. Mangroves help to impede water flow and thereby enhance the deposition of sediment
3. Leaves are thin and contain salt secreting glands.
4. According to State of Forest Report 2017, moderately dense mangroves constitute the largest part.
Options:
a) 1 and 2 only
b) 2 only
c) 2, 3 and 4 only
d) All of the above

43. Consider the following statement about Biosphere Reserves in India:
1. There are 30 Biosphere Reserves in India.
2. The Nilgiri Biosphere Reserve was the first reserve from the country to be included in the World Network of Biosphere Reserve.
Select the correct answer using the code given below.
a) 1 only
b) 2 only
c) Both 1 and 2
d) Neither 1 nor 2

44. Which of the following criteria a region must meet to be qualified as Biodiversity Hotspots?
1. It must contain at least 0.5% or 1,500 species of vascular plants as endemics.
2. It has to have lost at least 30% of its primary vegetation.
Select the correct answer using the code given below.
a) 1 only
b) 2 only
c) Both 1 and 2
d) Neither 1 nor 2

45. Consider the following statements about Sálim Ali Centre for Ornithology and Natural History (SACON):
1. The Sálim Ali Centre for Ornithology and Natural History (SACON) is a national centre for information, education and research in ornithology.
2. It is an autonomous organisation established in 1990 as a public- NGO partnership between the MoEF&CC, and the Bombay Natural History Society(BNHS).
3. It has its headquarters in Coimbatore, Tamil Nadu.
Which of the above statements are correct?
a) 1 and 2 only
b) 2 and 3 only
c) 1 and 3 only
d) All of the above

46. Consider the following statements about Zika Virus:
1. Zika virus (ZIKV) is a member of the virus family Flaviviridae. It is spread by daytime-active Aedes mosquitoes.
2. Its name comes from the Zika Forest of Nigeria.
3. Zika can spread from a pregnant woman to her baby which can result in microcephaly.
Select the correct answer using the code given below.
a) 1 and 3 only
b) 2 and 3 only
c) 1 and 2 only
d) None of the above

47. Consider the following statements about Shell Companies:
1. A shell corporation is a corporation without active business operations or significant assets.
2. All shell companies are illegal.
3. India has a concrete definition of shell companies.
Which of the above statements are incorrect?
a) 1 and 3 only
b) 2 and 3 only
c) 1 and 2 only
d) None of the above

48. Consider the following statements about NBFCs:
1. NBFC cannot accept demand deposits.
2. NBFCs form part of the payment and settlement system.
3. NBFCs lend and make investments.
Which of the above statements are correct?
a) 1 and 3 only
b) 2 and 3 only
c) 1 and 2 only
d) None of the above

49. What is the purpose of "Farmer Connect App"?
a) To boost farm exports from India to EU market
b) To facilitate farm registration, testing and certification
c) Connecting Farmer's Produce with Mandis
d) Both (a) and (b)

50. Which of the following organisations has “Regional Anti-Terrorist Structure (RATS)” as the counter terrorism wing?
a) Shanghai Cooperation Organisation (SCO)
b) Quadrilateral Grouping
c) North Atlantic Treaty Organisation (NATO)
d) Collective Security Treaty Organisation (CSTO)

51. Government has decided to establish a Turtle Sanctuary in which of the following cities?
a) Allahabad
b) Bharuch
c) Mumbai
d) Chennai

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a) Allahabad
b) Bharuch
c) Mumbai
d) Chennai

54. Consider the following statements:
1. Hydroponics is a technique whereby plants are grown with the help of sunlight and water.
2. Aquaponics combines aquaculture with hydroponics.
Which of the above is/are correct?
a) 1 only
b) 2 only
c) Both 1 & 2
d) Neither 1 nor 2

55. Floating Treatment Wetland (FTW) includes plants that help to clean lakes by absorbing nutrients such as excess nitrates and oxygen. FTW includes which of the following agents?
1. Vetivers
2. Hyacinth
3. Ashvagandha
4. Fountain grass
Select the correct answer from the following codes:
a) 1 & 2 only
b) 1, 2, 3
c) 1, 3 & 4
d) All of the above

56. Consider the following statements:
1. It is not mandatory for companies seeking environment clearance to have a dust mitigation plan.
2. Road dust contributes more than 50% of all PM10 pollution.
3. The generic term dust includes selenium and zinc.
Which of the above statements is/are correct?
a) 1 & 2 only
b) 2 & 3 only
c) 1 & 3 only
d) All of the above

57. For the purpose of providing information to a person, public authorities are obliged to give information in
a) English
b) Hindi
c) Both English and Hindi
d) Any language that he/she understands

58. Consider the following:
1. The President is not answerable to any court for exercising the powers and duties of his office.
2. Article 365 empowers the President to hold that a situation of constitutional failure has arisen in a state.
Which of the above statements is/are correct?
a) i) only
b) ii) only
c) Both i) and ii)
d) None

59. Which of the following were the causes for the socio-religious movements of the 19th century?
1. Establishment of British rule and its deep influence on the Political, Economic, Social and Cultural life of the people, which created conditions favourable for intellectual growth.
2. Newly emerging middle class & the traditional as well as western educated intellectuals
3. Literature
4. Christian Missionaries
Options:
a) i) and ii) only
b) ii) and iv) only
c) i), ii) and iv) only
d) All of the above

60. Who among the following is associated with 'Atmiya sabha'?
a) Bal Gangadhar Tilak
b) Raja Rammohan Roy
c) Mahadev Govind Ranade
d) Swami Vivekananda

61. Consider the following statements about High Speed Railway (HSR):
1. The HSR will run on Broad Guage so as to make it interoperable with existing railway lines.
2. At present, only Gatiman express can be classified as HSR according to International Standards.
Which of the statements given above is/are correct?
a) 1 only
b) 2 only
c) Both 1 and 2
d) Neither 1 nor 2

62. According to UNEP, 'Green Economy' includes which of the following?
1. Resource efficiency
2. Low carbon growth
3. Social inclusion
Which of the above statements is/are correct?
a) 1 and 2 only
b) 1 and 3 only
c) 2 and 3 only
d) 1, 2 and 3

63. With reference to "Chandrayaan-2", which of the following statement(s) is/are correct?
1. Chandrayaan-2 planned to be launched to the Moon by a Geosynchronous Satellite Launch Vehicle Mark III.
2. The project Chandrayaan-2 is a joint mission of ISRO with Roscomos.
a) 1 only
b) 2 only
c) Both 1 and 2
d) Neither 1 nor 2

64. With reference to "Repurpose Used Cooking Oil (RUCO) initiative", recently in news, which of the following statement(s) is/are correct?
1. The initiative was launched by the Ministry of Petroleum and Natural gas.
2. Under this initiative, 64 companies at 101 locations have been identified to enable collection of used cooking oil.
Select the correct answer using the code given below:
a) 1 only
b) 2 only
c) Both 1 and 2
d) Neither 1 nor 2

65. Consider the following statements regarding "Kanyashree Prakalpa Scheme:
1. It is a Small Cash transfer scheme for adolescent girls from disadvantaged families.
2. The scheme recently received United Nations Public Service Award.
Which of the statements given above is/are correct?
a) 1 only
b) 2 only
c) Both 1 and 2
d) Neither 1 nor 2

66. Consider the following statements about Intermediate-Range Nuclear Forces:
1. Intermediate-Range Nuclear Forces is a treaty between U.S and Russia.
2. This treaty requires destruction of the Parties' ground-launched ballistic and cruise missiles with ranges of between 500 and 5,500 kilometers.
a) 1 only
b) 2 only
c) Both 1 and 2
d) Neither 1 nor 2

67. Consider the following statements about National Police Commemoration Day (NPCD):
1. The National Police Commemoration Day (NPCD) is observed every year in India on October 21 to mark the memory of brave policemen who sacrificed their lives while discharging their duties.
2. The day commemorates the sacrifices of ten policemen while defending our borders with China in 1959.
Select the incorrect answer using the code given below:
a) 1 only

b) 2 only
c) Both 1 and 2
d) Neither 1 nor 2

68. Consider the following statements:
1. India's maiden lunar probe Chandrayaan-1 was launched by ISRO using a Polar Satellite Launch Vehicle (PSLV).
2. The purpose of the mission was chemical, mineralogical and photo-geologic mapping of the moon.
Which of the statements given above is/are correct?
a) 1 only
b) 2 only
c) Both 1 and 2
d) Neither 1 nor 2

69. India is member of which of the following 'Export Control Regimes'?
1. Wassenaar Arrangement
2. Australia Group
3. Nuclear Suppliers Group
4. Missile Technology Control Regime
Select the correct answer using the codes given below:
a) 1, 2 and 4
b) 1 and 2 only
c) 2, 3 and 4
d) 1 and 4 only

70. World bank supported 'SANKALP' and 'STRIVE' schemes will work in which of the following sectors?
a) Industrial Development
b) Agriculture
c) Skill Development
d) Scientific Innovation

71. Consider the following statement regarding IIP
1. IIP includes the data of Index of 8 core industries
2. Electricity sector has more weightage than the Mining sector
3. The revised combined weightage of Eight core Industries in the IIP is 40.27 %
Select the correct answer using the codes given below:
a) 1, 2 and 3
b) 1 and 3 only
c) 3 only
d) 2 and 3 only

72. Consider the following statement with regard to Ease of Living Index
1. It is released by the Ministry of science
2. Pune ranked first in the recent index
Select the correct answer using the codes given below:
a) 1 only
b) 2 only
c) Both 1 and 2
d) Neither 1 nor 2

73. With reference to "Bhitarkanika National Park", recently in news, which of the following statement(s) is/are correct?
1. Bhitarkanika National Park is located in Madhya Pradesh.
2. It is a home to country's 70 % estuarine or salt water crocodiles.

Select the correct answer using the codes given below:
a) 1 only
b) 2 only
c) Both 1 and 2
d) Neither 1 nor 2

74. Which of the following are cited by the Economic Survey as main reasons for Delhi's poor air quality?
1. Humidity and absence of wind
2. Crop residue burning
3. Power plants
4. Vehicular emission
Select the correct answer using the codes given below:
a) 1 and 2 only
b) 1, 2 and 3 only
c) 2 , 3 and 4 only
d) 1, 2, 3, 4

75. What is Twin Balance Sheet Syndrome?
a) Current account and Capital Account Deficits in Balance of Payment.
b) Fiscal Deficit and Current Account Deficit
c) Financial Stress faced by Public Sector Banks and Large Corporate houses.
d) Financial Stress faced by Public Sector Undertakings and Fiscal Deficit.

76. Panama disease, which is frequently in news, is related to:
a) Brain growth in new born children
b) Soil-borne fungus threatening Banana crops
c) Bio-accumulation of heavy metals in fish
d) Stunting in children aged below 10 years

77. With reference to "Bhitarkanika National Park", recently in news, which of the following statement(s) is/are correct?
1. Bhitarkanika National Park is located in Madhya Pradesh.
2. It is home to country's 70 % estuarine or salt water crocodiles.
Select the correct answer using the codes given below:
a) 1 only
b) 2 only
c) Both 1 and 2
d) Neither 1 nor 2

78. With reference to "Global Liveability Index", recently in news, which of the following statement(s) is/are correct?
1. The Index was released by the World Economic Forum.
2. In this year's Global Liveability Index 2018, Vienna displaces Melbourne as the most liveable city in the world.
Select the correct answer using the code given below.
a) 1 only
b) 2 only
c) Both 1 and 2
d) Neither 1 nor 2

79. Helina, recently in news, is related to:
a) Flood relief programme for Kerala.
b) It is a programme launched by the Indian government for malnutrition.
c) It is indigenously developed Helicopter launched Anti-Tank Guided Missile.
d) Joint military exercise between India and Sri Lanka.

80. Which of the following statements is/are correct about the Chandrayaan-2 mission?
1. It is a joint initiative of ISRO and NASA.
2. It will perform the objective of remote sensing of the moon.
Which of the above statements is/are correct?
a) 1 only
b) 2 only
c) Both 1 and 2
d) Neither 1 nor 2

81. With reference to "Project Elephant", which of the following statement(s) is/are correct?
1. Project Elephant was launched in 1992 by Wildlife Institute of India.
2. The project aims supporting research of the ecology and management of elephants, creating conservation awareness among local people, providing improved veterinary care for captive elephants.
Select the correct answer using the code given below.
a) 1 only
b) 2 only
c) Both 1 and 2
d) Neither 1 nor 2

82. With reference to 'leprosy', which of the following statement is/are correct?
1. Leprosy, also known as Hansen's disease (HD), is a long-term infection by the bacterium Mycobacterium leprae or Mycobacterium lepromatosis.
2. This may result in a lack of ability to feel pain, which can lead to the loss of parts of extremities due to repeated injuries or infection due to unnoticed wounds.
Select the correct answer using the code given below.
a) 1 only
b) 2 only
c) Both 1 and 2
d) Neither 1 nor 2

83. Which of the following ministries organises the International Buddhist Conclave biennially?
a) Ministry of Culture
b) Ministry of Minority Affairs
c) Ministry of Tourism
d) Ministry of External Affairs

84. Which of the following monumental locations have been accorded with Swacchh Iconic Place Tag?
a) Sri Ranganathaswamy Temple, Srirangam
b) The Taj Mahal, Agra
c) The Gateway of India, Mumbai
d) Meenakshi Sundareswarar Temple, Madurai

85. Consider the following the statement is regarding Financial Action task Force:
1. It deals with developing policies to combat money laundering and terrorism financing also.
2. It is an inter-governmental policy making body.
3. It monitors progress in implementing the FATF recommendations through a secretary chosen for this purpose.
Options:

a) 1 and 2 only
b) 2 and 3 only
c) 1, 2 and 3 only
d) 1 and 3 only

86. Consider the following statements:
1. The Swachh Nyayalaya project will be undertaken completely by NITI Aayog.
2. The Swachh Nyayalaya project involves a clean-up of all courtrooms and buildings and facilitation of amenities like house-keeping, which will take care of cleanliness, white-washing, renovations, etc.
Which of the above statements are correct?
a) 1 only
b) 2 only
c) Both 1 and 2
d) None of the above

87. Consider the following statements:
1. The Taxibot is a semi-robotic towbarless aircraft tractor.
2. The TaxiBot eliminates the use of airplane engines during taxi-in and until immediately prior to take-off during taxi-out.
Which of the above statements are correct?
a) 1 only
b) 2 only
c) Both 1 and 2
d) None of the above

88. Consider the following statements:
1. Aviation fuel is the fuel used to power aircraft in flight.
2. Aviation fuel is not a petroleum-based fuel.
Which of the above statements are correct?
a) 1 only
b) 2 only
c) Both 1 and 2
d) None of the above

89. With reference to 'leprosy', which of the following statement is/are correct?
1. Leprosy, also known as Hansen's disease (HD), is a long-term infection by the bacterium Mycobacterium leprae or Mycobacterium lepromatosis.
2. This may result in a lack of ability to feel pain, which can lead to the loss of parts of extremities due to repeated injuries or infection due to unnoticed wounds.
Which of the above statements are correct?
a) 1 only
b) 2 only
c) Both 1 and 2
d) None of the above

90. Consider the following statements with respect to " Near Earth Asteroid":
1. Near Earth Asteroids are also known as Potentially Hazardous asteroid.
2. The largest known NEA is Ganymed.
Which of the above statements are correct?
a) 1 only
b) 2 only
c) Both 1 and 2
d) None of the above

91. The Gadgil Committee, recently in news, is related to:
a) Banking reforms
b) Western Ghats
c) Women empowerment
d) Disabled persons

92. The Shanghai Cooperation Organisation (SCO) Peace Mission 2018 was held in which of the following countries?
a) Uzbekistan
b) Kazakhstan
c) China
d) Russia

93. Which of the following is/are members of the G-20?
1. India
2. Austria
3. Indonesia
4. Saudi Arabia
5. UAE
Select the correct answer from the options given below:
a) 1 and 2 only
b) 2, 3 and 4 only
c) 1, 3 and 4 only
c) All of the above

94. Consider the following statements with reference to United Nations Sustainable Development Goals (SDG) 2018 report:
1. According to report number of hungry people in the world is rising
2. It is an overview of progress towards achieving 2030 Agenda for Sustainable Development Goals (SDG).
Which of the statements given above is/ are correct?
a) 1 only
b) 2 only
c) Both 1 and 2
d) Neither 1 nor 2

95. 101. Which of the statement/s below is/are incorrect?
i. Nonconvertible debentures are unsecured bonds that cannot be converted to company equity or stock.
ii. Nonconvertible debentures usually have higher interest rates than convertible debentures.
Options:
a) i) only
b) ii) only
c) Both i) and ii)
d) None of the above

ANSWER KEYS

Question No	Answers
1	D
2	D
3	C
4	D
5	C
6	A
7	D
8	A
9	C
10	D
11	C
12	C
13	C
14	B
15	C
16	D
17	A
18	D
19	B
20	C
21	C
22	A
23	B
24	B
25	C
26	A
27	A
28	B
29	A
30	D
31	C
32	C
33	B
34	B
35	D
36	C
37	B
38	C
39	C
40	B
41	A
42	B
43	B
44	A
45	D
46	A
47	B

48	A
49	D
50	A
51	A
52	A
53	A
54	C
55	C
56	B
57	D
58	C
59	D
60	B
61	D
62	D
63	A
64	B
65	C
66	C
67	D
68	C
69	A
70	C
71	B
72	B
73	B
74	D
75	C
76	B
77	B
78	B
79	C
80	B
81	B
82	C
83	C
84	D
85	A
86	B
87	C
88	A
89	C
90	C
91	B
92	D
93	C
94	C
95	D

MAINS PRACTICE QUESTIONS

1. Electric vehicles will reduce fuel bills and are an integral component of the smart cities project. Discuss the advantages of electric vehicles and the role that EVs can play in urban management. Suggest ways in which the government can intervene to promote the use of EVs.
2. Discuss the challenges in transforming India into a Digital Economy.
3. Public participation is the key to good governance. In light of this statement, analyse the achievements of Swachh Bharat Abhiyan.
4. Discuss the issues related to agriculture in India. Suggest measures to contain the agrarian distress.
5. What do you understand by judicial empathy? Enumerate with examples.
6. The idea of Minimum Support Price (MSP) has come under criticism for being a factor contributing to inflation. Do you agree? Justify your answer
7. International relations is a delicate balancing act. Elaborate in the light of recent developments between India, the US, and Russia.
8. The process of defence acquisition has come under scrutiny recently. Examine the challenges that prevail in acquiring critical defence equipment. What are the steps one can take to overcome some of these challenges
9. India has a vibrant and active diaspora spread across the world. Examine the role that the Indian diaspora can play as far as furthering international cooperation between India and other nations
10. Recently, many Asiatic lions in Gujarat's Gir sanctuary have lost their lives. Examine the steps that can be taken to remedy the situation.
11. State the three basic values, universal in nature, in the context of civil services and bring out their importance.
12. Distinguish between "Code of ethics" and "Code of conduct" with suitable examples
13. What is meant by public interest? What are the principles and procedures to be followed by the civil servants in public interest?
14. "The Right to Information Act is not all about citizens' empowerment alone; it essentially redefines the concept of accountability. Discuss.
15. Cooperation between India and Russia rests on the fundamental pillars of political and strategic cooperation, military and security cooperation. Discuss
16. In a mature democracy, the casual resort to criminal prosecution for perceived insults to either a religion or a class of society ought to be actively discouraged. Comment in the context of section 153 A and 295 A.
17. What is meant by conflict of interest? Illustrate with examples, the difference between the actual and potential conflicts of interest
18. What do you understand by this statement in the present-day scenario? Explain. "In looking for people to hire, you look for three qualities: integrity, intelligence and energy. And if they do not have the first, the other two will kill you." – Warren Buffett
19. "In doing a good thing, everything is permitted which is not prohibited expressly or by clear implication". Examine the statement with suitable examples in the context of a public servant discharging his/her duties
20. With regard to the morality of actions, one view is that means is of paramount importance and the other view is that the ends justify the means. Which view do you think is more appropriate? Justify your answer
21. Suppose the Government of India is thinking of constructing a dam in a mountain valley bond by forests and inhabited by ethnic communities. What rational policy should it resort to in dealing with unforeseen contingencies?
22. Explain the process of resolving ethical dilemmas in Public Administration.
23. What does each of the following quotations mean to you in the present context?
    a) "The true rule, in determining to embrace, or reject anything, is not whether it has any evil in it; but whether it has more evil than good. There are few things wholly evil or wholly good. Almost everything, especially of governmental policy, is an inseparable compound of the two; so that our best judgment of the preponderance between them is continually demanded. "Abraham Lincoln
    b) "Anger and intolerance are the enemies of correct understanding. " _ Mahatma Gandhi
    c) "Falsehood takes the place of truth when it results in unblemished common good." _ Tirukkural

24. Safeguarding the Indian art heritage is the need of the moment. Comment
25. Assess the importance of the accounts of the Chinese and Arab travellers in the reconstruction of the history of India
26. Throw light on the significance of the thoughts of Mahatma Gandhi in the present times
27. Why is Indian Regional Navigational Satellite System (IRNSS) needed? How does it help in navigation?
28. The country that stands to lose the most from antibiotic resistance is India, given that its burden of infectious disease is among the world's highest. India needs to strengthen and implement regulations on antibiotic misuse. Discuss.
29. While the "feminisation of agriculture" is taking place at a fast pace, the government has yet to gear up to address the challenges that women farmers and labourers face. Discuss the challenges faced by women in this regard.
30. Why is the Indian Regional Navigational Satellite System (IRNSS) needed? How does it help in navigation?
31. Why is India taking a keen interest in the Arctic region?
32. "Caste system is assuming new identities and associational forms. Hence, the caste system cannot be eradicated in India."
33. 'Despite implementation of various programmes for the eradication of poverty by the government in India, poverty still exists'. Explain by giving reasons
34. Examine the major factors shaping the British Land Revenue Policy in India. How did it affect Indian society?
35. Any Constitution, which is irrespective to new challenges and old evils and permits itself to be subverted, will prove a tragicomedy and must suffer eclipse unless periodic mutations update it. Comment and also discuss the ways through which such mutations are performed
36. Defining blue revolution, explain the problems and strategies for pisciculture development in India.
37. What is the significance of Industrial Corridors in India? Identifying industrial corridors, explain their main characteristics
38. Mention core strategies for the transformation of aspirational districts in India and explain the nature of convergence, collaboration and competition for its success.
39. 'Women's movement in India has not addressed the issues of women of lower social strata.' Substantiate your view
40. Discuss the problems faced by migrant laborers in India. Suggest some measures to improve their conditions
41. The disaster at Amritsar is a reminder that government departments have not yet taken official protocols for safety at mass gatherings seriously. Critically analyse
42. It is important to ensure that the defamation law is no longer used as a tool for harassment. Examine
43. Political will is crucial to reform India's criminal justice system. Analyse
44. "Swachh Bharat has become a people's movement" critically evaluate the statement
45. 'Communalism arises either due to power struggle or relative deprivation.' Argue by giving suitable illustrations
46. The total number of tax returns filed in the country increased by over 80% over the last four financial years, according to data released by the Central Board of Direct Taxes recently. In this context highlight the steps taken by the Union government over the last few years to widen its tax base.
47. "Amritsar disaster – avoidable tragedy" – critically evaluate this statement in the context of recent tragedy in Amritsar.
48. It is important to note that a recent report by the government sent to the Ministry of Corporate Affairs (MCA) said a default by IL&FS could have significant repercussions, including widespread redemption pressures, sell-off in the debt market, liquidity crunch and 1,500 smaller NBFCs shutting shop for lack of adequate capital – In this context write a note on the issue of IL and FS default.
49. Write a note on the United Nations High Commissioner for Refugees as well as India's position on Refugees taking a few examples.
50. Each nation from the global community of nations will have to decide whether to play politics on a global scale for one's own interests or to collaborate to protect the world and its ecosystems as a whole – Analyse this statement in the context of recent report by the Intergovernmental Panel on Climate Change (IPCC) on global warming
51. It is important to note that #MeToo will also have to find a way to transcend its small, elite and urban sphere of influence. Examine the statement.

52. The farm loan waiver undermines honest credit culture and discipline. It endangers moral hazard and entails transfer from tax payers. Hence alternative to blanket waivers need to be explored and adapted. Critically examine the statement.
53. The friendship between India and Japan has a long history rooted in spiritual affinity and strong cultural and civilizational ties. Write a note on the contemporary India – Japan relations
54. Implementing the Acute Critical Care Course (ACCC) course in Indian hospitals, especially in the rural areas, can bring down the mortality rates due to medical negligence by nearly 50%. Comment.
55. India should stay focussed on long-term priorities like bilateral and regional connectivity and trade ties with Sri Lanka, and allow the situation in Colombo to work itself out. Critically analyse this statement with respect to the present democratic crisis in Srilanka.
56. The country's premier investigation agency, the Central Bureau of Investigation, is facing the biggest credibility crisis ever since it was formed as a special police force in 1941. Explain
57. Still recovering from the violence and bloodbath during its nearly three-decade-long civil war, and grappling with the economic and social challenges in its aftermath, Sri Lanka cannot afford to recede from the democratic space that opened up in 2015. Analyse this statement in the context of recent issues happening in Sri Lanka.
58. The ambitious goal set by India's IPR Policy rests on how universities embrace patents. What is your opinion on this?
59. "By common endeavour we can raise the country to a new greatness, while a lack of unity will expose us to fresh calamities." Examine the relevance of this statement in the present context.