Christchurch Massacre

Jacinda Ardern sets an example for Global Peace

Global Environment Outlook (GEO)

UN Environment's flagship environmental assessment.

Ayodhya Dispute

Will mediation help resolve the dispute?
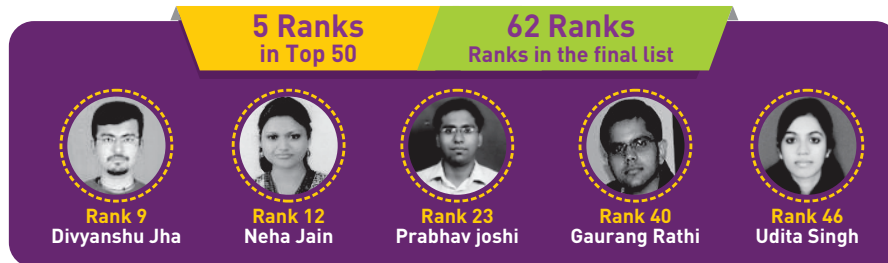
Rooftop Solar Programme

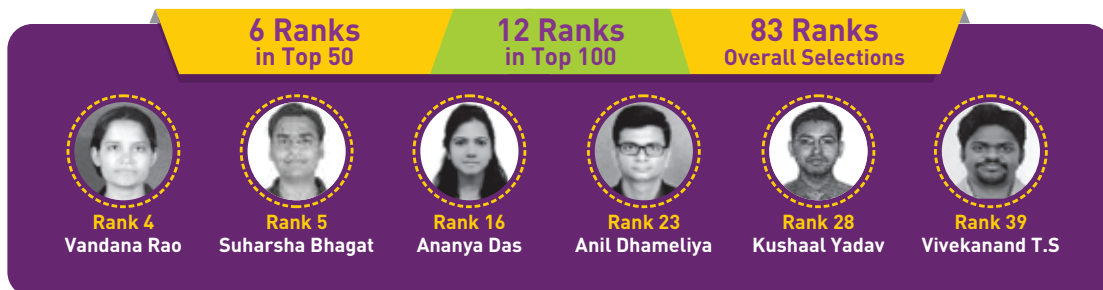Alternative sources of energy

Official Secrets Act

India's anti-espionage act
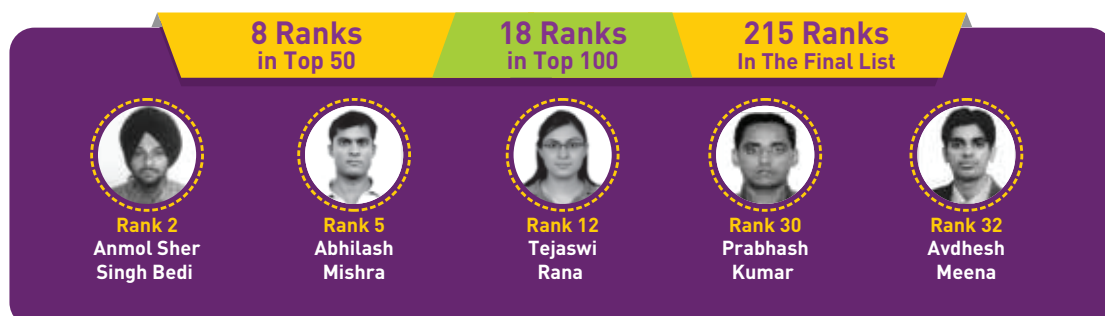
RESULTS

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 Rank-92	Rahul Shinde Rank-95	Kathawate Mayur Ashok Rank-96	Vaibhava Srivastava Rank-98	Videh Khare Rank-99	Plash Bansal Rank-112	Shilpa Singh Rank-116
Deepanshu Khurana Rank-120	Saurabh Sabhlok Rank-124	Abhimanyu Manglik Rank-128	Akash Bansal Rank-130	Abinash Kumar Rank-139	Sameer Saurabh Rank-142	Jyeshtha Maitrei Rank-156	Aaditya Mishra Rank-158	Ram Prakash Rank-162
Mainak Ghosh Rank-183	Archit Virendra Chandak Rank-184	Ankit Yadav Rank-191	Saurabh Gupta Rank-192	Kritika Jain Rank-197	Nahar Pranay Prakash Rank-199	Siddhant Jain Rank-201	Shubham Agarwal Rank-202	Nikita Khattar Rank-208
Kruti M Patel Rank-218	Smit Lodha Rank-219	Deepesh Kedia Rank-221	Ankit Jain Rank-222	Saurabh Baranwal Rank-235	Rajat R Chaturvedi Rank-237	Harsh Singh Rank-244	Ghuge Rohan Bapurao Rank-249	Bharat Mittal Rank-256
Dinesh Kumar Yadav Rank-257	Govind Mohan Rank-260	Shanu Dimri Rank-270	Shiv Narayan Sharma Rank-278	Sanjay Kumar Rank-279	Nikhil Singh Rank-280	Tuhin Sinha Rank-281	Vijaypal Bishnoi Rank-290	Shubhank Mishra Rank-291
Shakti Mohan Avasthy Rank-296	Lavanya Gupta Rank-298	Jagtap Gagdish Shankar Rank-304	Chetan Sharma Rank-305	Amandeep Dhanoa Rank-311	Budumajji Satya Prasad Rank-313	Aman Bishla Rank-314	Mohd Nooh Siddiqui Rank-326	Apurv Chauhan Rank-328

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POLITY

1. **Ayodhya Dispute**

Context

- The Supreme Court has referred the politically sensitive case of Ayodhya for mediation and appointed retired SC court judge FMI Kalifulla as the head and senior advocate Sriram Panchu and spiritual guru Sri Sri Ravi Shankar as two other members of the panel for the purpose.

Details

- The SC has ordered that the mediation proceedings will be held in-camera in Faizabad, Uttar Pradesh with all stakeholders who are involved in the case.

- It sought the views of the parties on invoking Section 89 of the Civil Procedure Code which deals with mediation.

- 89. Settlement of disputes outside the Court –

    * They (1) Where it appears to the Court that there exist elements of a settlement which may be acceptable to the parties, the Court shall formulate the terms of settlement and give them to the parties for their observations and after receiving the observations of the parties, the Court may re-formulate the terms of a possible settlement and refer the same for- (a) arbitration; (b) conciliation; (c) judicial settlement including settlement through Lok Adalat; or (d) mediation.

- Stressing the need for "utmost confidentiality" in the conduct of the mediation to ensure its success, the court opined that it might be best if the media refrained from reporting the proceedings.

A mediator is a neutral third party who facilitates a negotiated settlement between adversarial contenders.

Concerns

- For mediation, all the parties to a dispute should agree for this course of action. Mediation cannot be thrusted upon any party.

    * In the present case, mediation has been ruled out by most of the Hindu petitioners, including those representing deity Ram Lalla Virajman, and the Uttar Pradesh government.

- On this very point, the efforts for mediation may not go anywhere and once again end up in a deadlock.

    * This further causes delay in the process.

- Another point to note is that mediation in the Ayodhya dispute is not something fresh

    * Three-judge Bench of the Lucknow bench of Allahabad High Court had tried the same route of mediation. The process had collapsed.

* The only differences are that the mediation process will be court monitored and there would be a form of 'censorship' in reporting the proceedings.

- It's not clear how the five judges on the Constitution Bench decided on these three as mediators.

    * The neutrality of one of the three court-appointed mediators, Sri Sri Ravi Shankar, has come into question as some of his public pronouncements in the recent past appear to negate his supposed disinterestedness.

- The Supreme Court's decision to appoint a panel of mediators to resolve the long-standing Ram Janmabhoomi-Babri Masjid (Ayodhya) dispute is deeply problematic. By taking this route, the court has given the impression that the dispute is best solved outside the legal domain.

    * In a very short span of time, the court has moved from its position of treating this as a title dispute to a matter involving religious sentiments. It has not explained what led it to change its stance, especially since mediations that have taken place in the past have failed.

Matter of religion needs negotiation

- The mediators are men of eminence.

    * The chairman, Justice F M I Kalifulla has served with distinction on the Supreme Court.

    * Sriram Panchu is a senior advocate, who has pioneered mediation as an alternative dispute resolution mechanism in this country.

    * Sri Sri Ravi Shankar had played key role in Colombian peace process, where issue of civil war had persisted for about 5 decades between the Colombian Government and the FARC rebel group.

- Things have been tried before but there is no harm in trying the same principle now with new objectives and new outlook to it

- This dispute is not only about land but about Religion and emotions. Human needs and emotions are at the heart of interests. Mediation, in this case, needs to identify, express and discuss those needs and emotions which lie at the heart of the dispute will have to be respected and negotiated.

- A compromise could indeed be preferable to an order that may leave one side aggrieved

Conclusion

- The fact is, there is no evidence to show that the handful of parties claiming to represent Hindus and Muslims in this case are fully backed by their respective communities.

- In other words, the Babri Masjid/Ram Janmabhoomi imbroglio is no longer a life-affirming issue for the Indian masses, who are more concerned about jobs, poverty alleviation and access to affordable housing, health care and education.

- That said, both communities cannot afford to let the Ayodhya dispute simmer forever and stall the country's socio-economic growth.

- A collective assurance from the Hindu side that it would not stake claim to any other "disputed" mosque in India could be the face-saving compromise and win-win situation both sides are looking for.

2. **Contempt of Court- Shillong Times editor gets SC relief**

Context

- The Supreme Court stayed the conviction and punishment of The Shillong Times editor and publisher by the Meghalaya High Court in a contempt case.

Background

- The newspaper's editor Patricia Mukhim and publisher Shobha Chaudhuri were found guilty of contempt of court by a Single Judge of the High Court for the publication of an article on the perks and facilities for retired judges and their families.

Orders issues by the Court

- They were made to sit in the corner of the court room as punishment till the judges rose for the day and fined ₹2 lakh each.

- Failure to deposit the amount would result in six months simple imprisonment and the ban of the paper.

- The High Court invoked its powers under Article 215 of the Constitution to sentence the contemnors.

Origin of the issue

- It all began when the State government unilaterally decided to withdraw certain facilities to retired judges without consulting the court administration.

- After the matter was not resolved on the administrative side for two months, the court initiated suo motu proceedings and issued some directions.

- It was because of a news item, accompanied by a commentary on the court's directions, that the contemnors had incurred the court's displeasure.

  * The offending comments appeared to imply that the directions regarding extending facilities, including protocol services and domestic help, and reimbursing communication bills up to ₹10,000 a month and a mobile phone worth ₹80,000, to retired judges amounted to "judges judging for themselves".

- Courts are indeed empowered to decide whether a publication scandalised or tended to scandalise the judiciary or interfered with the administration of justice but there is no legal provision for an outright ban on it.

Laws governing Contempt

The contempt law in India is governed by the Contempt of Courts Act, 1971. The Supreme Court and High Courts by virtue of being courts of record, have the inherent jurisdiction to punish for contempt of court and the Contempt of Courts Act, 1971.

- Under Section 2(b) of the Contempt of Courts Act of 1971 defines civil contempt as willful disobedience to any judgment, decree, direction, order, writ or other process of a court or willful breach of an undertaking given to a court.

  * It not only encompasses willful disobedience to any judgment, decree, direction, order etc. of a court, it also takes in its fold a willful breach of an undertaking given to a court

- Under Section 2(c) of the Contempt of Courts Act of 1971, criminal contempt has been defined as the publication (whether by words, spoken or written, or by signs, or by visible representation, or otherwise) of any matter or the doing of any other act whatsoever which:

  * Scandalises or tends to scandalise, or lowers or tends to lower the authority of, any court, or

  * Prejudices, or interferes or tends to interfere with the due course of any judicial proceeding, or

  * Interferes or tends to interfere with, or obstructs or tends to obstruct, the administration of justice in any other manner.

Punishment for contempt of court

- Save as otherwise expressly provided in this Act or in any other law, a contempt of court may be punished with simple imprisonment for a term which may extend to six months, or with fine which may extend to two thousand rupees, or with both

Exceptions

The defences available to a contemner are engrafted in section 3 to 8 in the Contempt of Courts Act, 1971. Sections 3 to 7 specify the acts which would not be contempt.

- Innocent publication and distribution of matter.3

- Fair and accurate report of judicial proceeding.4

- Fair criticism of judicial act.5

- Bona fide complaint against presiding officers of subordinate court.6

- Publication of information relating to proceedings in chambers or in camera in certain cases.7

- Other defences.8

Concerns

- Any court to hold a journalist in contempt of court for their writings, it isn't sufficient that the journalist was critical of the court, or that what they said wasn't flattering to the court. There has to be falsehood, there has to be inaccuracy, and when it comes to commentary, there has to be unfairness. It is difficult to see how the articles in The Shillong Times fail to meet this standard.

- Even if they are considered guilty of criminal contempt, the sentence imposed by the high court is not justified. Section 12 of the Contempt of Courts Act says contempt is punishable with up to six months' imprisonment, or a fine of up to Rs 2,000. Justice Sen's order, on the other hand, imposes a fine of Rs 2 lakh each on Mukhim and the other journalist, failing which they are to go to jail for six months. The court did not have the power to impose a fine beyond that specified in the Act, which is another thing that makes this order questionable.

- Further, there is nothing in the Contempt of Courts Act or any other law which allows the court to ban The Shillong Times if two of its employees fail to comply with contempt orders against them. The Editors Guild has rightly said that the court's order is "intimidatory and undermines press freedom."

Conclusion

- Contempt of court is a powerful tool that is meant to be used by the courts to ensure obedience with its directions, and prevent attempts to interfere with the administration of justice. If this provides scope for restricting freedom of speech and expression, it is meant to be exercised reasonably.

- While there may be a need to curb tendentious criticism of the judiciary and self-serving comments on ongoing proceedings in mainstream and social media, there is a compelling case to use the contempt law sparingly, and avoid the impression that it is being used to stifle free speech or dissent.

3. 'Diary Entries' and Evidence Act

Context

- The documents involving former Karnataka chief minister B.S. Yeddyurappa, which disclosed alleged payouts in 2009, have once again raised the question: Can entries in diaries be treated as admissible evidence?

Details

Section 34 of the Indian Evidence Act requires 'diary entries' to cross a series of steep hurdles to pass muster as evidence.

- The diary entries should be made in a book. The book should be a 'book of account' kept regularly in the course of business. The diary entries alone will not be sufficient evidence to charge any person even if all the requirements are fulfilled and the jottings are proved relevant and admissible.

* The entries may, at best, be some form of corroborative evidence.

* Further independent proof is required before an FIR is lodged against the persons named in the diary.

- The diary or book of account should be 'regularly kept in the course of business.' That is, the entries should be part of "some continuous and uniform practice in the current routine of the business of the particular person to whom they belong."

Supreme Court Cases

- The apex court's judgment in Beni v. Bisan Dayal explains why diary entries alone cannot form the basis for an FIR.

* "A man cannot be allowed to make evidence for himself by what he chooses to write in his own books behind the back of the parties.

* There must be independent evidence of the transaction to which the entries relate and in absence of such evidence no relief can be given to the party who relies upon such entries to support his claim against another,"

- In CBI versus V.C. Shukla (Jain Hawala case), reported in 1998, the apex court explains the import of each term used in Section 34, the provision which deals with entries in a diary or a book.

* The term 'book' in the section means "a collection of sheets of paper or other material, blank, written, or printed, fastened or bound together so as to form a material whole."

* A 'book of account' used in Section 34 means a record of "formal statement of transactions between two parties, including debtor-creditor relation and arising out of contract, or some fiduciary relations."

- In its order in 2017 in the Sahara-Birla pay-offs case, a Supreme Court held that ordering the registration of an FIR against Prime Minister Narendra Modi, other national leaders and senior bureaucrats merely banking on "some diary entries and random loose computer sheets" was "inherently improbable."

4. ECI collaborates with Indian Railways

Context

- ECI has collaborated with Indian Railways for Voter Awareness Campaign.

- Four long-distance Trains will carry voter awareness messages.

Details:

- As part of the Voter Awareness campaign for the Lok Sabha Election 2019, Election Commission of India and Indian Railways have come together to utilize four long-distance Trains to carry voter awareness and motivational messages.

- The Train displays important contact details for the citizens including the Voter Helpline number and the National Voters' Services Portal besides motivational messages urging them to Vote.
- As the trains travel across the country, citizens will be encouraged to click a photograph with the train and upload it on social media, for further spreading the message.
- Indian Railways has one of the largest railway networks in the world. As per the report submitted by the Ministry of Railways, on an average, Indian Railways carry 22.24 million passengers and 3.04 million tonnes of freight each day. This widespread network ensures that communication on this platform has a wide reach in urban as well as rural segments.
- The trains have been selected on the longest North-South route and East-West route and cover 19 States in all.

5. Right to Self-Defense

Introduction

- Self-defense is defined as act of protecting self, to prevent force or violence perpetuated by opposite forces to cause harm, by applying sufficient level of counteracting force or violence
- In the words of Bentham, "The Right of Private Defence is absolutely necessary for the protection of ones life, liberty and property
- Section 96 to 106 of Indian Penal Code, states the law relating to the right of Private Defence of person and property
- The law of private defence is based on two main principles-

    * Everyone has right to defend his own body and property and another's body and property

    * The Right of Private Defence is not applicable in those cases where accused himself is an aggressive party

- The State is duty bound to protect public property. It implies that it is the fundamental duty of the state to protect its citizens and their property from any harm, and

    * In case the aid or help of state is not available and the danger is overhanging and is unavoidable at the moment then the person is authorized to use his force to protect himself from any harm or injury.

Context

- Supreme Court in its recent judgement has said "The right to self-defense extends not only to one's own body but to protecting the person and property of another"

What did SC say?

- The right embraces the protection of property, whether one's own or another person's, against certain specified offences, namely, theft, robbery, mischief and criminal trespass".
- The court explained that the right does not arise if there is time to have recourse to the protection of the public authorities. Nor does it extend to the infliction of more harm than is necessary.

Background

- Tamil Nadu forest ranger had shot dead a sandalwood "smuggler" in the Dharmapuri forest area in 1988.
- The trial court sentenced ranger Sukumaran to life in prison for murder.
- The Madras High Court reduced the term to five years.
- In appeal, the apex court concluded that Sukumaran had shot the "smuggler" Basha under threat to his own life and that of his driver, Chinnakolandai.

6. Tactical Voting

- Also known as strategic voting, this refers to the act of voting for a particular candidate or political party not because the voter necessarily supports them but because she wants to prevent some other party or candidate from winning.
- For example, a voter who prefers a leftist candidate would vote for a centrist candidate in order to prevent a right-wing candidate from winning because the leftist candidate is weak in that constituency

7. Voluntary Code of Ethics for the 2019 General Election

Context:

- The Social Media Platforms and Internet and Mobile Association of India (IAMAI), presented a "Voluntary Code of Ethics for the General Election 2019" to Election Commission.
- The Code of Ethics has been developed as a follow up to the meeting with IAMAI and representatives of Social Media Platforms including Facebook, WhatsApp, Twitter, Google, ShareChat and TikTok etc with the election commission.

Details:

- The 'Code of Ethics" has been developed to ensure free, fair & ethical usage of Social Media Platforms to maintain the integrity of the electoral process for the General Elections 2019.
- The Code voluntarily agreed upon by the Participants comes into operation with immediate effect.
- The Platforms have committed to process any violations reported under Section 126 of RP Act, 1951 within three hours as per Sinha Committee
- The Platforms have also agreed to create a high priority dedicated reporting mechanism for the ECI and appoint dedicated teams during the period of

General Elections for taking expeditious action on any reported violations.

- Participants have also agreed to provide a mechanism for political advertisers to submit pre-certified advertisements issued by Media Certification and Monitoring Committee.

- The Code of Ethics also promises to facilitate transparency in paid political advertisements. IAMAI has agreed to coordinate with participants various steps mentioned in this code. Participants have also committed to voluntarily undertake voter awareness campaigns.

About Umesh Sinha committee:

- Sr. Deputy Election Commissioner Umesh Sinha committee was set up to review and suggest modifications and changes in the provisions of Section 126 and other sections of the Representation of the People Act 1951, provisions of Model Code of Conduct and any other ECI instruction in this regard.

8. **VVPAT silence those sceptical of EVMs?**

What's in the news?

- The Election Commission indicated to the Supreme Court on 29th March, 2019, that if the 50% Voter Verified Paper Audit Trail (VVPAT) slip verification is carried out, it will delay counting by six days.

- Twenty-one Opposition parties had moved the Supreme Court against the EC's guideline that VVPAT counting would take place only in one polling station in each Assembly segment in the coming Lok Sabha election.

What is the VVPAT and how does it function?

- The Voter Verifiable Paper Audit Trail device is an add-on connected to the Electronic Voting Machine.

- It allows voters to verify if their vote has indeed gone to the intended candidate by leaving a paper trail of the vote cast.

- After the voter casts his or her mandate by pressing a button related on the ballot machine (next to the symbol of the chosen party), the VVPAT connected to it prints a slip containing the poll symbol and the name of the candidate.

- The slip is visible to the voter from a glass case in the VVPAT for a total of seven seconds and the voter can verify if the mandate that s/he has cast has been registered correctly.

- After this time, it is cut and dropped into the drop box in the VVPAT and a beep is heard, indicating the vote has been recorded.

- Prior to voting, the VVPAT unit is calibrated to ensure that the button pressed on the ballot unit of the EVM is reflected correctly on the printed slips by the VVPAT.

- The presence of the slips that correspond to voter choice on the EVM helps retain a paper trail for the votes and makes it possible for the returning officer to corroborate machine readings of the vote.

- The VVPAT machines can be accessed only by polling officers.

- The units are sealed and can be opened during counting by the returning officer if there's a contingency.

- The VVPAT has been a universal presence in all EVMs in the Assembly elections from mid-2017. Only a few VVPAT machines are tallied to account for the accuracy of the EVM.

- Currently slips in one randomly chosen VVPAT machine per Assembly constituency are counted manually to tally with the EVM generated count.

- The EC has stated that VVPAT recounts have recorded 100% accuracy wherever it has been deployed in Assembly elections.

Why is the VVPAT necessary?

- The EC began to introduce EVMs on an experimental basis in 1998, and it was deployed across all State elections after 2001.

- EVMs have made a significant impact on Indian elections.

- Prior to the deployment of EVMs, elections were held with ballot papers.

- In some States, the election process was vitiated by rigging, stuffing of ballot boxes and intimidation of voters.

- Besides this, ballot paper-based voting resulted in the casting of a high number of invalid votes — voters wrongly registering their choices instead of placing seals, and so on.

- The EVMs allowed for elimination of invalid votes as the voting process was made easier — registering the vote by pressing a button.

- It also allowed for a quicker and easier tallying of votes.

- Cumulatively, the tallying and elimination of invalid votes reduced the scope for human error.

- Secondly, the EVMs made it difficult to commit malpractices as they allowed for only five votes to be registered every minute, discouraging mass rigging of the scale that was seen in earlier days when ballot papers were used.

- That said, there have been questions raised about the security of the EVMs and whether they can be manipulated and tampered with.

- The EC has addressed the possibility of tampering by gradually introducing newer security and monitoring features, upgrading EVMs with technological features that allow for dynamic coding and time-stamping of operations on ballot units and later, features such as tamper-detection and self-diagnostics.

- Furthermore, there are administrative steps that prevent EVMs from being stolen and tampered with.

- The introduction of the VVPAT adds another layer of accountability to the electoral process. The recount rules out any EVM tampering, despite the safeguards, through an "insider fraud" by EC officials or EVM manufacturers.

What problems have been encountered?

- In the initial phase of VVPAT implementation in the Lok Sabha by-elections in States such as Uttar Pradesh, Bihar and Maharashtra and the Assembly election in Karnataka, there was a high rate of failure of VVPAT machines due to manufacturing glitches.
- In the Lok Sabha by-elections in 2017, the rate of VVPAT replacement, owing to glitches, was more than 15%, higher than the acceptable rates of failure (1-2%).
- In Karnataka, the failure and replacement rate was 4.3%.
- Coincidentally, the failure rate of the EVM unit (excluding the VVPAT) was very low.
- These glitches also caused severe disruptions to polling.
- To account for failure rates, the EC has tried to provide back-up machines to allow for swift replacement.
- The EC admitted later that the machines had high failure rates owing to hardware issues that occurred during the transport of EVMs and their exposure to extreme weather conditions.
- It sought to correct these problems by repairing components related to the printing spool of the VVPAT machines.
- The deployment of many corrected machines in the Assembly elections held recently in Madhya Pradesh, Rajasthan and Chhattisgarh resulted in much reduced replacement rates (close to 2.5% in Madhya Pradesh and 1.9% in Chhattisgarh).
- This suggests that the EC is relatively better prepared to handle VVPAT-related glitches in the upcoming Lok Sabha election, where the VVPATs will be deployed in nearly 10.5 lakh polling stations nationwide.

Is the current rate of VVPAT recounts enough?

- Political parties, primarily of the Opposition, have demanded a greater VVPAT recount than the one booth per Assembly/Lok Sabha constituency rule that is now in place.
- The EC responded to a plea by the Opposition parties in the Supreme Court that there was a need for 50% VVPAT recount, saying such an exercise would delay the counting by six days.
- Statistically speaking, it does not require a 50% sample to adequately match VVPAT tallies with those of EVMs.

- The Indian Statistical Institute, Kolkata, has presented a report on possible and appropriate VVPAT counts to the EC, in which it said a sample verification of 479 EVMs and VVPATs of a total 10.35 lakh machines would bring the level of confidence in the process to 99.9936%.
- The logic behind counting only one booth per constituency in each State stems from the understanding that there are nearly 10.35 lakh polling stations and 4,125 Assembly constituencies in the country.
- By counting the slips in at least one VVPAT in each Assembly constituency, the EC argues, a relatively high sample size of the EVMs (0.5%) is verified.
- Critics have argued that this sample size is not enough to statistically select a potentially tampered EVM within a high confidence level and adjusting for a small margin of error (less than 2%) as the unit of selection must be EVMs in each State rather than the entire country as a whole.

Concluding Remarks:

- One suggestion, by the former bureaucrat Ashok Vardhan Shetty, is for adjusting the VVPAT counting process to factor in the size of the State, population of the constituency and turnout to account for a higher confidence level and a low margin of error.
- This would entail the certain tallying of more than one VVPAT per constituency, in fact close to 30 per constituency in smaller States and less than five per constituency for larger States.
- The Supreme Court has said the EC must increase the VVPAT count to more than the current number.

9. **'J&K ordinance cleared by Union Cabinet doesn't tinker with 35A or 370'**

Context

- The Union Cabinet has approved the Jammu and Kashmir Reservation (Amendment) Ordinance, 2019 that will pave the way to extend reservation in jobs, promotions and education to people living 10 km from the International Border (IB) in Jammu.
- Once the Ordinance is issued, it would pave the way would pave the way for bringing persons residing in the areas adjoining International Border within the ambit of Reservation at par with persons living in areas adjoining Actual Line of Control.

Details of the Ordinance

- 10% reservation for economically weaker sections made applicable in J&K also. This would pave the way for reserving State Government jobs to the youth of J&K who are from economically weaker sections belonging to any religion or caste.

- It may be recalled that 10% reservation to economically weaker sections was introduced in rest of the country through the 103rd Constitution Amendment in January 2019. This will be in addition to such reservation available in Govt. of India jobs also.

- Benefit of promotion to Scheduled Castes and Scheduled Tribes, which include Gujjars and Bakarwals amongst others, has also been made applicable to the State of J&K. After a long wait of 24 years, the 77thConstitution Amendment of 1995 has now been applied to the State of J&K.

- People living near the International Border have been brought at par with those living near the Line of Control for reservation in State Government jobs by amending the Jammu and Kashmir Reservation Act, 2004 through an Ordinance.

- Earlier, the provision of 3% reservation was available only for youth living within 6 kms. Of LoC in J&K. Now, this provision will be applicable for people living near the international border also. This has been a long-pending demand of the population living near the international border, as they have been facing the brunt of cross border firing in J&K.

Larger Background and status quo:

- The constitutional relationship between J&K and the Indian Union has been the subject of numerous discussions in recent times. This has rekindled the long-standing debate on the continued relevance of Article 370.

- As in Article 370, the provisions of the Indian Constitution do not automatically apply to J&K. To extend constitutional provisions and amendments to the State, a presidential order to that effect has to be passed.

- This order requires the concurrence of the State government, where the subject matter does not relate to the subjects specified in the Instrument of Accession (defence, external affairs, and communications). For other cases, only consultation is required.

- Accordingly, a 1954 presidential order extended various provisions of the Indian Constitution to J&K. This order was made with the concurrence of the State government and also ratified by the State Constituent Assembly.

- After the J&K Constitution came into effect in 1957, the State Constituent Assembly was dissolved. Since then, more than 40 such orders have been made, through which most constitutional provisions have been extended to the State.

- Some experts take the view that the sheer number of such orders, as well as the circumstances under which they were made, have considerably eroded J&K's special status under Article 370.

- Having said this, it is also important to note that the state of J&K is not unique; there are special provisions for several States which are listed in Article 371 and Articles 371-A to 371-I.

A gradual decline: Different Stages of dilution

1. First Stage of Dilution

- From the 1950s there has been a gradual dilution of the procedural norms followed by these presidential orders.

- In passing the 1954 order, procedural propriety was followed in the fullest possible sense as the requisite concurrence was obtained not only from an elected State government but also the State Constituent Assembly.

- The presidential orders made after the dissolution of the State Constituent Assembly — except a 1986 order extending Article 249, and the present 2019 order — can be seen as the first level of dilution.

- This is so because for all these orders, while the concurrence of an elected State government was obtained, the State Constituent Assembly did not exist and, therefore, could not give its ratification.

- Further, although the Supreme Court upheld this practice in the Sampat Prakash case (1968), it has been criticised as being beyond the scope of Article 370.

2. Second Stage of Dilution

- The 1986 order represents a second level of dilution.

- This is because it was made when J&K was under Governor's rule as per Section 92 of the J&K Constitution.

- In the absence of an elected council of ministers, the Governor could not have validly given the requisite concurrence to the presidential order.

- It is important to note that even if the Governor acting without a popularly elected government can be considered as a "state government" for the purposes of concurrence, the Governor must at least have had some nexus with the State and some independence from the Centre.

- However, this is not the case in practice, since the Governor is not only an unelected nominee of the Central Government but also holds office during the latter's pleasure. Not surprisingly, the 1986 order was challenged in the J&K High Court; it is still pending.

3. Third Stage of Dilution

- Some experts point out that if the 1986 order was problematic, the third level of dilution brought about by the 2019 order is almost the final blow.

- In December 2018, the President assumed all the functions of the State government and the Governor through a proclamation under Article 356.

- In an order passed on the same day, the President directed that all powers assumed by him would be exercisable by the Governor as well, "subject to the superintendence, direction, and control of the President".

- This is the main point of distinction between the 1986 and 2019 orders.

- During Governor's rule, as was the case in 1986, the Governor is at least on paper expected to act independently.

- However, in the present case involving President's rule, the Governor is reduced to a mere delegate of the Centre and is expected to act as per the aid and advice of the Central Government.

- It is important to note that a presidential order made through obtaining such a Governor's concurrence is tantamount to the Centre talking into a mirror and makes a mockery of Article 370.

The spirit of federalism: Concluding Remarks

- The manner in which the 2019 order was made also goes against the spirit of federalism, which is a salient constitutional principle.

- President's rule is an exception to the general constitutional scheme that envisages representative government at the State level to accommodate regional aspirations.

- Extending constitutional provisions to the State during this exceptional state of affairs is suspicious.

- Some experts take the view that if the Centre had legitimate intentions, it should have waited until the formation of an elected government in J&K.

- In the absence of popular will backing it, the 2019 order clearly falls foul of the principles of constitutional and political morality.

- Commenting on the 1986 order, the Sarkaria Commission had observed that "every action which is legally permissible may not be necessarily prudent or proper from the political stand-point".

- In conclusion, not only is the recent presidential order against federalism generally and the spirit of Article 370 in particular but it also violates the letter of the Constitution.

10. When free speech is truly free

Larger Background:

- It Responsible speech is the essence of the liberty granted under article 21 of the Constitution.

- One of the greatest challenges before the principle of autonomy and free speech principle is to ensure that this liberty is not exercised to the detriment of any individual or the disadvantaged section of the society. In a country like India, with diverse castes, creed, religions and languages, this issue poses a greater challenge.

- Article 19(2) of the Constitution guarantees freedom of speech and expression to all citizens of India. This article is subjected to certain restrictions, namely, sovereignty and integrity of India, the security of the State, friendly relations with foreign States, public order, decency or morality or in relation to contempt of court, defamation or incitement to an offence.

- The Constitution of India acknowledges that liberty cannot be absolute or uncontrolled and makes provisions in clauses (2) to (6) of article 19 authorising the State to restrict the exercise of the freedom guaranteed under that article within the limits specified in those clauses.

- Thus, clause (2) of article 19, as subsequently amended by the Constitution (First Amendment) Act, 1951 and the Constitution (Sixteenth Amendment) Act, 1963, enabled the legislature to impose reasonable restrictions on the exercise of the right to freedom of speech and expression in the interests of (i) the security of the State and sovereignty and integrity of India, (ii) friendly relations with foreign States, (iii) public order, (iv) decency or morality, or in relation to contempt of court, defamation or incitement to an offence.

  * Right to freedom of speech and expression is one of the most essential liberties recognized by the democratic States.

  * The concept of liberty has been primarily influenced by the principle of individual autonomy.

  * The liberal theory of free speech views speech as an intrinsic aspect of autonomous individual, hence any restriction on exercise of this liberty is always subject to judicial scrutiny.

  * The objective of free speech in a democracy is to promote plurality of opinions.

Brief Perspective on Hate Speech:

- It is important to note that hate speech can be curtailed under article 19(2) on the grounds of public order, incitement to offence and security of the State.

- The Supreme Court in Brij Bhushan v. State of Delhi opined that public order was allied to the public safety and considered equivalent to security of the State.

This interpretation was validated by the First Constitution Amendment, when public order was inserted as a ground of restriction under 19(2).

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- However, in Ram Manohar Lohiya v. State of Bihar, the Honourable Supreme Court distinguished law and order, public order and security of State from each other. Observing that: "One has to imagine three concentric circles. Law and order represents the largest circle within which is the next circle representing public order and the smallest circle represents security of State. It is then easy to see that an act may affect law and order but not public order just as an act may affect public order but not security of the State."

- It is important to note that the standard applied for restricting article 19(1)(a) is the highest when imposed in the interest of security of the State. Also, a reasonable restriction under article 19(2) implies that the relation between restriction and public order has to be proximate and direct as opposed to a remote or fanciful connection.

- In Ramji Lal Modi v. State of U.P., the Supreme Court upheld the constitutional validity of this section 295A IPC and ruled that this section does not penalise every act of insult to or attempt to 'insult the religion or the religious beliefs of a class of citizens but it penalises only those acts of insults to or those varieties of attempts to insult the religion or the religious beliefs of a class of citizens, which are perpetrated with the deliberate and malicious intention of outraging the religious feelings of that class.

- It was also held by the Court that the expression in the 'interest of public order' mentioned in article 19(2) is much wider that 'maintenance of public order'.

- Therefore, even if an act does not actually cause breach of public order, its restriction 'in the interest of public order' will be deemed reasonable.

Editorial Analysis:

- It is important to note that freedom is a theme which is going to come up again and again during the election season.

- It is a term, like truth, that has globally become extremely important today.

- But it is not an easy concept to understand, especially in a public political discourse.

- First of all, there are many kinds of freedom:
  * freedom to speak,
  * to write, to think, to imagine,
  * to live our lives, to eat what we want, and so on.

This i However, since this term is invoked so quickly and so easily — it is important that we understand its diverse meanings in our everyday use of this term.

Freedom to hold forth?

- We often tend to think that among the main elements of democracy are the holding of elections and a free media.

- Both elections and free media are important because they stand, among other things, for the notions of free speech and free expression.

- Casting a vote anonymously, of one's own free will, is an example of free expression and is broader than just 'free speech'. Similarly, when the media has the freedom to air all kinds of views, it is seen to be an example of free speech. An important question arises: Is free speech really the essence of democracy? Is it really so important for an effective democracy?

- Paradoxically, there is an inherent tension between free speech and democracy. If free speech is understood merely as the freedom to say what one wants, then that is obviously not conducive to meaningful social behaviour. For example, one can spread falsehood about another in the name of free speech. One can insult, lie, create harm and hatred through free speech.

- The answer to the problem of defining what really constitutes free speech lies in understanding the meaning of 'free' in free speech. What is really free in free speech? The freedom to say what one wants? We can't really say what we want all the time since all speech is constrained.

- We are constrained by language, words, concepts and grammar, and even by the physical contours of our mouth. We are constrained by the biological and cognitive structures related to thought and its expression through language. Socially, we are not fully free to say what we want. We cannot make certain utterances in certain places. A commentator, commenting on a game of cricket, cannot suddenly give a lecture on philosophy saying that he is protected by free speech!

The Costs of Free Speech:

- In addition to constraints, all speech also has a cost. When we utter something, good or bad, there is a price to pay.

- Even in personal relations with family and friends, we cannot say what we want. If we do so — that is, if we are honest and outspoken — there is a price to pay.

- Relationships get broken, wars are declared between people because somebody spoke 'freely'.

- Thus, the essence of free speech is not really about the freedom to say what we want. It is more about speech which is free, which comes with no cost.

- Some experts opine that free speech is actually speech for which you don't pay a price. But paying a price is not in the hands of the speaker.

- Free speech is nothing but the conditions under which the hearer is not allowed to take offence and intimidate the speaker.

- The real freedom in 'free speech' lies not in the freedom of the speaker to say what she wants but in the constraint on hearers to allow the speaker to say what she wants.

- Thus, when we demand the right to free speech, we are essentially demanding the right to stop others from not letting us speak.

- The most important consequence of the idea of free speech is that it shifts the responsibility of free speech from the speaker to the hearer.

- But does this mean that anybody can say what they want? Can they slander a person through falsehood in the name of free speech? Is slandering a person the same as criticising the government or the nation? After all, our governments, independent of which party is in power, have effectively used the charge of sedition to stop certain utterances in public.

Criticism as a duty:

- Crucially, it is not free speech to purposefully slander a person. But criticising the government or nation is not the same as slandering an individual.

- Experts opine that such criticism is not just a right, it is more a duty of democratic societies. In a true democracy, there is nothing that can be considered as slandering the government, even if a criticism may be wrong and unjustified. That is because free speech is a tool to make democracy workable and it is not really about the individual freedom to say what one wants.

- Democracy is about governance for others and on behalf of others.

- It is a social and public system of responsibility of governance. The very foundation of democracy is collective action and the real freedom in a democracy is the freedom of choosing who will govern on our behalf.

- The ideal of democracy is that we are all potential rulers — any one of us can be the Prime Minister of our country. When we elect somebody, we are only putting a group of people to govern on behalf of us. Free speech is the mechanism to make sure that they govern correctly and on our behalf. It is only free speech, defined in this manner, that makes democracy workable.

- The true power of free speech lies in its capacity to make those in power accountable to those who do not have power.

- It is a means to control those in power and is not really about freedom of individuals.

- The price we demand for making somebody govern on our behalf (the elected leaders) is to allow us to say what we want about them, not as individuals but as political leaders.

The power equation

- Thus, true free speech covers only those acts of speech which speak against power, and keep those in power accountable.

- It thus safeguards the most cherished democratic principle. Free speech by itself is not the essence of democracy but is the means by which any democracy can be sustained. Anybody who doesn't like to hear criticism of government or government representatives is being undemocratic.

- We dilute the importance of free speech when we use it to derive personal benefit or cause harm or do so in situations which are not about power.

- In conclusion, speech, in the task of keeping check on power, has to be subsidised and made free by those in power.

ECONOMY

1. A SWIFT response could have saved banks

Context:

- RBI had been warning lenders on possible misuse of Society for Worldwide Interbank Financial Telecommunication (SWIFT); it has finally fined 36 banks for negligence.

What is SWIFT?

- The Society for Worldwide Interbank Financial Telecommunication (SWIFT) is the global messaging software that enables financial entities to send and receive information about financial transactions in a secure, standardised and reliable environment.

- It is a global member-owned cooperative that is headquartered in Brussels, Belgium.

- It was founded in 1973 by a group of 239 banks from 15 countries which formed a co-operative utility to develop a secure electronic messaging service and common standards to facilitate cross-border payments.

- It carries an average of approximately 26 million financial messages each day. In order to use its messaging services, customers need to connect to the SWIFT environment.

- There are several ways of connecting to it: directly through permanent leased lines, the Internet, or SWIFT's cloud service (Lite2); or indirectly through appointed partners.

- Messages sent by SWIFT's customers are authenticated using its specialised security and identification technology.

- Encryption is added as the messages leave the customer environment and enter the SWIFT Environment.

- Messages remain in the protected SWIFT environment, subject to all its confidentiality and integrity commitments, throughout the transmission process while they are transmitted to the operating centres (OPCs) where they are processed — until they are safely delivered to the receiver.

Details:

- Much before the Punjab National Bank Scam in 2018, RBI cautioned the banks about the possible misuse of the SWIFT infrastructure and directed them to implement safeguards.

- Despite repeated warnings, the PNB fraud, touted to be among the biggest in the industry, happened.

- Even the PNB scam failed to wake up banks. As a result, the regulator came down heavily on the banks, imposing monetary penalty on 36 banks for failing to implement the safeguard which was mainly integrating the SWIFT infrastructure with Core Banking Solution (CBS) within a time frame.

- The Banking Regulation Act allows the RBI to impose a maximum penalty of Rs. 1 crore for a single breach.

- In April 2017, under former RBI Governor Urjit Patel, the RBI had set up an enforcement department. The idea was to centrally speed up regulatory compliance.

- The purpose was to separate those who oversaw possible rule breaches and those who decided on punitive actions so that the enforcement process operated fairly and was evidence based.

- "Now, all the penalty powers are processed through one single department. The department essentially was set up to identify actionable violations. It follows a consistent, rule-based policy for enforcement," central banking sources indicate.

RBI Circular:

- It was an outcome of what happened in the PNB scam. It was believed that the scam is mainly due to people and process failure not so much a technology failure.

- The guidelines were mainly about people and process and though there were some technology tweaking that the banks had to do, the major one had been sending messages from the core banking system

Why were the banks penalised?

According to the experts, there are four reasons why the banks were penalised:

- For not maintaining the timeline though many of them have complied with the norms now.

- Since the Core Banking Solution (CBS) was required to be integrated with SWIFT, the question is whether CBS was equipped for this. Which means compliance was required from third-party vendors and their lack of readiness also could have led to delays.

- Third, even if the third-party software was ready, the bank may not have used it effectively.

- There could be some small banks who may be not have started the process.

Conclusion:

- There are speculations that the RBI action may not go down well with the global inter-governmental agency Financial Action Task Force (FATF) during the country assessment.

- At present, the fourth round of assessment is going on and India is likely to be assessed soon.

- The FATF reviews anti-money laundering, combating the financing of terrorism policies of countries, the compliance of financial institutions of these countries and the supervisory effectiveness in enforcing them.

- Questions could be raised as to why banks are so reluctant to comply with regulatory directions on an important issue such as international wire transfer mechanism.

- Queries may also be raised as to why the regulator was unable to make lenders comply with its directions in a time-bound manner and as to what steps the regulator is taking so that such incidents do not recur.

2. Coffee Blockchain Initiative

Context

- With a view to enabling growers find better price for their produce, the Coffee Board has launched Coffee Blockchain, a marketplace app, developed in coordination with Eka Software Solutions.

Why was this important?

- In India, coffee is cultivated in about 4,54,000 hectares by 3,66,000 coffee farmers -- 98% of them small farmers -- whose returns are meagre.

- It is aimed at getting growers better returns by removing myriad middlemen.

- The aim of using blockchain is to "premium-ise" coffee, add "bean-to-cup traceability"

Details

- It is the country's first blockchain-based marketplace app for trading in Indian coffee launched by Coffee Board

- Anyone willing to participate in the marketplace will have to register on the app and will get a smart contract number.

- The blockchain platform will allow a coffee producer to directly transact with multiple buyers.

3. Coffee gets GI certification

The Department for Promotion of Industry and Internal Trade, Ministry of Commerce and Industry, has recently awarded Geographical Indication (GI) to five varieties of Indian coffee.

- Coorg Arabica coffee is grown specifically in the region of Kodagu district in Karnataka.

- Wayanaad Robusta coffee is grown specifically in the region of Wayanad district which is situated on the eastern portion of Kerala.

- Chikmagalur Arabica coffee is grown specifically in the region of Chikmagalur district and it is situated in the Deccan plateau, belongs to the Malnad region of Karnataka.

- Araku Valley Arabica coffee can be described as coffee from the hilly tracks of Visakhapatnam district of Andhra Pradesh and Odisha region at an elevation of 900-1100 Mt MSL.

  * The coffee produce of Araku, by the tribals, follows an organic approach in which they emphasise management practices involving substantial use of organic manures, green manuring and organic pest management practices.

- Bababudangiris Arabica coffee is grown specifically in the birthplace of coffee in India and the region is situated in the central portion of Chikmagalur district.

  * Selectively hand-picked and processed by natural fermentation, the cup exhibits full body, acidity, mild flavour and striking aroma with a note of chocolate.

  * This coffee is also called high grown coffee which slowly ripens in the mild climate and thereby the bean acquires a special taste and aroma.

The Monsooned Malabar Robusta Coffee, a unique specialty coffee from India, was given GI certification earlier.

Coffee cultivation is mainly done in the Southern States of India:

- Karnataka – 54%

- Kerala – 19%

- Tamil Nadu – 8%

Significance

- The recognition and protection that comes with GI certification will allow the coffee producers of India to invest in maintaining the specific qualities of the coffee grown in that particular region.

- It will also enhance the visibility of Indian coffee in the world and allow growers to get maximum price for their premium coffee.

4. Country-by-country (CbC) reports

Context

- India and the U.S. signed an inter-government agreement for the automatic exchange of country-by-country (CbC) reports, which will reduce the compliance burden for Indian subsidiary companies of U.S. parent companies.

- This is a key step in making India compliant with the Base Erosion and Profit Shifting (BEPS) project, of which it is an active participant.

Base erosion and profit shifting

- It refers to the activities of multinational corporations to shift their profits from high tax jurisdictions to lower tax jurisdiction, thereby eroding the tax base of the high tax jurisdictions and depriving them of tax revenue.

- In order to combat this, many countries entered into agreements to share tax information with each other to enhance transparency and make such profit shifting that much harder.

What is CbC?

- The Base Erosion and Profit Shifting (BEPS) Action Plan adopted by the Organisation for Economic Co-operation and Development (OECD) and G20 countries in 2013 recognised that the way forward to mitigate risk from base erosion and profit shifting was to enhance transparency.

- Against this background, a template was released in 2014, which outlined how MNEs could report the required information for each tax jurisdiction in which they do business. These are called the country-by-country reports.

- MNEs are also required to identify each entity within the group doing business in a particular tax jurisdiction, and to provide information about the business activities each entity conducts.

- This information is to be made available to the tax authorities in all jurisdictions in which the MNE operates. This was seen as placing a huge compliance burden on the subsidiary companies of these MNEs.

- It provides a template for multinational enterprises (MNEs) to report annually and for each tax jurisdiction in which they do business

Details

- This Agreement for Exchange of CbC Reports, along with the Bilateral Competent Authority Arrangement between the two competent authorities, will enable both the countries to automatically exchange CbC reports filed by the ultimate parent entities of multinational enterprises (MNE) in the respective jurisdictions, pertaining to the years commencing on or after January 1, 2016

5. EASE Reforms Index

- Enhance Access & Service Excellence (EASE)

- The EASE index, is prepared jointly by the Indian Banking Association (IBA) and Boston Consulting Group,

- It is a framework that was adopted by the finance ministry to strengthen public sector banks, and rank them on metrics such as responsible banking, financial inclusion, credit offtake and digitisation.

- The Index measures performance of each PSB on 140 objective metrics across 6 themes and provides all PSBs a comparative evaluation showing where banks stand vis-à-vis benchmarks and peers on the Reforms Agenda.

- The Index follows a fully transparent scoring methodology, which enables banks to identify precisely their strengths as well as areas for improvement.

Findings

- Punjab National Bank (PNB), the second-largest among state-run lenders, has topped the list of best-performing public sector banks in the country

- PNB is followed by Bank of Baroda, State Bank of India (SBI), and Oriental Bank of Commerce in that order.

6. Ensure a minimum income for all

There is high growth and GDP numbers that the nation is witnessing. But this is not transforming the development of individual and personal empowerment. Despite rapid economic growth millions of people remain unemployed and are extremely poor, in the last three decades.

- There are large groups of landless labourers, agricultural workers and marginal farmers who suffer from multi-dimensional poverty. These groups have not benefited from economic growth. They were and still are the poorest Indians. Various welfare schemes have also failed to bring them out of penury.

- Because people are getting poor, there is lack of basic amenities the idea of a universal basic income (UBI) is gaining currency globally

- It has supporters among the political left and right, and among proponents as well as opponents of the free-market economy.

Definition

- A UBI requires the government to pay every citizen a fixed amount of money on a regular basis and without any conditionality's.

Current context

- The National Democratic Alliance government has already unfolded a limited version of the UBI in the form of the Pradhanmantri Kisan Samman Nidhi Yojana (PM-KISAN) which promises ₹6,000 per annum to farmers who own less than 2 hectares of land.

- Therefore is it important to expand this to other sectors? Is the question of the hour

Why UBI is required?

1. Institutional credit

- According to National Sample Survey Office (NSSO) data from the 70th round, institutional credits account for
    * less than 15% of the total borrowing by landless agricultural workers;
    * The figure for marginal and small farmers is only 30%.

- These groups have to borrow from moneylenders and adhatiyas at exorbitant interest rates ranging from 24 to 60%.

- As a result, they do not stand to benefit much from the interest rate subsidy for the agriculture sector.

2. Likewise, the benefits of subsidized fertilizers and power are enjoyed largely by big farmers.

3. In urban areas, contract workers and those in the informal sector face a similar problem. The rapid pace of automation of low-skill jobs and formalisation of the retail sector mean the prospects of these groups are even bleaker.

Solutions

- An income support of, say, ₹15,000 per annum can be a good supplement to their livelihoods, it can reduce the incidence of indebtedness among marginal farmers, thereby helping them escape moneylenders and adhatiyas.
    * Besides, it can go a long way in helping the poor to make ends meet.
- Several studies have shown that income transfers to the poor will lead to improved health and educational outcomes, which in turn would lead to a more productive workforce.
- It seems to be a good idea to transfer the money into the bank accounts of women of the beneficiary households.
    * Women tend to spend more of their income on health and the education of children.

How to identify the poor?

- The Socio-Economic and Caste Census (SECC) 2011 can be used to identify the neediest. Groups suffering from multidimensional poverty such as the destitute, the shelter-less, manual scavengers, tribal groups, and former bonded labourers are automatically included.
    * It also includes many small farmers who face deprivation criteria such as families without any bread-earning adult member, and those without a pucca house.
- The other needy group, small farmers, missing from the SECC can be identified using the dataset from the Agriculture Census of 2015-16.
- Together, these two datasets can help identify the poorest Indians, especially in rural India.
- The Aadhaar identity can be used to rule out duplications and update the list of eligible households.

7. Erode's turmeric gets a GI tag

- The mean length of the fingers of Erode turmeric was about 4.15cm and the mean circumference was about 3.03cm.
- The mean bulb length is about 4.54cm and the mean circumference is 6.54cm.
- Quality parameters of the turmeric included 2.5 to 4.5% of curcumin content, a golden yellow colour and resistence to pests after boiling.

* The loamy red and black soil of the area is believed to be the reason behind the distinctive brilliant yellow colour, as well as its characteristic sweet taste and aroma

Turmeric facts

- India grows nearly 50 types of turmeric
- Turmeric is a labour and water intensive crop, so farmers grow it along with onions, tapioca and coconut or sugarcane
- India is the world's largest producer of turmeric (Curcuma longa), a perennial herbaceous plant of the ginger family.
- The plant's underground stems or rhizomes have been used as spice, dye, medicine and religious maker since antiquity.
- Tamil Nadu is the third largest grower of turmeric in the country (behind Telangana and Maharashtra), with 132.4 tonnes produced in 2015-16.

Significance

- The spice's colour comes mainly from curcumin, a bright yellow phenolic compound that has been in the news for its ostensible potential to fight cancer.
- As a result, the demand for turmeric with high curcumin content has risen, with pharmaceutical companies ready to pay high amount

8. Farm loan waivers kill credit culture, says Rajan

Context

- According to former RBI governor Raghuram Rajan India needs to focus on resolution of farm distress rather than loan waivers which kill the credit culture

Details

- Loan waivers cover only those farmers who have taken loans from the formal system.
- It only targeted to those farmers who have taken loans from the system, not the poorer farmers who have loans from the money lenders or an agricultural worker who never got a loan in the first place.

9. FinTech Conclave 2019

Context

- NITI Aayog is organising a day-long FinTech Conclave at Dr. Ambedkar International Center, New Delhi.

Objective of the conclave:

- The objective is to shape India's continued ascendancy in FinTech, build the narrative for future strategy and policy efforts, and to deliberate steps for comprehensive financial inclusion.
- The Conclave will be featuring representatives from across the financial space – central ministries, regulators, bankers, start-ups, service providers and entrepreneurs.

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- The Conclave looks into various dimensions of the future of the FinTech, particularly the areas of:
    * Digital Onboarding of Customers and Merchants for Financial Inclusion
    * Building Financial Products for Bharat
    * Emerging Areas of FinTech
    * Fast tracking investment in FinTech industry
    * Financial Inclusion of MSMEs

Background:

- India is one of the fastest growing FinTech markets globally and industry research has projected that USD 1 Trillion or 60% of retail and SME credit, will be digitally disbursed by 2029.
- The Indian FinTech ecosystem is the third largest in the globe, attracting nearly USD 6 billion in investments since 2014.
- The Indian FinTech industry is creating cutting edge intellectual property assets in advanced risk management and artificial intelligence that will propel India forward in the global digital economy while simultaneously enabling paperless access to finance for every Indian.

10. Hydroelectric policy

Context

- The Union Cabinet approved a new hydroelectric policy aimed at boosting the sector, including according large hydro projects the status of renewable energy projects.

What is Hydropower?

- It is power derived from the energy of falling water or fast running water
- Hydropower or hydroelectricity refers to the conversion of energy from flowing water into electricity.

Changes that Govt has introduced

- Earlier, hydro projects up to 25 MW capacity were considered as renewables. According to the new policy, large hydro projects will also be designated as renewable energy projects.
    * They were eligible for various incentives like financial assistance and cheaper credit.
    * With the government's decision, hydro projects above 25 MW can also avail the benefits.
- With the removal of this distinction, large hydro projects will be included as a separate category under the non-solar renewable purchase obligation policy.
- At present, hydro power tariff is expensive than other sources. These measure would help rationalise the tariff by hydro power projects.

- Also, large hydro projects (LHPs) would now be able to sell renewable energy certificates under non-solar Renewable Purchase Obligation (RPO) to discoms.
- The basic idea is to ramp up hydro because it provides grid stability which a renewable source like wind and solar do not. The key reasoning seems to be providing grid stability and a better energy mix

Stats

- According to the government, India has a hydro-power potential of 1,45,320 MW, of which only about 45,400 MW has been utilised so far.
- Only about 10,000 MW of hydro-power has been added in the last 10 years.
- The share of hydro-power in the total generation capacity has declined from 50.36% in the 1960s to around 13% in 2018-19

How the hydro policy has changed India's energy mix numbers

Installed Capacity	Before policy	After policy
Renewabe sources (in MW)	75,055.92	1,20,455.14
Renewable sources (% share in energy mix)	21.43	34.40

Share within renewables (in %)		
Source	Before policy	After policy
Hydro	6.03	41.45
Wind	47.02	29.30
Bio-power	12.28	7.65
Solar	34.68	21.61

11. IBBI, SEBI sign MoU for better implementation of IBC

Context

- The Insolvency and Bankruptcy Board of India (IBBI) signed a Memorandum of Understanding (MoU) with the Securities and Exchange Board of India (SEBI)

Details:

- The IBBI and the SEBI seek effective implementation of the Insolvency and Bankruptcy Code, 2016 (Code) and its allied rules and regulations, which have redefined the debt-equity relationship and aims to promote entrepreneurship and debt market.
- They have agreed under the MoU to assist and co-operate with each other for the effective implementation of the Code, subject to limitations imposed by the applicable laws.

The MoU provides for:

- Sharing of information between the two parties, subject to the limitations imposed by the applicable laws;
- Sharing of resources available with each other to the extent feasible and legally permissible;

- Periodic meetings to discuss matters of mutual interest, including regulatory requirements that impact each party's responsibilities, enforcement cases, research and data analysis, information technology and data sharing, or any other matter that the parties believe would be of interest to each other in fulfilling their respective statutory obligations;

- Cross-training of staff in order to enhance each party's understanding of the other's mission for effective utilisation of collective resources;

- Capacity building of insolvency professionals and financial creditors;

- Joint efforts towards enhancing the level of awareness among financial creditors about the importance and necessity of swift insolvency resolution process of various types of borrowers in distress under the provisions of the Code, etc

12. India Energy Modelling Forum (IEMF)

Context

- The NITI Aayog and the United States Agency for International Development (USAID) organized the first workshop on development of the India Energy Modelling Forum (IEMF), which has been envisaged as a pan-stakeholder platform for debating ideas, scenario-planning & discussing the India's energy future.

- It was being held with the support of the Pacific Northwest National Laboratory (PNNL), was organized under the Sustainable Growth Pillar of the India-U.S. Strategic Energy Partnership.

Details

- The Forum aims to improve cooperation and coordination between modeling teams, the Government of India, knowledge partners and think-tanks, build capacity of Indian institutions, and identify issues for joint modeling activities and future areas of research.

- The IEMF seeks to provide a platform for leading experts and policy makers to study important energy and environmental issues and ensure induction of modelling and analysis in informed decision making process.

13. 'India ranks 11th in gold holding'

- India, which is the world's largest consumer of gold, has the 11th largest gold reserve, with the current holding pegged at 607 tonnes, as per the latest report by the World Gold Council (WGC).

- India's overall position in terms of total gold holding would have been tenth had the list included only countries. Whereas, International Monetary Fund (IMF) is included and is third on the list with total gold reserves of 2,814 tonnes.

Gold cache

Rank	Possessor	Tonnes
1	U.S.	8,133.5
2	Germany	3,369.7
3	IMF	2,814.0
4	Italy	2,451.8
5	France	2,436.0
6	Russia	2,119.2
7	Mainland China	1,864.3
8	Switzerland	1,040.0
9	Japan	765.2
10	Netherlands	612.5
11	India	607.0
12	ECB	504.8
13	Taiwan	423.6
14	Portugal	382.5
15	Kazakhstan	353.3

SOURCE: WGC

- Among Asian countries, China and Japan have more reserves of the precious metal when compared to India.

- Meanwhile, countries like Taiwan, Portugal, Kazakhstan, Uzbekistan, Saudi Arabia, United Kingdom, Lebanon and Spain, along with the European Central Bank, complete the top 20 list of largest gold reserves.

14. Lima Group

- It is a multilateral body that was established following the Lima Declaration where representatives of 12 countries met in order to establish a peaceful exit to the crisis in Venezuela.

  * to address the critical situation in Venezuela and explore ways to contribute to the restoration of democracy in that country through a peaceful and negotiated solution

  * Argentina, Brazil, Canada, Chile, Colombia, Costa Rica, Guatemala, Honduras, Mexico, Panama, Paraguay and Peru

- Among other issues, the now 14-country group demands the release of political prisoners, calls for free elections, offers humanitarian aid and criticizes the breakdown of democratic order in Venezuela under the Bolivarian Government of Venezuela.

15. Mobility Solutions get a boost

Context:

- National Mission on Transformative Mobility and Battery Storage was approved by Cabinet Mission to promote Clean, Connected, Shared and Holistic Mobility Initiatives Phased Manufacturing Programmes to be launched for batteries and electric vehicle components.

Details:

The Union Cabinet chaired by Prime Minister has approved:

- Setting up of a National Mission on Transformative Mobility and Battery Storage, to drive clean, connected, shared, sustainable and holistic mobility initiatives;
- Phased Manufacturing Programme (PMP) valid for 5 years till 2024 to support setting up of a few large-scale, export-competitive integrated batteries and cell-manufacturing Giga plants in India.
- Creation of a PMP valid for 5 years till 2024 to localize production across the entire Electric Vehicles value chain

About National Mission on Transformative Mobility and Storage:

Composition:

- The multi-disciplinary "National Mission on Transformative Mobility and Battery Storage" with an Inter-Ministerial Steering Committee will be chaired by CEO NITI Aayog.
- The Steering Committee will be comprised of Secretaries from Ministry of Road Transport and Highways, Ministry of Power, Ministry of New and Renewable Energy, Department of Science and Technology, Department of Heavy Industry, Department for Promotion of Industry and Internal Trade, and Director General, Bureau of Industrial Standards.

Role:

- The Mission will recommend and drive the strategies for transformative mobility and Phased Manufacturing Programmes for EVs, EV Components and Batteries.
- A Phased Manufacturing Program (PMP) will be launched to localize production across the entire EV value chain. The National Mission on Transformative Mobility and Battery Storage will determine the contours of PMP, and will finalise the details of such a program.
- The details of the value addition that can be achieved with each phase of localisation will be finalised by the Mission with a clear Make in India strategy for the electric vehicle components as well as battery.
- The Mission will coordinate with key stakeholders in Ministries/ Departments and the states to integrate various initiatives to transform mobility in India.

Impact:

- The Mission will drive mobility solutions that will bring in significant benefits to the industry, economy and country.
- These solutions will help improve air quality in cities along with reducing India's oil import dependence and enhance the uptake of renewable energy and storage solutions.
- The Mission will lay down the strategy and roadmap which will enable India to leverage upon its size and scale to develop a competitive domestic manufacturing ecosystem for electric mobility.
- The actions in this regard will benefit all citizens as the aim is to promote 'Ease of Living' and enhance the quality of life of our citizens and also provide employment opportunities through 'Make-in-India' across a range of skillsets.

16. National guidelines on responsible business conduct

Context:

- Ministry of Corporate Affairs has revised the National Voluntary Guidelines on Social, Environmental and Economic Responsibilities of Business, 2011 (NVGs) and formulated the National Guidelines on Responsible Business Conduct (NGRBC).

Details:

Key drivers for revision of the NVG guidelines are:

- The NVGs 2011 were developed based on India's socio-cultural context and priorities as well as global best practices.
- There have been various national and international developments in the past decade that have nudged businesses to be sustainable and more responsible, prior most being the United Nations Guiding Principles on Business & Human Rights (UNGPs).
- The thrust of Companies Act, 2013 (Act) on businesses to be more mindful of their stakeholders.
- And to demonstrate more visibly India's implementation of the UNGPs based on UNHRC's 'Protect, Respect & Remedy' Framework and also make evident India's commitment to Sustainable Development Goals (SDGs)
- The Ministry of Corporate Affairs is also in the process of developing India's National Action Plan on Business & Human Rights (NAP) in consultation with various Ministries and State Governments by 2020.

NGBRC principles are:

- Businesses should conduct and govern themselves with integrity in a manner that is Ethical, Transparent and Accountable.
- Businesses should provide goods and services in a manner that is sustainable and safe

- Businesses should respect and promote the well-being of all employees, including those in their value chains.

- Businesses should respect the interests of and be responsive to all their stakeholders.

- Businesses should respect and promote human rights.

- Businesses should respect and make efforts to protect and restore the environment.

- Businesses, when engaging in influencing public and regulatory policy, should do so in a manner that is responsible and transparent.

- Businesses should promote inclusive growth and equitable development.

- Businesses should engage with and provide value to their consumers in a responsible manner.

17. National Mineral Policy 2019

- It replaces the existing National Mineral Policy 2008

- The New National Mineral Policy will ensure more effective regulation. It will lead to sustainable mining sector development in future while addressing the issues of project affected persons especially those residing in tribal areas

- The aim of National Mineral Policy 2019 is to have a more effective, meaningful and implementable policy that brings in further transparency, better regulation and enforcement, balanced social and economic growth as well as sustainable mining practices.

Changes introduced in the National Mineral Policy, 2019

- The focus on make in India initiative and Gender sensitivity in terms of the vision.

- In so far as the regulation in Minerals is concerned, E-Governance, IT enabled systems, awareness and Information campaigns have been incorporated.

- Regarding the role of state in mineral development online public portal with provision for generating triggers at higher level in the event of delay of clearances has been put in place.

- NMP 2019 aims to attract private investment through incentives while the efforts would be made to maintain a database of mineral resources and tenements under mining tenement systems.

- The new policy focusses on use coastal waterways and inland shipping for evacuation and transportation of minerals and encourages dedicated mineral corridors to facilitate the transportation of minerals.

- The utilization of the district mineral fund for equitable development of project affected persons and areas.

- NMP 2019 proposes a long term export import policy for the mineral sector to provide stability and as an incentive for investing in large scale commercial mining activity.

18. National Policy on Software Products 2019

Context

- The Union Cabinet has approved the National Policy on Software Products 2019 to develop India as a Software Product Nation.

Details

- The Policy aims to align with other Government initiatives such as Start-up India, Make in India and Digital India, Skill India etc so as to create Indian Software products Industry of USD 70-80 billion with direct & indirect employment of 3.5 million by 2025.

- One of the key missions of the policy is to nurture 10,000 technology startups in software product industry, including 1,000 such technology startups in Tier-II and Tier-III towns & cities and generating direct and in-direct employment for 3.5 million people by 2025

- To promote the creation of a sustainable Indian software product industry, driven by intellectual property (IP), leading to a ten-fold increase in India share of the Global Software product market by 2025.

- To create a talent pool for software product industry through

  * up-skilling of 1,000,000 IT professionals,

  * motivating 100,000 school and college students and

  * Generating 10,000 specialized professionals that can provide leadership.

- To build a cluster-based innovation driven ecosystem by developing 20 sectoral and strategically located software product development clusters having integrated ICT infrastructure, marketing, incubation, R&D/testbeds and mentoring support.

Funding

- Initially, an outlay of Rs 1500 Crore is involved to implement the programmes/ schemes envisaged under this policy over the period of 7 years. Rs 1500 Crore is divided into Software Product Development Fund (SPDF) and Research & Innovation fund.

19. Nice Agreement, Vienna Agreement, Locarno Agreement

- The Nice Agreement establishes a classification of goods and services for the purposes of registering trademarks and service marks

- The Vienna Agreement establishing an International Classification of the figurative elements of marks

- The Locarno Agreement establishes a classification for industrial designs

Significance

- Accession to the Nice, Vienna and Locarno Agreements will help the Intellectual Property Office in India to harmonise the classification systems for examinational of trademark and design applications, in line with the classification systems followed globally.

- It would give an opportunity to include Indian designs, figurative elements and goods in the international classification systems.

- The accession is expected to instill confidence in foreign investors in relation to protection of IPs in India.

- The accession would also facilitate in exercising rights in decision making processes regarding review and revision of the classifications under the agreement.

20. Only 3.32 lakh MSME jobs created in 4 years

Context

- According to a CII survey of more than one lakh companies, the number of net jobs created in the Micro, Small and Medium Enterprises (MSME) sector in the last four years stood at just 3,32,394, which is 13.9% higher than the base four years ago

    * "'Net jobs created' is defined as recruitment, less exits

- The findings for the four-year period — beginning 2015-16 — pale in comparison with that from the government's Ministry of Micro, Small & Medium Enterprises for an earlier period, which shows 11,54,293 MSME jobs were created in the three years ended 2014-15.

Enterprises

- According to the survey, Micro Enterprises were the largest job generators, having created 2,40,713 jobs or 73% of the net jobs created in the last four years.

- Small Enterprises, on the other hand, accounted for 23% of the net jobs created,

- Medium Enterprises accounted for just 4%.

Sectoral break-up

- Hospitality & tourism sector accounted for 12% of the jobs

- Textiles & apparels and metal products sectors each contributed about 8% to job creation.

- Machinery parts (7%)

- Transport & logistics (7%)

State Ranking

- The concentration in terms of geographic dispersion of jobs created was also noticeable, with three States — Maharashtra (29%), Gujarat (14%) and Telangana (10%) — accounting for 54% of the jobs created in the last four years

21. Pradhan Mantri JI-VAN yojana

Context

- The Cabinet Committee on Economic Affairs, chaired by Prime Minister Narendra Modi has approved the "Pradhan Mantri JI-VAN (Jaiv Indhan- Vatavaran Anukool fasal awashesh Nivaran) Yojana" for providing financial support to Integrated Bioethanol Projects using lignocellulosic biomass and other renewable feedstock.

- Centre for High Technology (CHT), a technical body under the aegis of MoP&NG, will be the implementation Agency for the scheme.

Details

- Under this Yojana, 12 Commercial Scale and 10 demonstration scale Second Generation (2G) ethanol Projects will be provided a Viability Gap Funding (VGF) support in two phases:

    * Phase-I (2018-19 to 2022-23): wherein six commercial projects and five demonstration projects will be supported.

    * Phase-II (2020-21 to 2023-24): wherein remaining six commercial projects and five demonstration projects will be supported.

- The scheme focuses to incentivise 2G Ethanol sector and support this nascent industry by creating a suitable ecosystem for setting up commercial projects and increasing Research & Development in this area.

The scheme will have the following benefits:

- Meeting Government of India vision of reducing import dependence by way of substituting fossil fuels with Biofuels.

- Achieving the GHG emissions reduction targets through progressive blending/ substitution of fossil fuels.

- Addressing environment concerns caused due to burning of biomass/ crop residues & improve health of citizens.

- Improving farmer income by providing them remunerative income for their otherwise waste agriculture residues.

- Creating rural & urban employment opportunities in 2G Ethanol projects and Biomass supply chain.

- Contributing to Swacch Bharat Mission by supporting the aggregation of nonfood biofuel feedstocks such as waste biomass and urban waste.

- Indigenizing of Second Generation Biomass to Ethanol technologies.

Funding

- The JI-VAN Yojana will be supported with total financial outlay of Rs 1969.50 crore for the period from 2018-19 to 2023-24.

- Out of scheme fund of Rs 1969.50 crore, Rs 1800 crore has been allocated for supporting 12 Commercial projects, Rs 150 crore has been allocated for supporting 10 demonstration Projects and remaining Rs 9.50 crore will be provided to Centre for High Technology (CHT) as administrative charges.

22. Public Disclosure Norm

Context

- The Insurance Regulatory and Development Authority of India (IRDAI) issued an exposure draft detailing the proposed norms requiring all general insurers, health insurers, specialized insurers and reinsurers, including branches of foreign reinsurers, to share information at specified intervals about their financials and performance.

Details

- The norms require the insurers to share information about revenue, profit and loss account and balance sheet, as well as provide segmental reporting and schedules to accounts.
- One of the objectives of the norms was to ensure safety of policyholders according to international norms.
  - * The International Association of Insurance Supervisors had recognised that the insurers had an equal, if not, greater responsibility towards the policyholders than their duty towards investors.
  - * This is because when insurers become insolvent, loss to policyholders is much more than that to investors. Public disclosures on the risks faced by the insurers provide information to the policyholders to make informed decisions before entering into an insurance contract
- Besides safety of policyholders, other objectives behind the proposed disclosure norm are to serve as a tool to assess risk exposure of an insurer; educate investors on company's financial performance, financial position, risk exposure, corporate governance and management; measure orderly growth of the insurance sector; and have uniformity in the performance indicators.

Significance

- Public disclosure of risks faced by the insurers is critical for ensuring a fair and orderly insurance sector. They provide necessary feedback to the investors, policyholders and the general public

23. Quality Assurance Scheme for Basic Composite Medical Laboratories

Context:

- For sensitizing small laboratories to basic doable quality practices, NABL has launched another voluntary scheme called Quality Assurance Scheme (QAS) for Basic Composite (BC) Medical Laboratories (Entry Level) .

Who are eligible?

- The laboratories performing only basic routine tests like blood glucose, blood counts, rapid tests for common infections, liver & kidney function tests and routine tests of urine will be eligible to apply under this scheme.

Details about scheme:

- The scheme will help to bring quality at the grass root level of India's health system where laboratories follow the imperatives of quality in all their processes.
- This will inculcate the habit of quality and facilitate the laboratories to achieve benchmark accreditation of ISO 15189 over a period of time.
- The laboratories may upgrade to accreditation as per ISO 15189 at any point of time. Successful laboratories will be issued a certificate of compliance to QAS BC scheme by NABL and they will be allowed to use a distinct symbol on the test reports as a mark of endorsement to the basic standard for a defined time frame before which they will have to transition to full accreditation as per ISO 15189.

About NABL:

- The National Accreditation Board for Testing and Calibration Laboratories (NABL) undertakes the assessment and accreditation of Testing and Calibration Laboratories, in accordance with the international standard ISO / IEC 17025 and ISO 15189.
- It is a constituent board of Quality Council of India (QCI) under the Ministry of Commerce and Industry, Government of India.

24. RBI governor Shaktikanta Das bats for permanent status to Finance Commission

- According to the RBI governor, finance commissions have over the past several decades adopted different approaches with regard to principles of tax devolution, grants to be given to states and fiscal consolidation issues.
- He feels at one level, there has to be a framework for fresh and innovative thinking by every finance commission, at another, there is a need to ensure broad consistency between finance commissions so that there is some degree of certainty in the flow of funds, especially to the states.
- During the intervening period, it can also address issues arising from implementation of the recommendations of the finance commission.

Let Finance Commision function the way it does now

- According to former Reserve Bank Governor Y.V. Reddy, the Finance Commission should be allowed to function in the same manner as it is doing currently.

- "Currently, the Finance Commission has a five-year term. The system of appointing a Finance Commission once in five years is fine. Let it continue. The way forward is to stick to the old approach.... New approach is not warranted. What is warranted is to behave more faithfully, with honesty and integrity,"

The proposal for making the Finance Commission a permanent body could evolve in two ways:

- First, the government would abdicate its discretion currently available in designing and implementing the specific purpose transfers.
- Second, it would dilute the neutrality of the Finance Commission between the Union and the States through a process of continuous association with the government.

So in his view, there was considerable merit in having one apolitical body that provided stability and predictability primarily to share taxes that ensured fiscal balance and another forum of transfers involving continuous political bargaining with a broader mandate.

25. RBI to inject liquidity via forex swaps

Context

- The Reserve Bank of India (RBI) has decided to inject rupee liquidity into the system through long-term foreign exchange buy/sell swap — a first-of-its-kind instrument used for liquidity management.

Details

- The swap is in the nature of a simple Buy/Sell foreign exchange swap with the RBI.
- Reserve Bank of India is using a new tool to enhance liquidity in the system through which it would buy as much as $5 billion from the banks in a swap deal that could inject nearly 35,000 crores into the system.
  * Banks would be required to park dollar funds with RBI with a deal to buy it back from the RBI after three years.
- A similar kind of swap was used in 2013 for banks to swap their dollars received in the FCNR (B) scheme but that was at a fixed rate.
- This scheme is through an auction and is open to all banks which want to swap their dollars for rupees.
- Minimum bid size for the auction is set at $25 million and banks will be allowed to submit multiple bids. However, the aggregate amount of bids submitted by single eligible entity should not exceed the notified amount of auction.

Significance

- According to bankers, the move is seen to lower the dependence on open market operations which have been a significant amount of the overall borrowing.
  * Higher OMOs can distort the rates curve
- The move would boost RBI's foreign exchange reserves

- It is likely to boost investments by foreign portfolio investors under the Voluntary Retention Route (VRR).

Voluntary Retention Route (VRR)

- It is a new channel of investment available to FPIs to encourage them to invest in debt markets in India over and above their investments through the regular route.
- The objective is to attract long-term and stable FPI investments into debt markets while providing FPIs with operational flexibility to manage their investments.
  * The VRR for investments by foreign portfolio investors (FPIs) is subject to a minimum retention period of three years from the date of allotment.
  * During this period, FPIs shall maintain a minimum of 75% of the allocated amount in India
- It is nvestments under VRR (by all FPIs taken together) are capped at ₹40,000 crore for government securities and ₹35,000 crore for corporate debt securities.
- Participation through this Route will be entirely voluntary
- Any entity registered as an FPI with SEBI is eligible to participate through this Route.

How are they different from the regular FPI investments?

- Guidelines say that investments through VRR will be free of the macro-prudential and other regulatory prescriptions applicable to FPI investments in debt markets, provided FPIs voluntarily commit to retain a required minimum percentage of their investments in India for a period of their choice.
- But the minimum retention period shall be three years, or as decided by RBI.

26. Regulatory Sandbox

- It is a framework set up by a regulator that allows FinTech startups to conduct live experiments in a controlled environment under supervision.

Significance

- A Regulatory Sandbox' would benefit FinTech companies by way of reduced time to launch innovative products at a lower cost
- A regulatory sandbox is a controlled mechanism within which the sector will be able to experiment with solutions in a closely-monitored ecosystem so that the risks do not spread outside it, and the reasons for failure can be analysed.

Context

- The Reserve Bank of India will, in the next two months, release the guidelines for the creation of a 'regulatory sandbox' for the fintech sector

27. Resolution, at last (Insolvency and Bankruptcy Code (IBC)

The Insolvency and Bankruptcy Code, 2016

What does the Code aim to do?

- The 2016 Code provides for a time-bound process to resolve insolvency.

- When a default in repayment occurs, creditors gain control over debtor's assets and must take decisions to resolve insolvency within a 180-day period.

- To ensure an uninterrupted resolution process, the Code also provides immunity to debtors from resolution claims of creditors during this period. The Code also consolidates provisions of the current legislative framework to form a common forum for debtors and creditors of all classes to resolve insolvency.

Who facilitates the insolvency resolution under the Code?

- The Insolvency Professionals: A specialised cadre of licensed professionals is proposed to be created. These professionals will administer the resolution process, manage the assets of the debtor, and provide information for creditors to assist them in decision making.

- Insolvency Professional Agencies: The insolvency professionals will be registered with insolvency professional agencies. The agencies conduct examinations to certify the insolvency professionals and enforce a code of conduct for their performance.

- Information Utilities: Creditors will report financial information of the debt owed to them by the debtor. Such information will include records of debt, liabilities and defaults.

- Adjudicating authorities: The proceedings of the resolution process will be adjudicated by the National Companies Law Tribunal (NCLT), for companies; and the Debt Recovery Tribunal (DRT), for individuals. The duties of the authorities will include approval to initiate the resolution process, appoint the insolvency professional, and approve the final decision of creditors.

- Insolvency and Bankruptcy Board: The Board will regulate insolvency professionals, insolvency professional agencies and information utilities set up under the Code. The Board will consist of representatives of Reserve Bank of India, and the Ministries of Finance, Corporate Affairs and Law.

What is the procedure to resolve insolvency in the Code?

The Code proposes the following steps to resolve insolvency:

1. Initiation:

- The When a default occurs, the resolution process may be initiated by the debtor or creditor. The insolvency professional administers the process. The professional provides financial information of the debtor from the information utilities to the creditor and manage the debtor's assets. This process lasts for 180 days and any legal action against the debtor is prohibited during this period.

2. Decision to resolve insolvency:

- A committee consisting of the financial creditors who lent money to the debtor will be formed by the insolvency professional.

- The creditors committee will take a decision regarding the future of the outstanding debt owed to them. They may choose to revive the debt owed to them by changing the repayment schedule, or sell (liquidate) the assets of the debtor to repay the debts owed to them. If a decision is not taken in 180 days, the debtor's assets go into liquidation.

3. Liquidation:

- If the debtor goes into liquidation, an insolvency professional administers the liquidation process.

- Proceeds from the sale of the debtor's assets are distributed in the following order of precedence: i) insolvency resolution costs, including the remuneration to the insolvency professional, ii) secured creditors, whose loans are backed by collateral, dues to workers, other employees, iii) unsecured creditors, iv) dues to government, v) priority shareholders and vi) equity shareholders.

The Insolvency and Bankruptcy Code (Amendment) Ordinance, 2018

Highlights of the Ordinance:

- The Ordinance amends the Insolvency and Bankruptcy Code, 2016 to clarify that allottees under a real estate project should be treated as financial creditors.

- The voting threshold for routine decisions taken by the committee of creditors has been reduced from 75% to 51%. For certain key decisions, this threshold has been reduced to 66%.

- The Ordinance allows the withdrawal of a resolution application submitted to the NCLT under the Code. This decision can be taken with the approval of 90% of the committee of creditors.

Key Features:

Status of allottees

- The Code defines a financial creditor as anyone who has extended any kind of loan or financial credit to the debtor. The Ordinance clarifies that an allottee under a real estate project (a buyer of an under-construction residential or commercial property) will be considered as a financial creditor, as the amount raised from allottees for financing a real estate project has the commercial effect of a borrowing.

Representative of financial creditors:

- During the insolvency resolution process, a committee consisting of financial creditors will be constituted for taking decisions (by voting) on the resolution process. The Ordinance specifies that, in certain cases, such as when the debt is owed to a class of creditors, the financial creditors will be represented on the committee of creditors by an authorised representative. These representatives will vote on behalf of the financial creditors as per the prior instructions received from them.

Voting threshold of committee of creditors:

- The voting threshold for decisions of the committee of creditors has been lowered from 75% to 51%. For certain key decisions of the committee, the threshold has been reduced from 75% to 66%. These include: (i) appointment of the resolution professional, (ii) approval of the resolution plan, and (iii) increasing the time limit for the insolvency resolution process.

Ineligibility to be a resolution applicant:

- The Ordinance amends the criteria which prohibits certain persons from submitting a resolution plan. For example, the Code prohibits a person from being a resolution applicant if his account has been identified as a non-performing asset (NPA) for more than a year.
- The Ordinance provides that this criterion will not apply if such applicant is a financial entity, and is not a related party to the debtor (with certain exceptions).
- Secondly, the Code also bars a guarantor of a defaulter from being an applicant.
- The Ordinance specifies that such a bar will apply if such guarantee has been invoked by the creditor and remains unpaid.

Applicability of the Code to Micro, Small, and Medium Enterprises (MSMEs):

- The Ordinance states that the ineligibility criteria for resolution applicants regarding NPAs and guarantors will not be applicable to persons applying for resolution of MSMEs.
- The central government may, in public interest, modify or remove other provisions of the Code while applying them to MSMEs.

Withdrawal of submitted applications:

- A resolution applicant may withdraw a resolution application, from the National Company Law Tribunal (NCLT), after such process has been initiated.
- Such withdrawal will have to be approved by a 90% vote of the committee of creditors.

Classification of allottees under a real estate project as financial creditors:

With regard to corporate debtors, the Code defines two types of creditors:

- financial creditors, who have extended a loan or financial credit to the debtor, and (ii) operational creditors, who have provided goods or services to the debtor, the payment for which is due.
- Financial creditors could be secured or unsecured. Secured creditors are those whose loans are backed by collateral (security).
  - * For example, person A decides to open a restaurant. He takes a loan from a bank to buy the property for the restaurant, using the property premises as the collateral. His friend B lends him some funds to manage the initial expenses, such as payment of salary to chefs and other support staff, buying produce, etc. In this example, the bank and friend B are financial creditors. The bank is a secured financial creditor since the loan is backed by a collateral (the restaurant premises), and friend B is an unsecured creditor. The chefs and staff at the restaurant are operational creditors. The supplier of produce is also an operational creditor.
  - * The Ordinance clarifies that allottees under a real estate project will be considered as financial creditors.
  - * This would give the allottees: (i) the power to initiate a resolution process, (ii) representation on the committee of creditors, and (iii) the guarantee of receiving a certain amount in case of liquidation.

Editorial Analysis:

- The National Company Law Tribunal's approval of ArcelorMittal's bid for the insolvent Essar Steel Ltd. is significant for several reasons.

Reasons for the significance:

- Firstly, the ₹42,000-crore bid will be the largest single recovery of debt under the fledgling Insolvency and Bankruptcy Code (IBC) enacted in 2016.
  - * Assuming that the original resolution plan submitted to the NCLT stands, the secured lenders will manage to recover about 85% of their dues.
  - * The 15% haircut that they will suffer should be seen against the extraordinarily high amount of over ₹49,000 crore that is due from Essar Steel.

- Secondly, the case, which took 583 days to resolve, compared to the 270 days provided under the Code, has tested several aspects of the law and set important precedents for the future.

  * Among the aspects that have been clarified during the long resolution process for Essar Steel are the eligibility of those who have defaulted in repaying their borrowings elsewhere to bid, the time-limits for bidding and the place of unsecured, operational creditors under the resolution mechanism.

- Finally, this was seen as a marquee case for the IBC, given the high profile of the company and its promoters, and the amount at stake.

In the event, the successful culmination of the Essar Steel case will be a big leg-up for the insolvency resolution process that is less than three years old.

A Look at Specifics:

- Experts opine that though the NCLT has given the go-ahead, the last word on the subject may not have been heard as the existing promoters could go in appeal against the verdict.

- The Code provides for an appeal to the National Company Law Appellate Tribunal and then to the Supreme Court, and it is unlikely that the promoters, who bid a much higher ₹54,389 crore, will let go without a fight.

- The banks, though, will be hoping that the process ends in the next couple of weeks as they would want to account for the receipts from the resolution process within this financial year (2018-2019)

- After all, only four cases (excluding Essar Steel) out of the initial list of 12 big defaulters referred by the Reserve Bank of India for resolution back in June 2017 have been successfully resolved till now.

- Insolvency and Bankruptcy Board of India data also point to a pile-up of cases in the various benches of the NCLT.

Concluding Remarks:

- As many as 275 companies, representing 30% of the total of 898 undergoing resolution, have exceeded the 270-day limit set for resolution under the Code.

- This can be partly explained by the attempt of promoters to tie down the process through appeals at every stage, but the fact is that there is a need for more benches of the NCLT to clear the pile-up.

- The government would do well to look into this issue.

28. Rooftop Solar Programme

Context

- The Cabinet Committee on Economic Affairs approved phase 2 of the grid-connected rooftop solar programme, with a focus on the residential sector.

- India has set an ambitious target of achieving 40 GW of rooftop solar capacity by 2022.

Details

- The Phase-II Programme provides Central Financial Assistance for the residential sector and for Group Housing Societies/Residential Welfare Associations (GHS/RAW)

  * The Central Financial Assistance (CFA) been restructured with availability of 40% CFA for RTS systems up to 3 kW capacity and 20% for RTS system capacity beyond 3 kW and up to 10 kW.

  * For GHS/RAW, CFA will be limited to 20% for RTS plants for supply of power to common facilities, however, the capacity eligible for CFA for GHS/RAW will be limited to 10 kW per house with maximum total capacity upto 500 kWp, inclusive of RTS put in individual houses in the GHS/RWA.

- Central financial support will not be available for other category i.e., institutional, educational, social, government, commercial, industrial, etc.

- The second phase will also focus on increasing the involvement of the distribution companies (DISCOM).

Implementation

- DISCOMs and its local offices shall be the nodal points for implementation of the programme.

  * Since, DISCOMs are required to incur additional expenditure for implementation of scheme in terms of additional man-power, creating infrastructure, capacity building, awareness, etc.

  * It is approved to compensate them by providing performance linked incentives.

- These incentives will be provided to enable DISCOMs to create an enabling ecosystem for expeditious implementation of Roof Top Solar (RTS) programme in their area.

- Performance based incentives will be provided to DISCOMs based on RTS capacity achieved in a financial year (i.e. 1st April to 31st March every year till the duration of the scheme) over and above the base capacity i.e. cumulative capacity achieved at the end of previous financial year.

Significance

- The Programmes will have substantial environmental impact in terms of savings of CO2 emission.

- The programme has directed employment potential.

Issue Area

- There has been progress on rooftop solar installations among industries and commercial consumers, the uptake among residential consumers has been slow.

  * According to a 2018 study by the World Resources Institute in five cities — Bengaluru, Chandigarh, Chennai, Jaipur and Nagpur Urban residential electricity consumers are still hesitant to consider rooftop solar power for their homes. This is because they don't have enough information about it.

- For residential urban consumers, one of the key barriers to installing rooftop solar systems is that they do not know who to contact to understand the processes to be followed and permissions required.

- There is no single source to access information, evaluate benefits and disadvantages, and examine if any government support (such as a financial subsidy) is available.

- Most of the technical information provided by various sources, including the government, tends to be Internet-based. The study shows that less than 20% of respondents rely on the Internet to make a decision concerning rooftop solar systems.

  * A significant majority of consumers seek face-to-face discussions and recommendations from friends and family.

Measures to be taken

- Devising simple, well-designed and creative ways to disseminate information is important to help consumers make informed decisions.

  * Information must be made easily available to the consumers on the amount of shadow-free roof area needed for generating a unit of electricity and pricing; operating the system, after-sales maintenance and support; and reliable rooftop solar vendors.

- The local electricity linesmen, electricity inspectors, and other nodal officials in the electricity department also have key roles to play.

  * Building their capacities to disseminate such information and handle consumer queries and concerns, and providing basic training in billing and metering for solar power can go a long way in improving consumers' experience.

- Objective information must be put out through various avenues, so that it is accessible to all segments of the population and in local languages. Such awareness drives will reach larger audiences.

- Information kiosks can be set up in public institutions like banks to offer information on the technology, as well as on practical issues such as guidance on selecting vendors.

- A robust feedback mechanism can be put in place for consumers to share their experiences with others.

Lessons to learn

- Consumer rights groups, rooftop solar system vendors, and Resident Welfare Associations (RWAs) in larger cities are beginning to organise campaigns and workshops to generate awareness and create a dialogue with consumers.

  * Since the market for residential rooftop solar power is nascent, there are opportunities to learn from more mature consumer durable markets.

  * For example, RWAs can tie up with vendors to organise demonstration programmes, so that consumers can observe, operate and understand how the system works.

- Consumer groups and development organisations have a significant role in systematically following key policies and institutional procedures and ensuring that consumers' concerns in accessing reliable information are addressed.

- Raising awareness and building consumer capacity to engage with the sector are crucial for ensuring access to affordable, reliable, sustainable and modern energy for all and for India to achieve its rooftop solar targets.

29. Scheme for Higher Education Youth in Apprenticeship and Skills (SHREYAS)

- This will provide industry apprenticeship opportunities to the general graduates exiting in April 2019 through the National Apprenticeship Promotional Scheme (NAPS).

- The program aims to enhance the employability of Indian youth by providing 'on the job work exposure' and earning of stipend.

- SHREYAS is a programme conceived for students in degree courses, primarily non-technical, with a view to introduce employable skills into their learning, promote apprenticeship as integral to education and also amalgamate employment facilitating efforts of the Government into the education system so that clear pathways towards employment opportunities are available to students during and after their graduation.

- SHREYAS is a programme basket comprising the initiatives of three Central Ministries, namely the Ministry of Human Resource Development, Ministry of Skill Development & Entrepreneurship and the Ministry of Labour& Employment viz the National Apprenticeship Promotion Scheme (NAPS), the National Career Service (NCS)and introduction of BA/BSc/BCom (Professional) courses in the higher educational institutions.

Objectives

- To improve employability of students by introducing employment relevance into the learning process of the higher education system

- To forge a close functional link between education and industry/service sectors on a sustainable basis

- To provide skills which are in demand, to the students in a dynamic manner

- To establish an 'earn while you learn' system into higher education

- To help business/industry in securing good quality manpower

- To link student community with employment facilitating efforts of the Government

Target

- In all the tracks together, it is proposed to cover 50 lakh students by 2022.

Operation of the Scheme

- The primary scheme will be operated in conjunction with National Apprenticeship Promotion Scheme (NAPS) which provides for placing of apprentices upto 10% of the total work force in every business/industry.

- The scheme will be implemented by the Sector Skill Councils (SSCs) , initially the Banking Finance Insurance Services (BFSI), Retail, Health care, Telecom, Logistics, Media, Management services, ITeS and Apparel.

- More sectors would be added over time with emerging apprenticeship demand and curriculum adjustments.

30. Shahpurkandi Dam Project

- The Shahpurkandi Dam project is located on the Ravi River in Pathankot district, Punjab, India.

- The project will be constructed downstream of the existing Ranjit Sagar Dam

Background

- The genesis of the Shahpur Kandi project can be traced to a 1979 agreement between Chief Ministers Parkash Singh Badal and Sheikh Abdullah of Punjab and J&K respectively, for the Ranjit Sagar (Thein) Dam, to be built on the Ravi on the border of the two states.

- To optimise the utilisation of the water, a second dam was to come up at some distance downstream, at Shahpur Kandi in Punjab's Gurdaspur district.

- Prime Minister Indira Gandhi laid the foundation of the Ranjit Sagar dam in 1982 and the project was completed in 1998; it, however, took until 2008 for the central government to declare Shahpur Kandi as a "national project".

Significance

- Shahpur Kandi project will provide a balancing reservoir to enable the upstream Ranjit Sagar Dam project to act as a peaking station, besides having its own generation capacity of 206 MW and irrigating 37,173 hectares of cultivable command area in Punjab and J&K

- The flow of water from the Shahpur Kandi dam would be regulated to utilise the entire water for fields in Punjab and J&K through UBDC system and the J&K canal from the Madhopur Headworks in Pathankot.

31. Sirsi Supari

Context

- For the first time in the arecanut sector, 'Sirsi Supari' grown in Uttara Kannada has received the Geographic Indication (GI) tag.

Details

- It is cultivated in Yellapura, Siddapura and Sirsi taluks.

- Totgars' Cooperative Sale Society Ltd., Sirsi, is the registered proprietor of the GI.

Uniqueness

- The arecanut grown in these taluks have unique features like a round and flattened coin shape, particular texture, size, cross-sectional views, taste, etc.

- This particular variety has a unique taste due to differences in chemical composition.

- The total average flavonoids content in it is around 90 whereas in others it is around 80.

- These features are not seen in arecanut grown in any other regions. Its average dry weight is 7.5 g and average thickness is 16 mm.

- 'Sirsi Supari' is used both as 'chali' (white arecanut) and red arecanut.

  * The 'chali' variety is made by peeling the ripened nuts and sun drying them later.

  * The red arecanut is produced by harvesting the tender nuts, then boiling and colouring them, then making them into different grades and finally sun drying them.

32. Standards & Labelling (Star Rating) program

Context:

- Ministry of Power, Government of India expanded its ambitious Standards & Labelling (Star Rating) program for Energy Efficient for Appliances to cover the Microwave Ovens and Washing Machines (with revised parameters) in the country.

Details:

- The Star Labelling Programs has been formulated by Bureau of Energy Efficiency.

- The program will now include these two appliances for grant of Star Rating in terms of their energy performance.

- There has been a revision in the criteria for inclusion of water efficiency in addition to energy performance for grant of Star Rating for washing machines.

- Savings of over 3.0 Billion Units of electricity at consume-end through adoption of Star Rated Microwave Ovens and Washing Machines by 2030 has been estimated. That would be equivalent to Green House Gases (GHG) reduction of 2.4 Million-ton of CO_2 by the year 2030 through these initiatives.

How does the program help?

- The Standards & Labelling (Star Rating) program will create awareness amongst the domestic consumers to encourage transition towards energy efficient microwave ovens and Washing machines.

33. The problem is jobs, not wages

What's in the news?

- Multiple surveys point to a massive employment crisis in the country, yet the government steadfastly refuses to even acknowledge this issue, let alone address it.

- India is not unique in experiencing rising unemployment rates and, consequently, income inequality. Many developed and developing nations are grappling with this problem, too.

- Such a crisis requires acknowledgement of the issue first, then a vibrant public debate on solutions to tackle the crisis, and finally, a coordinated implementation of ideas.

- Instead, the govt. has failed to acknowledge the existence of a jobs crisis and neither is it looking to provide the diagnosis to it.

Understanding demand and supply in the job market

- There is this notion that India does not have a jobs crisis but a wages crisis. But what determines wages for an employee is the demand for such skills versus the supply of such skills.

- Wages are not determined by some external factor that is removed from labour market conditions. It is entirely a function of the labour market.

- If demand is higher than supply, wages automatically rise; if not, they remain stagnant. To understand the unemployment issue as a wages problem shows ignorance.

'Two-sector economy' identified by Arthur Lewis

- The proponents of the argument that there is a wage crisis and not a jobs crisis would do well to go back to economic history and study the work of Arthur Lewis, the Nobel Prize-winning economist from the West Indies.

- Lewis, in his seminal work in 1954, showed how in economies such as India and China, which have an "infinite supply of labour", there tends to be a two-sector economy — the capitalist sector and the subsistence sector.

- His summary finding was that the living standards of all citizens in such two-sector economies are determined by the wages of the people in the subsistence sector.

- If there is demand for labour and skills in the capitalist sector, then the endless supply of labour from the subsistence sector will transition, and wages will ultimately rise only when the demand for labour exceeds the supply of labour in the subsistence sector.

- The harsh and simple reality of India's jobs situation is that we are not creating as many jobs as we need to. There can be many reasons for the lack of our ability to generate enough jobs but at the very least, we must first acknowledge this problem.

- Calling this a wages crisis and not a jobs crisis is neither helpful nor sensible.

Need for formalizing the economy

- The proponents of the 'there is a wage crisis' argument also go on to say that the largely informal nature of India's economy leads to low productivity and hence keeps wages low.

- So, their solution for higher wages is to embark on a mission to explicitly formalise India's economy.

- Again, economic history tells us that formalisation is an outcome of economic development, not a cause.

- No large market economy in history has embarked on an explicit economic policy for forced formalisation.

- India's economic commentary today has a tendency to claim absolute truth based on limited subject experience.

- There is no need to complicate the state of India's jobs market. The simple truth of it is that we do not produce enough jobs.

34. Time to usher in the EV revolution

Editorial Analysis:

Introduction:

- The air quality in our cities is deteriorating at an alarming rate.

- It is important to note that today, 14 out of the 15 most polluted cities in the world are in India.

- Experts have opined that if left unchecked, we are staring not only at severe health costs but also losing highly skilled work force to migration abroad.

- It is important to note that transportation is an outsized contributor to this situation, if not the sole one.

Battery electric vehicles (BEVs): A Solution

- Battery electric vehicles (BEVs) are an integral part solution to this problem, which justifies strong public support for their adoption.

- However, despite generous tax subsidies, and other forms of support, adoption is not occurring at the pace and scale needed to have a meaningful impact on oil imports and urban air quality.

- Further, subsidies have proven unsustainable even for the wealthy countries (e.g. Norway). Nevertheless, there is reason for optimism.

- Experts have opined that the basic point here is that policymakers should recognise some new realities, and tweak our policies to take full advantage of such facts.

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Global Trends: A Perspective

- Two recent economic developments justify an even more aggressive but a smarter policy agenda.

- Firstly, is the dramatic reductions in the global cost of battery storage.

- It is important to note that the last decade has witnessed a six-fold reduction in the international price of Li-ion storage batteries (about $1000 per kilowatt hour (kWh) in 2010 to about $170 per kWh in 2018).

- As a matter of fact, this has substantially mitigated the disadvantage of BEVs in terms of upfront cost and propelled them ahead of other zero emissions technologies, the most notable being hydrogen fuel-cells.

- Indeed, BEVs cause pollution during power generation, and during battery production and disposal.

- It is, therefore, imperative we decarbonise electricity and ensure the batteries are environmentally sustainable.

- Second, is the fall in cost of solar and wind electricity as evidenced in the prices discovered in repeated auctions by the Solar Energy Corporation of India.

- An important question arises: What is a smarter way to ushering in the electric vehicle revolution?

Smart Ways of ushering the electric vehicle revolution: A Perspective

- A central feature of such an approach is targeting electrification of those vehicle segments that offer the greatest environmental and socio-economic return on investment.

- The basic reality is that more intensive the utilisation (i.e., more kilometers/day) of a BEV, greater are its fuel cost savings and environmental benefits.

- This means a focus on commercial vehicles over private household vehicles.

- Further, in contrast, BEV policies world-over have prioritised adoption by private households.

- It is important to note that city bus fleets are the ideal first segment for full electrification given their straightforward charging infrastructure demands (install fast chargers at bus stations).

- Also, a study by University of California Los Angeles (UCLA) and Lawrence Berkeley National Lab (LBNL), concludes BEVs would not only improve air quality but also increase ridership and revive loss-making bus agencies.

- Alongside buses, taxi fleets (Uber, Ola, Merucabs etc), and short- and medium-haul light commercial trucks and delivery vans that mostly operate within city-limits are ripe for electrification right away.

Changes that need to take place:

- Realising the above dream hinges foremost on the establishment of a widespread, reliable, network of fast-chargers within cities and along highways, which is the second key task for government.

- Further, as important as vehicle subsidies might be, this should not compromise expenditure on creating infrastructure. For until such an infrastructure is in place, it is hard for private businesses and households to delay adopting new technologies.

- Research by LBNL and UCLA shows also that both the physical footprint and the amortised cost per mile of a reliable fast-charging network for a large city are modest and decline dramatically with scale and intensive utilisation.

- Next, it is important to note that while city bus fleets followed by other intra-city commercial vehicles are the simplest and cheapest to electrify first given their well-defined range of use, with more than 50 per cent of India's oil consumption is for long-haul trucking and more than 80 per cent of the bus fleet plying on inter-city routes, we also simultaneously need to begin electrification of highways.

Five concrete yet broad policy interventions to realise this vision:

1. 100 per cent EV pilots:

- Experts have opined that the need currently is to select a few major cities and select major state and national highway corridors to serve as pilots that demonstrate both the technical feasibility and economic viability of 100 per cent electrification of city buses and commercial taxi fleets and a reasonable share of inter-city buses and trucks.

- The cost of these pilots can be reduced by aggregating demand from all across the country and centrally procuring and allocating the vehicles and infrastructure equipment at scale using public auctions.

2. Building of infrastructure:

- Having identified the locations for pilots, the next step is to fund the building of the fast-charging infrastructure.

- In fact, at this stage it is prudent to somewhat over-build this infrastructure to ensure reliability and ease of access at the expense of being under-utilised given the high stakes of this venture.

- It is also essential to ensure that this infrastructure benefits from the revolution in renewable electricity markets.

3. Subsidy targeting:

- Further, to reduce the total burden on public finances, the subsidy regime needs to be reformed to ensure that the vast majority of the vehicle subsidies are directed to high-mileage vehicles with a substantial portion allocated to city bus fleets given the environmental imperative and their potential to revive public transportation.

- At the same time, there is merit to continuing some support to adoption by private households in both the two- and four-wheeler markets.

4. Industry buy-in:

- In order to ensure that the public investments in infrastructure and subsidies are put to their full and best use, we should require that both public transportation agencies and private operators of commercial vehicles (taxis, buses and trucks) commit to mandatory targets for electrification of a certain share of their total annual kilometres travelled or serviced to be derived from BEVs.

5. Make in India:

- The above efforts must be complemented with supporting policies to ensure that in the long run we do not end up swapping oil imports and fuel insecurity for battery imports. This could be achieved by using a combination of carefully designed mandates and targeted subsidies that balance strategic objectives and flexibility for private industry.

Concluding Remarks:

- In conclusion, we have never had a better chance to forge a sustainable future, one that is not captive to a scarce, toxic, and inequitable natural resource whose future is under our feet and not over our heads.

35. Trade Receivables Discounting System (TReDS)

- It is a digital platform where small businesses (MSMEs) can get access to capital by auctioning their trade receivables.

- It is an electronic platform that allows auctioning of trade receivable. The process is also commonly known as 'bills discounting', a financier (typically a bank) buying a bill (trade receivable) from a seller of goods before it's due or before the buyer credits the value of the bill.

- In other words, a seller gets credit against a bill which is due to him at a later date. The discount is the interest paid to the financier.

How does the system work?

- A seller has to upload the invoice on the platform. It then goes to the buyer for acceptance.

- Once the buyer accepts, the invoice becomes a factoring unit. The factoring unit then goes to auction.

- The financiers then enter their discounting (finance) rate.

- The seller or buyer, whoever is bearing the interest (financing) cost, gets to accept the final bid.

- TReDs then settle the trade by debiting the financier and paying the seller. The amount gets credited the next working day into the seller's designated bank account through an electronic payment mode.

- The second leg of the settlement is when the financier makes the repayment and the amount is repaid to the financier.

What are the discounting rates?

- The financiers can't bid below marginal cost of funds-based lending rate (MCLR) rate set by the RBI.

- Typically, for buyers with good credit ratings, financiers bid near the MCLR rate. The spread widens depending upon the buyers' credit rating.

What are the teething issues faced by the platforms?

- All the transactions undertaken on the TReDS have to be registered with the Central Registry of Securitization and Asset Reconstruction and Security Interest of India.

- The registration charge goes up to Rs 750, which discourages small-ticket sellers from using the platform.

- Also, TReDS providers want the KYC (know your customer) related regulations to be streamlined.

- Further, they want more players to be allowed as financiers.

- Currently, only banks and certain NBFCs are allowed to be financiers. Experts say even other participants like high networth individuals should be allowed to act as a financier to expand the market.

36. Transport and Marketing Assistance (TMA)

Context:

- All Department of Commerce of the Ministry of Commerce & Industry has notified a scheme for Transport and Marketing Assistance (TMA) for Specified Agriculture Products.

Objective

- The "Transport and Marketing Assistance" (TMA) for specified agriculture products scheme aims to provide assistance for the international component of freight and marketing of agricultural produce which is likely to mitigate disadvantage of higher cost of transportation of export of specified agriculture products due to trans-shipment and to promote brand recognition for Indian agricultural products in the specified overseas markets.

- The scheme would be suitably included in the Foreign Trade Policy (2015-20).

Coverage

- All exporters, duly registered with relevant Export Promotion Council as per Foreign Trade Policy, of eligible agriculture products shall be covered under this scheme.

- The assistance, at notified rates, will be available for export of eligible agriculture products to the permissible countries, as specified from time to time.

37. Transports Internationaux Routiers' (TIR) convention/ TIR Carnets

- International Road Transport is a multilateral treaty that was concluded at Geneva in 1975 to simplify and harmonize the administrative formalities of international road transport.

  * The conventions were adopted under the auspices of the United Nations Economic Commission for Europe (UNECE).

- The TIR system not only covers customs transit by road but a combination is possible with other modes of transport (e.g., rail, inland waterway, and even maritime transport), as long as at least one part of the total transport is made by road.

- The TIR Convention establishes an international customs transit system with maximum facility to move goods:

  * in sealed vehicles or containers;

  * from a customs office of departure in one country to a customs office of destination in another country;

  * without requiring extensive and time-consuming border checks at intermediate borders;

  * While, at the same time, providing customs authorities with the required security and guarantees.

- India was the 71st signatory to this international transit system.

- FICCI has been appointed as National Issuing & Guaranteeing Association and system is managed worldwide by the International Road Transport Union (IRU), Geneva and overseen by the United Nations Economic Commission for Europe (UNECE).

Context

- The first shipment under the United Nations 'Transports Internationaux Routiers' (TIR) convention arrived in India from Afghanistan through Iran's Chabahar Port.

- The consignments arrived at port of Nhava Sheva, Mumbai and Mundra

Merits

- The Convention will help Indian traders to have access to fast, easy, reliable and hassle free international system for movement of goods by road or multi- modal means across the territories of other contracting parties.

- By joining the convention, the need for inspection of goods at intermediate borders as well as physical escorts en route shall be obviated due to reciprocal recognition of Customs controls.

- Customs clearance can take place at internal Customs locations thereby avoiding clearances at Border Crossing Points and ports that may often be congested.

- Movement under the TIR can be allowed by checking only the seals and the external conditions of the load compartment or the container thereby reducing border delays, transport and transaction costs thereby leading to increased competitiveness and growth for the trade and transport sectors.

- Compliance with the Convention shall ensure enhanced security in the supply chain as only approved transporters and vehicles are allowed to operate in terms of the Convention.

- The TIR carnet also serves as a Customs declaration, and hence it precludes the need to file multiple declarations satisfying national laws of the different transiting countries.

- The TIR Convention can be an instrument for movement of goods along the International "North-South" Transport (INSTC) Corridor and would be helpful in boosting trade with the Central Asian Republics and other Commonwealth of Independent States (CIS), particularly using ports in Iran like the Chabahar port.

38. Ujjwala Didi

- Ujjwala Didi is a CSR handholding initiative that aims at creating a force of 10,000 grassroot educators who can take the three messages till the last mile, viz.

  * Clean Cooking Fuel is to be universally available

  * Clean Cooking fuel is affordable

  * LPG is safe to use and insured.

- The •   Ujjwala Didis will facilitate refill, address any fear around LPG safety, help in resolving any grievances and facilitate new connections. Thus these empowered women will contribute to overall women empowerment in their panchayats.

- Ujjwala Didis are a living testimony of the highest possibilities of inclusive development.

39. Union Minister of Commerce and Industry Launches GI Website & Tutorial Video on IPR

Context:

Union Minister of Commerce and Industry, Suresh Prabhu, launched a tutorial video on "Intellectual Property Rights" for school students and the GI website. Cell for IPR Promotion and Management.

- 'IP Nani', India's first Intellectual Property (IP) Mascot, features in a series of short animated videos, to spread awareness about the importance of IPRs amongst children.
- Cell for IPR Promotion and Management, Department for Promotion of Industry and Internal Trade, have been actively involved in many IPR related initiatives, including a nation-wide IPR awareness campaign drive in the country.

Cell for IPR Promotion and Management:

- Cell for IPR Promotion and Management (CIPAM) CIPAM is a professional body under the aegis of the Department of Industrial Policy & Promotion (DIPP) Ministry of Commerce & Industry.
- Its mandate is to effectively implement National Intellectual Property Rights (IPR) Policy adopted in May 2016 with slogan — "Creative India", "Innovative India".
- It also has the mandate to protect and promote this diversity through GI. The website will help in promoting creativity and motivate more of India's skilled artisans to apply for GI registration.
- It has undertaken several measures to strengthen IP ecosystem in the country.

40. UNNATEE (Unlocking NATional Energy Efficiency potential)

- Bureau of Energy Efficiency (BEE) has developed a national strategy document for accelerating energy efficiency in India.
- The strategy document titled UNNATEE (Unlocking NATional Energy Efficiency potential) describes a plain framework and implementation strategy to establish a clear linkage between energy supply-demand scenarios and energy efficiency opportunities.
- The document offers a comprehensive roadmap to address India's environmental and climate change mitigation action through energy efficiency measures.

41. Usha Thorat panel to study offshore rupee market

Context

- The Reserve Bank of India announced a task force headed by former RBI deputy governor Usha Thorat to examine issues related to offshore rupee markets and recommend policy measures to ensure stability of the external value of the domestic currency.

- The eight-member task force will assess the causes behind the development of the offshore rupee market and study the effects of the offshore markets on the rupee exchange rate and market liquidity in the domestic market.
- The terms of reference of the task force also include measures to generate incentives for non-residents to access the domestic market and examine the role, if any, International Financial Services Centres (IFSCs) can play in addressing these concerns.

42. White Label ATMs (WLAs)

Background

- Automated Teller Machines (ATMs) provide the facility of accessing depositor's accounts for dispensing cash and to carry out other financial and non-financial transactions without the need for actually visiting their bank branch.
- ATMs have expanded the scope of banking to anytime, anywhere banking through interoperable platforms.
- Cards issued by one bank can be operated through the ATMs set up by other banks.
- Earlier only banks were permitted by the Reserve Bank of India (RBI), to set up ATMs. However, ATMs have become the means for financial inclusion and have been leveraged for delivery of a wide variety of banking services to customers.
  * Their deployment has been predominantly in Tier I & II centers
- To expand the reach of ATMs in Tier III to VI centers, non-banks entities were also allowed to set up ATMs

What is it?

- Automated Teller Machines (ATMs) set up, owned and operated by non-bank entities are called "White Label ATMs" (WLAs).
- Non-bank entities that set up, own and operate ATMs are called "White Label ATM Operators" (WLAO).
- Tata Communications Payment Solutions Limited (TCPSL) is the first company authorized by Reserve Bank of India (RBI) to open White Label ATMs in the country
  * It got launched under the brand name 'Indicash' in 2013.

Who can operate them?

- Non-bank entities incorporated in India under the Companies Act are allowed to operate WLAs
- Non-bank entities are permitted to set up WLAs in India, after obtaining authorisation from RBI under the Payment and Settlement Systems (PSS) Act 2007

- Such non-bank entities should have a minimum net worth of Rs 100 crore as per the latest financial year's audited balance sheet, which is to be maintained at all times.

- In September 2015, Government permitted Foreign Direct Investment (FDI), up to 100%, under the automatic route.

  * Before that, foreign investment in White Label ATMs, was being allowed only through government approval route.

Monetary benefits

- The WLA operator is entitled to receive a fee from the banks for the use of ATM resources by the banks customers, WLAs are not permitted to charge bank customer directly for the use of WLAs.

- Acceptance of deposits at the WLAs is not permitted.

- But the WLAO are permitted to display advertisements and offer value added services as per the regulations in force from time to time.

Cash Management

- Cash Management at the WLAs is the responsibility of the Sponsor Bank, who may if required, make necessary arrangements with other banks for servicing cash requirements at various places.

- WLAO is permitted to have more than one Sponsor Bank. While the cash would be owned by the WLAO, the responsibility of ensuring the quality and genuineness of cash loaded at such WLAs would be that of the Sponsor bank.

- At no point of time, the WLAO or his agents have access to the cash at the WLAs.

Major Players

- Currently, there are eight WLAOs in the country – AGS Transact Technologies Ltd, BTI Payments Pvt Ltd, Hitachi Payment Services Pvt Ltd, Muthoot Finance Ltd, RiddiSiddhi Bullions Ltd, SREI Infrastructure Finance Ltd, Tata Communications Payment Solutions Ltd, and Vakrangee Ltd.

White label ATM: Challenges/Limitations/Problems

- For a white label ATM company, biggest challenges = office rent + Security guard.

- If they want to make profit, every White ATM needs to get at least 75-125 transactions per day= very unlikely, especially when RBI requires them to setup 2/3rd of the ATMs in semi-urban and rural areas.

  * Even in Bangalore, some of the white-label ATMs are getting barely 2-3 customers every week=loss making business at the moment.

- Despite the entry of White Label ATM companies, the regular banks have not slowed down their ATM expansion drive, because branded ATM=passive advertisement and customer loyalty. Result? ATMs everywhere =too much competition= small players will bleed out just like in aviation business.

RBI eases business guidelines for white label ATMs

Context

- RBI has eased business guidelines for white label ATMs allowing companies that manage these machines to source cash directly from the central bank, offer non-bank services like bill payments and advertise even non-financial products in their premises, increasing the revenue earning scope for these companies.

Details

- White label ATM Operators (WLAO), can now source cash directly from RBI offices and currency chests, and will no longer be dependent on sponsor banks for procurement of cash. The RBI has allowed the operators to source cash from any scheduled bank including rural and cooperative banks

- The operators can display advertisements pertaining to non-financial products/services anywhere within the WLA premises, including the WLA screen, except the main signboard.

  * They have to ensure that the advertisements running on the screen disappear once the customer commences a transaction.

- The central bank said all guidelines, safeguards, standards, and control measures applicable to banks relating to currency handling and cyber-security framework for ATMs, shall also be applicable to WLA operators.

- Further, the RBI said banks can issue co-branded ATM cards in partnership with the authorised WLAOs, and may extend the benefit of 'on-us' transactions (where the customer or cardholder and ATM are of the same bank) to their WLAs as well.

43. Yield Curve

- A yield curve is a graph that depicts yields on all of the U.S. Treasury bills ranging from short-term debt such as one month to longer-term debt, such as 30 years.

- Normally, shorter-dated yields are less than longer-dated ones.

- The curve, in a normal market environment, is upward sloping as bond investors are likely to get higher rates in a longer-term market environment as opposed to short term. That's because the perceived risk in a longer-term environment is higher.

- In rare settings, this yield curve starts to get inverted, meaning longer-dated yields are lesser than shorter-dated yields.

What is an inverted yield curve?

- An inverted yield-curve occurs when long-term debts have a lower yield as compared with short-term debt.

- The higher rate for the longer-term bond compensates an investor for the greater risk that inflation will chip away at the value of that investment over time.

- Higher long-term rates reflect expectations that growth will continue. But when the difference between the short- and long-term rates narrows, it's a signal that people are less certain that growth is here to stay.

What does an inverted yield curve mean?

- An inverted yield curve is generally considered a recession predictor. It won't be immediate, but recessions have followed inversions a few months to two years later several times over many decades.

Context

- The yield curve inverted for the first time since mid-2007, a shift that has in the past signaled the risk of recession.

INTERNATIONAL RELATIONS

1. **Advanced Medium-Range Air-to-Air Missile (AMRAAM)**

   - The AIM-120 Advanced Medium-Range Air-to-Air Missile (AMRAAM) missile, manufactured by American firm Raytheon, is available in many variations, and has been sold to many countries including Taiwan, Finland, the UAE, Turkey and Pakistan.

   - This missile can be fired from F-16s which are among the aircraft of the PAF

   Evidence shared by India

   - The Indian Air Force has displayed parts of an AMRAAM beyond visual range air-to-air missile as evidence to "conclusively" prove that Pakistan deployed US-manufactured F-16 fighter jets during an aerial raid targeting Indian military installations in Kashmir after India's anti-terror operation in Balakot.

   - The evidence is critical to establishing use of the F-16s in the air strike since the US, which sold the fighter jets to Pakistan, does not allow these platforms to be used in an offensive role.

   - The U.S. is seeking more information from Pakistan on the potential misuse of American-made F-16 fighter jets by it against India in violation of the end-user agreement

   Concluding Remarks:

   - It is important to note that the United States, which is the largest seller of high-tech defence equipment globally, has a strong end-user monitoring agreement, and as a matter of practice takes all allegations of misuse of defense articles very seriously.

2. **Africa-India Joint Field Training Exercise (AFINDEX-19)**

   - It is an exercise between the Indian Army and 16 African nations

   - As many as 10 personnel, each from the participating nations from the African continent and personnel of Maratha Light Infantry of Indian Army, will participate in the joint exercise

   - The aim of the exercise is to train the participating contingents in Humanitarian Mine Assistance (HMA) and Peace Keeping Operations (PKO) under the United Nations Charter.

   - The joint exercise focuses on incorporating the current dynamics of the United Nations Peace Keeping operations through practical and comprehensive discussions and tactical exercises.

   - The joint exercise will focus on achieving interoperability, learning each other's methodologies and tactics through synchronised operational level planning and tactical level training.

3. **Arun-3 hydro project**

   Context

   - The government approved ₹1,236.13 crore investment proposal for transmission component in Nepal portion of Arun-3 Hydro Electric Project by Sutlej Jal Vikas Nigam (SJVN).

   Details

   - The Arun-3 Hydro Electric project (900 MW) is located on Arun River in Sankhuwasabha District of Eastern Nepal.

   - The project will provide surplus power to India's strengthening economic linkages with Nepal.

   - The power from the project will be exported from Dhalkebar in Nepal to Muzaffarpur in India.

4. **Brexit**

   European Union

   Origins

   - The EU represents one in a series of efforts to integrate Europe since World War II.

   - At the end of the war, several western European countries sought closer economic, social, and political ties to achieve economic growth and military security and to promote a lasting reconciliation between France and Germany.

   - To this end, in 1951 the leaders of six countries—Belgium, France, Italy, Luxembourg, the Netherlands, and West Germany—signed the Treaty of Paris, thereby, when it took effect in 1952, founding the European Coal and Steel Community (ECSC).

   - The Treaty of Rome/ Treaty on the Functioning of the European Union brought about the creation of the European Economic Community (EEC), the best-known of the European Communities (EC).

   - The Euratom Treaty, officially the Treaty establishing the European Atomic Energy Community, established the European Atomic Energy Community. It was signed in 1957, at the same time as the Treaty establishing the EEC

   - HQ: Brussels, Belgium

   The Maastricht Treaty

   - The Maastricht Treaty (formally known as the Treaty on European Union), which was signed on February 7, 1992, created the European Union

   - In 1993, with the Maastricht Treaty, the EEC became known as the EU

   - The treaty consisted of three main pillars:

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* The European Communities

* A common foreign and security policy

* Enhanced cooperation in home (domestic) affairs and justice.

- The treaty changed the name of the European Economic Community to the European Community (EC), which became the primary component of the new European Union.

- The agreement gave the EC broader authority, including formal control of community policies on development, education, public health, and consumer protection and an increased role in environmental protection, social and economic cohesion, and technological research.

Lisbon Treaty

- Lisbon Treaty, international agreement that amended the Maastricht Treaty, Treaties of Rome, and other documents to simplify and streamline the institutions that govern the European Union (EU).

- The Lisbon Treaty came into force on December 1, 2009, as the culmination of the EU's eight-year quest to make the organisation "more democratic, more transparent and more efficient".

- It set out a number of rules and posts including the introduction of the EU Presidency, redistribution of voting weights of member states

How do nations join?

To become part of the union, a country has to meet the Cophenhagen criteria - defined at the 1993 meeting of the European Council which took place in the Danish capital. There are three directives they have to prove before the European Council will open negotiations. These are:

- Political: stability of institutions guaranteeing democracy, the rule of law, human rights and respect for and protection of minorities;

- Economic: existence of a functioning market economy and the capacity to cope with competitive pressure and market forces within the Union;

- Acceptance of the Community acquis: ability to take on the obligations of membership, including adherence to the aims of political, economic and monetary union.

Euroskepticism

- European political doctrine that advocates disengagement from the European Union (EU).

- Political parties that espouse a Euroskeptic viewpoint tend to be broadly populist and generally support tighter immigration controls in addition to the dismantling or streamlining of the EU bureaucratic structure.

- The main sources of Euroscepticism have been beliefs that integration undermines national sovereignty and the nation state

- Euroscepticism should not be confused with anti-Europeanism, which is a dislike of European culture and European ethnic groups by non-Europeans.

When did the UK Join EU?

- The United Kingdom made its first application to join in 1961. It was quickly apparent that there was a danger of political isolation within Western Europe, Commonwealth states were rushing to do deals with the new bloc, and it had American support.

- This application was vetoed by the French Government in 1963 with a second application vetoed by the French again in 1967.

* They rejected the application as they felt British membership would weaken the French voice within Europe, and that the US-UK relationship would strengthen America's influence.

* It was only in 1969 that the green light was given to negotiations for British membership.

- The United Kingdom joined the European Economic Community (as it then was) in 1973 with Denmark and Ireland.

Article 50

This is the part of the Lisbon Treaty which sets out what happens when a country decides that it wants to leave the EU.

- Under the Lisbon treaty, a member state wishing to leave the EU should first notify the European Council its decision

- On March 29, 2017, the UK was set on a course to leave the EU by March 29, 2019.

- After triggering Article 50 it is supposed to take two years to completely leave the EU

- Under Article 50, the EU must "negotiate and conclude an agreement with that State, setting out the arrangements for its withdrawal." The terms of the withdrawal must be approved by 20 of the 27 remaining EU countries, provided they also represent 65% of the EU population.

Key elements of a soft Brexit:

It would keep the UK closely aligned with the EU.

- The UK could gain special access to the single market but might have to, in return, compromise on immigration agreements.

- It aims to minimize the impact on trade and businesses by essentially staying in the customs union.

- The result would be that the UK would still be bound by some of the rules of the bloc, but it would have less of a say in how the rules are made.

- And it would be harder for the UK to sign its own new trade deals.

Key elements of a hard Brexit:

It essentially means taking the UK completely out of the EU – including both the single market and the customs union, so it is free from its regulations and tariffs.

- It would give the UK more control over its borders and immigration.
- There would be short-term disruption that would cause in order to have the freedom to operate independently.
- It could cause more economic damage to both the UK and the EU but supporters think this would be worth it for the country to be able to then draw up its independent trade agreements.

What is a 'no deal' Brexit?

- A "no deal" Brexit does what it says on the tin. It means the UK and the EU has been unable to reach a withdrawal agreement.
- That would mean there would be no transition period after the UK leaves, and EU laws would stop applying to the UK immediately
- Consequently consumers, businesses and public bodies would have to respond immediately to changes as result of leaving the EU.
    * It expects some food prices could rise and checks at customs could cost businesses billions of pounds.

Withdrawal Agreement

The Withdrawal Agreement covers some of these key points:

- How much money the UK will have to pay the EU in order to break the partnership - that's about £39bn
- What will happen to UK citizens living elsewhere in the EU, and equally, what will happen to EU citizens living in the UK
- How to avoid the return of a physical border between Northern Ireland and the Republic of Ireland when it becomes the frontier between the UK and the EU

Why is the UK leaving?

- A public vote - called a referendum - was held on Thursday 23 June 2016 when voters were asked just one question - whether the UK should leave or remain in the European Union.
- The Leave side won by nearly 52% to 48% - 17.4m votes to 16.1m - but the exit didn't happen straight away.
- It was due to take place on 29 March 2019

Why they wanted to leave?

- Britain is being held back by the EU, which they say imposes too many rules on business and charges billions of pounds a year in membership fees for little in return.
- One of the main principles of EU membership is "free movement", which means you don't need to get a visa to go and live in another EU country.
- They also object to the idea of "ever closer union" and any ultimate goal to create a "United States of Europe".
- It will be able to secure trade deals important countries such as China, India and America.
- It saves money which could be used for scientific researches and for building new industries.
- Leaving will return control over areas like employment, law, health and safety.
- Currently, Britain has little influence within the EU. By leaving EU, it can have a stronger influence for free trade and cooperation.

Why few want UK to stay?

- They believe Britain gets a big boost from EU membership - it makes selling things to other EU countries easier and, they argue, the flow of immigrants, most of whom are young and keen to work, fuels economic growth and helps pay for public services.
- They also believe Britain's status in the world would be damaged by leaving and that we are more secure as part of the bloc.
- Britain avoids exporter tariffs and red tape, important as 45% of British exports go to the EU. As a member, Britain can obtain better trade terms because of EU's size.
- By staying with EU, Britain can fight for better regulations.
- Leaving doesn't mean reduced immigration. Countries that trade with the EU from outside have higher rated of immigration, including from EU countries.

Concerns for India

- Brexit affects global financial market. Markets across the world will tank. The pound will depreciate against most major economies. India cannot remain immune to this. Sensex and Nifty will tumble in the short-run.
- India is presently the second biggest source of FDI for Great Britain. Indian companies that would set up their factories in the UK could sell their products to the rest of Europe under the European free market system. However, now it will not be as attractive a destination for Indian FDI as before.

- With Brexit, India will lose its gateway to Europe. This might force India to forge ties with another country within the EU, which would be a good result in the long run. India is already trying to build trade negotiations with Netherlands, France, Germany, and others, albeit in a small way. Netherlands is India's top FDI destination as of now. A Brexit could force India to build trading partnership with other EU nations in order to access the large EU market.

It can help India in following ways

- With Britain cutting off ties with the EU, it will be desperate to find new trading partners and a source of capital and labour. Britain will still need a steady inflow of talented labour, and India fits the bill perfectly due to its English-speaking population. With migration from mainland Europe drying up, Britain would be able to accommodate migration from other countries, which will suit India's interests.

- Britain is one of the most important destinations for Indians who want to study abroad. Presently, British universities are forced to offer subsidized rates for citizens of the UK and EU. With Brexit, however, the universities will no longer be obliged to provide scholarships to EU citizens, which will free up funds for students from other countries. Many more Indian students may be able to get scholarships for studying in the UK.

Divided communities

The U.K. is not one nation but four:

- Wales was brought under English rule in the 13th century;

- Ireland was incorporated by a combination of military force and political persuasion in 1801;

- Scotland, though never militarily defeated, was persuaded to join the Union in 1707.

1. View from Scotland

- Indeed, part of the reason that Scotland joined the Union in 1707 was because it was broke: the kingdom had suffered heavy financial losses from a disastrous expedition to secure a trading base in the late 17th century.

- The failure of the Darien Scheme: it was an unsuccessful attempt by the Kingdom of Scotland to become a world trading state by establishing a colony called "Caledonia" on the Isthmus of Panama on the Gulf of Darién in the late 1690s.

- Once within the Union, the colonial enterprise and then Empire offered not just wealth but all the trappings of great power.

The end of the British Empire

- It signalled Britain's departure from the global stage.

- The Suez crisis of 1956 confirmed its diminished status. And Brexit, Britain's retreat from its own continent, has completed the project.

- Little England has withdrawn into itself to protect mythical ideas of Englishness against the supposed onslaught of waves of foreign immigration and EU rule.

Scottish nationalism

- It has been simmering for years now, only partly placated by the devolution of some domestic powers to a Scottish Parliament under the Scotland Act of 1998.

- A referendum on Scottish independence in 2014 ended up being a closer call than had been anticipated (55% vs 45%), though it was clear even then that part of the reason for remaining was that the U.K. offered membership of the EU (which was not automatically on offer for an independent Scotland).

- Now, with Brexit looming, Scottish demands for independence resurface regularly.

2. Northern Ireland

- Brexit threatens the fragile peace imposed by the Good Friday Agreement of 1998, which formally ended the Troubles, or decades of bitter sectarian violence.

- Between 1968 and 1998, the mainly Protestant Unionists were pitted against the mostly Catholic Republicans, who wished for Northern Ireland to join the Republic of Ireland.

- Paramilitary forces grouped on both sides, and the British Army and the Royal Ulster Constabulary (the police) were also pulled in. Indeed, the Troubles became the longest major campaign of the British Army. The Good Friday Agreement has allowed the region to move forward.

A fragile peace Agreement

- It is comprising complex intertwined agreements between first, most of Northern Ireland's political parties;

- Second, the British and Irish governments to manage the relationships between Britain and Ireland, and between Northern Ireland and the rest of Britain.

- Underpinning all of this is the dismantling of the border infrastructure — watch-towers, fences, checkposts — that had divided the island of Ireland. This was only possible because both countries belonged to the EU.

- If Britain leaves the customs union and single market of the EU, which guarantees the freedom of movement of people and goods between member states, then some sort of infrastructure will have to come up at the border between the EU and Britain in Ireland.

Backstop

- The backstop is meant to be a last resort to keep an open border on the island of Ireland - whatever happens in the Brexit negotiations.

- It would mean that Northern Ireland, but not the rest of the UK, would still follow some EU rules on things such as food products.

5. **Christchurch Massacre**

What's in the news?

- On 15th of March, at least 49 people were killed by a terrorist in two mosques in Christchurch and the attack has left New Zealand shaken to the core.
- The attack is a wakeup call on the rising threat of anti-immigration, white supremacist cult.

The suspect and his motives

- An Australian national, Brenton Harrison Tarrant, is believed to be the suspect and he livestreamed the massacre on social media after releasing a white supremacist manifesto titled 'The Great Replacement Manifesto'.
- The manifesto is loaded with far-right wing extremist ideas and uses the language of white supremacists and neo-Nazis.
- It called for removing the "invaders" and "retaking" Europe, a clear indication of the attacker's anti-immigration views and Islamophobia.
- The document and the symbols he carried clearly suggest that he was influenced by far-right terrorists and their anti-Muslim, anti-immigration and anti-Semite ideology. His targets were clearly Muslims, who make up less than 1% of New Zealand's population.
- He wore military fatigues, carried neo-Nazi emblems and was listening in his car to a song devoted to Bosnian war criminal Radovan Karadžić.
- His manifesto lauds Anders Breivik, the Norwegian far-right terrorist who killed 77 people in 2011 who had released a 1,518-page racist manifesto.
- He also mentions US President Donald Trump as a "symbol of renewed white identity and common purpose" in his manifesto.

What is White Supremacism?

- White ssupremacy or white supremacism is the racist belief that white people are superior to people of other races and therefore should be dominant over them.
- White supremacy has roots in scientific racism, and it often relies on pseudoscientific arguments.
- Like most similar movements such as neo-Nazism, white supremacists typically oppose members of other races as well as Jews.

White Supremacism across the world

Unites States

- White supremacy was dominant in the United States both before and after the American Civil War, and it also persisted for decades after the Reconstruction Era.

- After the mid-1960s, white supremacy remained an important ideology to the American far-right.
- White supremacist groups (such as the Ku Klux Klan, neo-Nazi organizations, and racist skinheads) and a religious fundamentalist movement (such as Christian Identity) were notorious for targeting non-whites and immigrants.
- This extremist ideology has witnessed a resurgence in the US after the 2016 Presidential elections which fueled anti-immigration hatred and Islamophobia.

Europe

- White supremacist ideology was dominant in many European countries during the colonial era.
- The imperial powers believed that the whites were of a superior race as compared to the non-white natives in their colonies.
- It was pre-dominant during the world wars and it was later countered by modern, liberal and progressive values.
- But in the last one decade the ideology is being revived in several countries including Britain, France, the Scandinavian countries etc.
- This is believed to be an outcome of the culture of hatred, Islamophobia and Xenophobia which has been cultivated by certain political parties and their leaders following the huge flow of refugees and immigrants in to Europe over the last 15 years and a series of terror attacks on European soil attributed to radical Islamic outfits such as AL-Qaeda and ISIS.

Germany

- Nazism promoted the idea of a superior Germanic people or Aryan race in Germany during the early 20th century.
- Notions of white supremacy and Aryan racial superiority were combined in the 19th century, with white supremacists maintaining the belief that white people were members of an Aryan "master race" which was superior to other races, particularly the Jews, who were described as the "Semitic race".
- In the 1930's systematic anti-Semitic violence was unleashed by the Nazis against the Jews.

South Africa

- A number of Southern African nations experienced severe racial tension and conflict during global decolonization, particularly as white Africans of European ancestry fought to protect their preferential social and political status.
- Racial segregation in South Africa began in colonial times under the Dutch Empire, and it continued when the British took over the Cape of Good Hope in 1795.
- Apartheid was introduced as an officially structured policy after the general election of 1948. Apartheid's legislation divided inhabitants into four racial groups—"black", "white", "colored", and "Indian", with colored divided into several sub-classifications.

- In 1970, the government abolished non-white political representation, and starting that year black people were deprived of South African citizenship. South Africa abolished apartheid only in 1991.

Resurgence of Right-wing terrorism in Western countries

- Right-wing racist terror, which has largely been on the fringes in the post-war world, is emerging as a major political and security threat, especially in white majority societies.

- In recent years, mosques in Germany and France have been targeted; in Britain an MP was stabbed to death; and in the U.S. a synagogue was attacked, leaving 11 people dead.

- In most cases, the attackers were obsessed with immigration and the far-right ideas of Euro-Christian white racial purity, which is fundamentally not different from the ideology of the Nazis.

- The language these attackers use resembles that of mainstream anti-immigrant politicians in Western countries, such as Mr. Trump, who wanted to ban Muslims from entering the U.S.; Viktor Orbán, the Prime Minister of Hungary, who wants to defend "Christian Europe"; or Italian Interior Minister Matteo Salvini, known for his hardline views on migrants.

- Besides, a number of far-right parties known for their Islamophobic, white nationalist views are either in power in Europe or are on the rise, be it the Freedom Party of Austria, the AfD of Germany or the National Front of France.

- While they and their leaders set the broad contours of anti-immigrant, anti-Muslim and anti-Semitic politics as part of their nationalist narrative, neo-Nazis such as Breivik and the Christchurch shooter are killing common people.

Conclusion

- Societies worldwide should wake up to the growing danger right-wing racist terrorism poses, and not view it as mere isolated, irrational responses to Islamist terror.

- It has to be fought politically, by driving a counter-narrative to white supremacism, and by using the security apparatus, through allocation of enough resources to tackle all threats of violence.

6. Ex Al Nagah 2019

- It is joint military exercise between Indian and Royal Army of Oman (RAO), commenced at HQ Jabel Regiment, Nizwa, Oman.

- Both sides will jointly train, plan and execute a series of well-developed tactical drills for neutralization of likely threats that may be encountered.

- Experts from both sides will also hold detailed discussions to share their experience on varied topics for mutual benefit.

- Ex Al Nagah 2019 will contribute immensely in developing mutual understanding and respect for each other's military as also facilitate in tackling the worldwide phenomenon of terrorism.

7. Golan Heights

Context

- President Donald Trump announced that the U.S. should recognise Israeli sovereignty over the Golan Heights, an area seized from Syria and annexed in a move never recognised by the international community.

- Previously, Mr. Trump has already recognised as Israel's capital Jerusalem, a city it captured in parts in the 1948 and 1967 wars and which is claimed by both Israelis and Palestinians.

Details

- Israel captured the Golan Heights from Syria during the Six-Day War of 1967 and formally annexed the territory in 1981.

- But that annexation has not been recognized by the international community, which has regarded the Golan Heights as occupied territory and Israeli settlements there as illegal under international law.

- Syria tried to regain the Heights in the 1973 Middle East war, but was thwarted. Israel and Syria signed an armistice in 1974 and the Golan had been relatively quiet since.

- In 2000, Israel and Syria held their highest-level talks over a possible return of the Golan and a peace agreement. But the negotiations collapsed and subsequent talks also failed.

Why does Israel want the Golan?

- Security. Israel says that the civil war in Syria demonstrates the need to keep the plateau as a buffer zone between Israeli towns and the instability of its neighbour.

- Israel's government says it also fears that Iran, an ally of Syrian President Bashar al-Assad, is seeking to establish itself permanently on the Syrian side of the border in order to launch attacks on Israel.

- Both sides covet the Golan's water resources and naturally fertile soil.

Who lives there?

- More than 40,000 people live on the Israeli-occupied Golan, more than half of them Druze residents.

  * The Druze are an Arab minority who practice an offshoot of Islam and many of its adherents in Syria have long been loyal to the Assad regime.

  * After annexing the Golan, Israel gave the Druze the option of citizenship, but most rejected it and still identify as Syrian.

• About another 20,000 Israeli settlers also live there, many of them working in farming and tourism.

Who controls the Syrian side of the Golan?

• Before the outbreak of the civil war in Syria in 2011, there was an uneasy stand-off between Israeli and Syrian forces loyal to President Bashar al-Assad.

• But in 2014 anti-government Islamist rebels overran Quneitra province on the Syrian side. The rebels forced Assad's forces to withdraw and also turned on US forces in the area, forcing them to pull back from some of their positions.

• The area remained under rebel control until the summer of 2018, when Assad's forces returned to the largely ruined city of Quneitra and the surrounding area following a Russian-backed offensive and a deal that allowed rebels to withdraw.

What is the current military situation?

• Assad's forces are now back in control of the Syrian side of the Quneitra crossing, which reopened in October 2018.

What separates the two sides on the Golan?

• A United Nations Disengagement Observer Force (UNDOF) is stationed in camps and observation posts along the Golan, supported by military observers of the United Nations Truce Supervision Organization (UNTSO).

• Between the Israeli and Syrian armies is a 400-square-km (155-square-mile) "Area of Separation" – often called a demilitarized zone – in which the two countries' military forces are not permitted under the ceasefire arrangement.

• The Separation of Forces Agreement of May 31, 1974 created an Alpha Line to the west of the area of separation, behind which Israeli military forces must remain, and a Bravo Line to the east behind which Syrian military forces must remain.

• Extending 25 km beyond the "Area of Separation" on both sides is an "Area of Limitation" in which there are restrictions on the number of troops and number and kinds of weapons that both sides can have there.

Geography

• The Golan Heights borders Israel, Lebanon and Jordan.

• The area is hilly and elevated, overlooking the Jordan Rift Valley which contains the Sea of Galilee and the Jordan River, and is itself dominated by the 2,814 metres (9,232 ft) tall Mount Hermon.

Concerns

• Unlike Egypt in the 1970s, Syria has had neither the military ability nor the international clout to launch a campaign to get its territory back.

  * President Bashar al-Assad tried to kick-start a U.S.-mediated peace process with Israel during the Obama presidency, but it failed to take off. And now, the Syrian government, after fighting eight years of a civil war, is debilitated and isolated, and the U.S. move is unlikely to trigger any strong response, even from the Arab world.

• Mr. Trump's decision flouts international norms and consensus, and sets a dangerous precedent for nations involved in conflicts.

  * The modern international system is built on sovereignty, and every nation- state is supposed to be an equal player before international laws irrespective of its military or economic might.

  * The U.S., by recognising the sovereignty of Israel over a piece of land that the latter captured from Syria 52 years ago, is challenging this and normalising occupation.

• The decision also overlooks the wishes of the inhabitants of the territory.

  * Most of the Druze population that has been living in Golan for generations has resisted Israel's offer of citizenship and remained loyal to Syria. This they did even amidst Israel's settlement activities.

• This is a conflict that needs to be settled between Israel and Syria at some point of time under international mediation.

  * Mr. Trump is making the possibility of any future peaceful settlement difficult by recognising Israel's sovereignty

8. Hanoi Summit

Introduction

- For a country to develop nuclear weapons, it has to invest a substantial amount of resources and overcome a number of international hurdles. This means that there is always a set of clear objectives — security or political — behind the pursuit of these deadly bombs.

  * For North Korea and its dictator, Kim Jong un, the first objective is regime survival.

  * The second is to rupture the American alliances with Japan and South Korea.

  * The third one is to achieve Korean unification on its own terms.

- With this objective, the USA had to counter the move, protect its allies and prevent further Nuclear escalation. Therefore they imposed economic sanctions.

- This led suffocation in North Korea and they wanted addressal of the issue

- The US President Donald Trump hoped that he could sell a dream of prosperous North Korea to convince Mr Kim about the merits of denuclearisation.

Disagreement and abrupt end to the meeting

- In a press conference that followed the abrupt ending of the summit, Mr Trump informed that Mr Kim demanded the lifting of economic sanctions in their entirety.

- In return, North Korea did not agree to a comprehensive, verifiable, irreversible denuclearisation.

  * All it could offer was selectively giving up a few nuclear facilities (and not even the most important ones).

  * There was also a problem with sequencing. Mr Kim wants sanctions to be lifted before he makes any substantial progress on denuclearisation.

Concerns

- The abrupt end of talks between U.S. President Donald Trump and North Korean leader Kim Jong-un in Hanoi is clearly a setback to attempts to find a peaceful solution to the Korean nuclear crisis.

- The bonhomie between the two leaders after last year's Singapore summit was missing in Hanoi.

  * After the Singapore meet, both sides had agreed to have "new U.S.-DPRK [North Korea] relations" and establish a "lasting and stable peace regime" on the Korean peninsula.

  * North Korea had also promised to work toward "complete denuclearisation". No such comments about the future course of the peace process were issued this time

- This summit was taken over by Denuclearization but forgot the ruthless leadership of Kim, the charges of massive human rights abuses; the prison camps filled with dissidents; a near complete absence of media, religious and speech freedoms; the famine in the 1990s that killed hundreds of thousands; and the executions of a slew of government and military officials, including his uncle and the alleged assassination order of his half-brother in a Malaysian airport.

Why was the relationship not transforming into a fruitful exercise?

A part of the problem was the failure of both USA and North Korea in following up on commitments made in Singapore.

- A few weeks ahead of that summit in 2018, North Korea had announced a complete freeze on nuclear and missile tests as a reconciliatory gesture

  * It had asked the U.S. to reciprocate — its main demand was a formal declaration of an end to the 1950-53 Korean War, but the Trump administration refused to do so.

  * The first thing to know about the Korean War, which ran from 1950 to 1953, is that it was halted by an armistice, or truce, rather than a negotiated peace treaty. Strictly speaking, that means that the fighting might have ended, but the war did not.

- Lack of confidence-building measures too blunted the momentum created in Singapore.

- American intelligence community reported that North Korea continued its ballistic missile programme after the first Trump-Kim summit.

  * Intelligence reports surfaced that in addition to the principal nuclear facility (Yongbyon), North Korea had built another uranium enrichment facility at Kangson.

  * Another report indicated that though the Punggye-ri test site was shut, continued plutonium production and uranium enrichment during the last 12 months would have enabled North Korea to add up to seven devices to its existing arsenal estimated at 30 devices.

Conclusion

- Before the Hanoi summit, there were reports that the U.S. would declare an end to the Korean war and that both countries would open liaison offices in each other's capitals as part of normalisation of ties.

- They should go ahead with such measures and build confidence and mutual trust while also taking a phased approach to dealing with more contentious issues such as denuclearisation.

9. India – Croatia relations

Context

- President of India is on the State Visit to Croatia

Details

- During Mr Kovind's visit, India and Croatia signed four MOUs for cooperation in the field of tourism, Sports and also Establishment of the Hindi and Sanskrit Chair at University of Zagreb.

- He was honoured with Croatia's highest civilian award -- the Grand Order of the King of Tomislav.

    * The civilian order is awarded to heads of state for their important contribution towards the development of state relations between Croatia and their respective countries.

- Kovind, who is the first-ever Indian head of state to visit Croatia, was earlier accorded a ceremonial welcome here.

- The two Presidents agreed that it is necessary to strengthen economic cooperation, bilateral trade and mutual investments, in particular.

10. India-Indonesia Coordinated Patrol (Ind-Indo Corpat)

- The IND-INDO CORPAT Series of bilaterals seek to underscore India's peaceful presence and solidarity with friendly Maritime neighbours countries to ensure good order in the maritime domain, consolidate interoperability and strengthen existing bonds of friendship between India and Indonesia

- The CORPAT reflects the shared concerns between the two countries for a peaceful Indian Ocean for the benefit of international community.

11. Italy signs new 'Silk Road' protocol with China

Context

- Italy has signed a "non-binding" protocol with China to take part in Beijing's new "Silk Road" of transport and trade links stretching from Asia to Europe.

Details

Italy became the first G7 country to sign up for the massive project

- This will pave the way for Chinese investment in Italy's infrastructure, energy, aviation and telecommunications sectors.

- With annual trade between China and BRI countries projected to exceed US$2.5 trillion over the next 10 years, closer bilateral ties with China could give Italy's exports a boost.

- Italian exports to China currently total roughly €13-billion ($19.7-billion) a year, while imports are approximately €29-billion.

- Moreover, a partnership with China could attract the additional capital inflows that Italy sorely needs, given constrained lending by its banks.

    * PIIGS is an acronym for five of the most economically weak eurozone nations during the European debt crisis

    * Portugal, Italy, Ireland, Greece and Spain.

Arguments of the west

- BRI is a development strategy to provide overseas markets for Chinese firms, channel resources through international financial centres and support the international use of the renminbi.

    * The Italian economy is weaker: Public debt amounts to 130 per cent of GDP, and struggling enterprises, including the flagship airline Alitalia, need restructuring and recapitalizing. It is hard to see how a partnership with China could be balanced and reciprocal.

- Several years after China launched the BRI, its overall framework remains ill-defined, with murky objectives and opaque governance.

    * There are Chinese-led multilateral organizations, such as the Asian Infrastructure Investment Bank (AIIB) or the New Development Bank, which could have been used to engaged economically but the BRI is based on bilateral agreements with China and direct partnerships and joint ventures with Chinese enterprises, many of which are state-owned.

- Italy is institutionally weak, with many badly run private and public institutions, a dysfunctional tax system and widespread corruption.

    * The country ranks 53rd in Transparency International's corruption index, scoring well below the EU's core economies, meaning Italy may not be in a position to ask Chinese partners to comply with EU rules and standards.

- Cyberespionage and other mischief by Chinese actors could undermine the credibility of Italian companies in industries such as information and communications technology, infrastructure and defence.

- The US and big European countries are concerned it favour Chinese companies, creates debt traps for recipient states and is being used to further Beijing's strategic and military influence.

- It will probably damage its relations with the EU and the United States.

Conclusion

- With this move Italy falls to the Chinese Mission of connecting the world through its BRI, but it now the onus of Italy Govt not to fall into debt trap of Chinese

12. Langkawi International Maritime and Aerospace Exhibition (LIMA)

- It is a maritime and aerospace exhibition that takes place once every two years in Langkawi, Malaysia.

- The event is one of the largest maritime and aerospace exhibitions in the Asia-Pacific, and is focused mainly on the defence industry

Context

- Indian Air Force is participating in the Expo for the first time and it will showcase its indigenously developed LCA fighter aircraft.

- INS Kadmatt participated in numerous activities planned as part of LIMA

Details about ship

- INS Kadmatt is an indigenous stealth anti-submarine warfare corvette

- The ship is fitted with state of the art weapons, sensors and machinery and is also designed to embark the Seaking anti-submarine helicopter.

- The ship would participate in numerous activities planned as part of LIMA 19 for seven days at Langkawi, including the International Fleet Review (IFR) by the Prime Minister of Malaysia, maritime and air demonstration, and sea exercises with 29 other participating navies.

Significance

- Participation of Indian Air Force in LIMA - 2019 will provide an opportunity to air-warriors to interact with their Royal Malaysian Air Force counterparts and foster close relationship between the two services.

- This will also serve as a foundation for any future interaction with the Malaysian Air Force.

13. Mainamati Maitree Exercise

- Border Security Force (BSF) and Border Guards Bangladesh (BGB) conducted 'Mainamati Maitree Exercise 2019' as a part of 'Confidence Building Measures' between the two border guards.

- The exercise was named after a hill range situated 8 km west of Comilla township in Bangladesh, which is home to an ancient Buddhist archaeological site in the region.

- The main objective of this exercise was to plan and conduct anti-smuggling and anti-criminal activity related operations with ultimate aim of achieving better joint operational efficiency and border management in the area of responsibility of respective BSF and BGB Battalions participating in the joint exercise

- During the joint exercise, troops from both border guarding forces participated in joint patrolling, anti-smuggling drills on contraband goods through riverine border of River Gomati, simulated raids on suspected places of concealment inside territories of both countries, effective checking of goods and identity control of passengers at respective International Check-Posts (ICPs), holding flag meetings and other information sharing mechanism.

14. Mitra shakti

Context

- Exercise MITRA SHAKTI is conducted annually as part of military diplomacy and interaction between armies of India & Sri Lanka.

- This year's (2019) joint exercise will be conducted in Sri Lanka.

Details:

- Troops from 1st Battalion the BIHAR Regiment of the Indian Army and Gemunu Watch Battalion of Sri Lankan Army would be jointly undertaking the exercise.

- The aim of the exercise is to build and promote close relations between armies of both the countries and to enhance ability of joint exercise commander to take military contingents of both nations under command. The exercise will involve tactical level operations in an international Counter Insurgency and Counter Terrorist environment under United Nations mandate.

- Exercises MITRA SHAKTI-VI will go a long way in further cementing relationship between both the nations and will act as a catalyst in bringing synergy and cooperation at grassroots levels between both the armies.

15. MoU between India and Indonesia

Context

- The Union Cabinet has approved the signing of Memorandum of Understanding (MoU) between India and Indonesia on combating illicit trafficking in narcotic drugs, psychotropic substances and its precursors.

Salient features of the MoU:

- The MoU shall facilitate and enhance the cooperation between the two countries in combating illicit trafficking of narcotic drugs, psychotropic substances and its precursors as defined by the United Nations International Drug Control Conventions.

- The cooperation under this MoU includes

  * the exchange of information on existing legal instruments of national legislation of both countries in combating the illicit trafficking of narcotic drugs, psychotropic substances and its precursors,

* allowing and assisting each other in the use of controlled delivery operation with a view to identifying persons involved in illicit trafficking in narcotic drugs, psychotropic substances and its precursors and essential chemicals, prevention of money laundering.

- Under the MoU, there is a provision of maintaining the secrecy of information and documents obtained in accordance with this MoU.

Significance

- The MoU will help in mutual cooperation in the regulation of narcotic drugs and psychotropic substances and in combating drug trafficking.

16. Nehru, China, and the Security Council seat

What's in the news?

- Finance Minister Arun Jaitley recently blamed India's first Prime Minister, Jawaharlal Nehru, for favouring China over India for permanent membership in the UN Security Council.

- His statement obviously refers to Washington's feeler sent to New Delhi in August 1950 through the Indian Ambassador in the U.S., mentioning the American desire to remove China from permanent membership of the UNSC and possibly replace it with India.

- The assumption that Nehru was responsible for the lost opportunity is the result of the critics' inability to comprehend the complexity of the international situation in the early 1950s and the very tentative nature of the inquiry.

Understanding the Asian landscape during the Cold War

- During the early days of the Cold War, The People's Republic of China, had just emerged from a bloody civil war and was seen at the time as the Soviets' closest ally

- The PRC was prevented from taking its permanent seat in the UNSC because of American opposition premised on Cold War logic.

- Furthermore, war was raging in the Korean peninsula, with U.S. and allied troops locked in fierce combat with North Korean forces supported by China and the Soviet Union.

- Nehru was trying to carve a policy that ensured India's security, strategic autonomy and state-led industrialisation in these very dangerous times. He was well aware of the fact that pushing China out, as the U.S. wished to do, was a recipe for perpetual conflict that could engulf all of Asia.

- Nehru did not want India to get embroiled in hazardous Cold War conflicts and become a pawn in the superpowers' great game risking its own security.

- Nehru's approach to China was dictated by realpolitik and not wishful thinking. He understood that peace could not be assured in Asia without accommodating a potential great power like China and providing it with its proper place in the international system.

- Moreover, China was India's next door neighbour and it was essential for New Delhi to keep relations with China on an even keel and not fall prey to the urgings of outside powers, the U.S. foremost among them, which were following their own agendas that had nothing to do with Indian security interests.

Possible impact if India had taken up the 'so-called' American offer

- Nehru refused to consider the American feeler not because he was a wide-eyed Sinophile but because he was well aware that all Washington was interested in was to use India for its own ends.

- Had India accepted the American bait, it would have meant enduring enmity with China without the achievement of a permanent seat in the UNSC.

- The Soviet Union, then China's closest ally, would have vetoed any such move since it would have required amendment of the UN Charter that is subject to the veto of the permanent members.

- It would have also soured relations between India and the Soviet Union and made it impossible to establish the trust required to later build a close political and military relationship with Moscow that became necessary once the U.S. entered into an alliance relationship with Pakistan.

- The Indo-Soviet relationship paid immense dividends to India during the Bangladesh war of 1971.

- Jaitley and other critics of Nehru's eminently sensible decision not to fall into the American trap would do well to analyse the decision in the particular strategic and political context in which it was made and not allow their current political preferences to dictate their amateurish conclusions.

United Nations Security Council (UNSC)

- The UNSC is one of the six principal organs of the United Nations.

- It is charged with the maintenance of international peace and security as well as accepting new members to the United Nations and approving any changes to its United Nations Charter.

- Its powers include the establishment of peacekeeping operations, the establishment of international sanctions, and the authorization of military action through Security Council resolutions;

- It is the only UN body with the authority to issue binding resolutions to all member states of the UN.

17. Organisation of Islamic Cooperation (OIC)

Background

- India is not a member of the OIC, but was invited to the Abu Dhabi meeting as the guest of honour.

Sushma Swaraj addressing the meeting

- In a major diplomatic move, India hit out at Pakistan during a meeting of Foreign Ministers at the Organisation of Islamic Cooperation (OIC).

- In a speech at the inaugural plenary of the 46th session, External Affairs Minister Sushma Swaraj said the fight against terrorism and extremism does not amount to a clash of cultures and instead described it as a fight between ideas.

  * She presented India's pluralism and diversity as a source of strength and said Indian Muslims are a "microcosm" of India's larger diverse culture.

  * "If we want to save humanity, we must tell the states who provide shelter and funding to the terrorists to dismantle the infrastructure of the terrorist camps and stop providing funding and shelter to the terror organisations based in their country"

- Ms. Swaraj named countries like Saudi Arabia and Bangladesh for the support extended for building ties with OIC.

- The Minister also named Afghanistan, Indonesia, Brunei, Egypt, Iran, Tunisia and the African and Central Asian members of the OIC for maintaining historic and multi-layered ties with India.

Pakistan Boycotts

- In a strong statement, the Pakistan Foreign Minister protested the OIC's decision to grant a "guest of honour" status to India. Mr. Qureshi's letter argued India had no "legal or moral grounds" to be present at the meeting.

- Pakistan, one of the founding members of OIC, is upset that its insistence to keep India out was not heeded by other members of the group.

In the present atmosphere one question the needs answer is how was India able to achieve this feet of being invited to OIC.

Modi Administration's Diplomatic win

- PM Modi has been able to balance the apparent adversaries — Saudi Arabia and Iran, the United Arab Emirates and Qatar, Egypt and Turkey as well as Israel and Palestine.

- The real breakthrough under Modi is the transformation of India's engagement with the conservative Arab monarchies, especially the UAE and Saudi Arabia.

  * These two Muslim states have long been Pakistan's closest international partners.

  * Islamabad has flaunted ties to the UAE and Saudi Arabia as reflecting its special religious connect to the Middle East.

- Although India's expanding political ties with the UAE and the House of Saud go back a number of years, they have acquired a special strategic character under Modi.

  * The increasingly productive nature of this engagement comes from an unprecedented level of personal political comfort between Modi and the key leaders of the Arab world.

Why was India invited?

- Middle East has growing economic and energy interdependence with India, which is emerging as the world's third-largest economy and one of the biggest hydrocarbon importers and labour exporters.

- As the region's geopolitics enters a turbulent period, the potential for India as a military partner is also coming into view.

- That India has one of the world's largest Muslim populations, of course, is the immediate explanation of the surprising invite for Swaraj to address the OIC.

Conclusion

- The invitation to India, coming 50 years since 1969, after Pakistan compelled the OIC to disinvite India from the founding session, marks the emerging possibilities for India to break out this unfortunate legacy.

- Swaraj's participation in the Abu Dhabi ministerial, therefore, must be viewed as a diplomatic opening for a sustained and long-term political engagement with the Islamic world as a collective unit.

- A non-ideological and interest-based relationship suits both India and the conservative Islamic states in the Middle East.

18. **President of India visits Bolivia**

Context:

- In President of India visited Bolivia and this is the first ever high-level visit between India-Bolivia since the establishment of diplomatic relations.

Details:

- India agreed to provide US$ 100 million Line of Credit to Bolivia for financing development projects in sectors that Bolivia may choose. And also agreed to double training slots to 10 under Indian Technical Economic Cooperation programme to Bolivia.

- Both countries also agreed to work together for exploration and extraction of the vast Lithium deposits of Bolivia. Lithium is a key resource used in making of batteries that India needs for its clean technology initiatives such as increased use of electric cars.

- Eight MOUs that concern fields of culture, visa waiver for diplomats, exchange between diplomatic academies, mining, space, traditional medicine, establishment of Centre of Excellence in IT and the Bi-Oceanic Railway project

- President of Bolivia conferred the highest State Honour of Bolivia – Condor de los Andes en el Grado de Gran Collar – on President Ramnath Kovind.

- Bolivia signs the Framework agreement on International Solar Alliance.

About Bolivia:

- A landlocked Bolivia is the most isolated country in South America. The capital is Sucre while the seat of government and financial center is located in La Paz. It has the largest proportion of indigenous people, who make up around two-thirds of the population. The country has the second-largest reserves of natural gas in South America. The US Geological Service estimates that Bolivia has 5.4 million cubic tonnes of lithium, which represent 50%–70% of world reserves.

19. The Gulf as a channel of peace (International Relations)

- Experts have opined that there has been a significant activism of the Gulf countries to help defuse the current tensions between India and Pakistan.
- Media reports, for example, suggest that Saudi Arabia and the United Arab Emirates (UAE) pressed Pakistan to release Wing Commander Abhinandan Varthaman who was downed after a dogfight in the air with Pakistan Air Force recently.
- In the past, many parts of the Gulf and Middle East tended to act as Pakistan's strategic depth. For decades, shared religious identity and common approach to regional affairs gave Pakistan a political edge over India in the region.
- However, in recent years, Delhi has begun to correct that imbalance.

The Gulf Countries as a Diplomatic Lever:

- As many Gulf countries, especially Saudi Arabia and the UAE, develop stronger economic and security bonds with India, they could become potential allies in nudging Pakistan towards political moderation and regional accommodation in the Subcontinent.
- The precarious state of its economy and dependence on financial bailouts from the UAE and Saudi Arabia has made Pakistan more amenable to such an outcome.
- It is important to note that the security of the Indian Subcontinent and the Gulf region have always been inter-linked.
- The nature of that interdependence has, of course, varied over time and space.
- But independent India has tended to underestimate the importance of this strategic intimacy with the Gulf, thanks to Delhi's entrenched ideological approach to the Middle East.

A Brief Look at History:

1. Pre-Independence Perspective:

- In the colonial era, undivided India loomed large over the Gulf.

- During that era, the Raj offered security protection, a framework for commerce and some administrative support.
- The Gulf and other locations in the Middle East were critical links in the larger architecture of Great Britain's Imperial defence system in the eastern hemisphere centred on undivided India.
- The armies of India had to embark on repeated expeditionary operations in the Gulf and the Middle East through the 19th and early 20th centuries.
- The Indian army played a key role in the Middle Eastern theatre in both the World Wars.

2. Post-Independence Perspective:

- After Independence, India pulled out of any security role in the Gulf and the Middle East.
- Pakistan, however, joined the Anglo-American effort to replace the security vacuum created by the Indian withdrawal.
- It became a member of short-lived regional military alliance called the Central Treaty Organisation (CENTO). Its regional members included Pakistan, Iran, Iraq and Turkey. While India aligned with the nationalist and non-aligned governments like Egypt, Pakistan embraced conservative and pro-Western regimes.
- While CENTO did not survive, it provided the basis for Pakistan's external and internal security cooperation with a number of countries in the Gulf region.
- Some of them like Jordan, Iran and Turkey backed Pakistan during its wars with India in 1965 and 1971.
- It is important to note that as the Arab nationalist regimes steadily weakened in relation to the regional conservatives, India steadily lost political ground to Pakistan in the 1970s.
- Matters got worse in the 1980s as India remained silent on the Soviet occupation of Afghanistan and the Gulf regimes joined Pakistan in promoting jihad against the Soviet Union.
- Further, while India's energy and economic dependence on the Gulf grew, its political vulnerability was shockingly visible when Delhi's lone friend in the region, Saddam Hussein, invaded Kuwait and annexed it in 1990.
- As key countries in the region rallied behind the US to roll back Saddam Hussein's aggression, India scrambled to evacuate thousands of expatriates from the region. More significantly, India seemed unable to navigate the rapidly changing Middle East with its old slogans.

Perspective from the 1990's:

- The 1990s also saw Pakistan mobilise significant support within the Middle East, including at the OIC and other international forums, to castigate India's internal policies.

- As a matter of fact, the attack on the Babri Masjid and India's troubles in the Kashmir valley gave ample political ammunition to Pakistan.

- Paradoxically, the nuclear tests by India and Pakistan in May 1998 and the Kargil crisis in the summer of 1999, opened the possibilities for restructuring South Asia's relations with the Gulf.

- The strategic dialogue between Jaswant Singh and the US Deputy Secretary Strobe Talbott during 1998-2000 opened an influential new channel to the Gulf.

- More important, the US mobilised Saudi Arabia during the Kargil War to encourage Prime Minister Nawaz Sharif to accept the Indian demand to pull Pakistan's army back to the Line of Control. Sharif, fearful of the army chief Pervez Musharraf, wanted an American cover.

- The influential Saudi ambassador in Washington, Bandar Bin Sultan, arranged a meeting for Sharif at the White House with President Bill Clinton on July 4, 1999.

- Prince Bandar received Sharif at the Dulles Airport and prepared him for the meeting next morning with Clinton. After he signed the controversial agreement (in Pakistan) to restore the Line of Control in accordance with the Simla Agreement, Prince Bandar had a Saudi Royal accompany a nervous Nawaz Sharif back home.

Concluding Remarks: Events Post Kargil

- After Kargil, the NDA government brought a new self-confidence and intensity to the engagement with the Gulf and the Middle East.

- The fact that Jaswant Singh was the first Indian foreign minister to ever visit Saudi Arabia in late 2000, underlined how far Delhi and Riyadh had drifted in the decades before.

- The bilateral relationship with Saudi Arabia that steadily improved in the UPA decade, acquired a fresh momentum under Prime Minister Narendra Modi.

- Two decades ago, Jaswant Singh sought to lift the Pakistan constraint on the bilateral relationship with Saudi Arabia.

- Today the House of Saud is becoming a valuable partner for Delhi in promoting regional security in the Subcontinent and beyond.

20. UNSC blacklisting of Osama bin Laden's son

- Hamza bin Laden, the 30-year-old is the son of slain Al-Qaeda chief Osama Bin Laden

- United Nations Security Council's (UNSC) described Hamza as the "most probable successor" of Al Qaeda's present chief Ayman al-Zawahiri.

- Apart from the UNSC blacklisting, the United States government, as a part of its 'Rewards for Justice' programme, had also announced a bounty of $1 million for any information that leads to the capture of Hamza.

Background of Hamza

- The US-based Brookings Institution claims Hamza was with his father (Osama) in Afghanistan prior to 9/11 attacks.

- The institution also mentions that Hamza spent time with his father in Pakistan after the NATO invasion of Afghanistan in the aftermath of the September 11 attacks.

- In 2015, Hamza was introduced by Osama Bin Laden's successor Ayman al-Zawahiri in an audio message.

  * Hamza is seen as a fresh face with a younger voice, on whom Al Qaeda banks on to inspire the youth to join militancy.

Implications of Blacklisting

The blacklisting of Hamza would mean that he is subjected to a travel ban, freezing of assets along with an arms embargo

- The travel ban against Hamza implies that his entry or transit in any of the countries that are UN members will be not be allowed in accordance with the travel sanctions.

- When the UNSC Sanctions Committee freezes the assets of a targeted individual/entity, it is required that all United Nations member governments across the globe immediately freeze the funds, financial assets or any economic resources that come under direct or indirect ownership of the designated individual.

- In adherence to the arms embargo that prevents Hamza from acquiring arms and ammunition, all member countries are directed to block the channels that might directly or indirectly facilitate the sale of arms to the Al Qaeda leader.

- Non material support in the form of technical advice, assistance, logistic support, or training in relation to military activities to the designated terrorist by the citizens of UN member countries as well as via flag vessels or aircraft of these countries are also prohibited.

21. Venezuela Presidential Crisis

- A crisis concerning who is the legitimate President of Venezuela has been underway when the opposition-majority National Assembly declared that incumbent Nicolás Maduro's 2018 reelection was invalid and the body declared its president, Juan Guaidó, to be acting president of the nation.

Why is the presidency disputed?

- Nicolás Maduro was first elected in April 2013 after the death of his socialist mentor and predecessor in office, Hugo Chávez. At the time, he won by a thin margin of 1.6 percentage points.

- During his first term in office, the economy went into free fall and many Venezuelans blame him and his socialist government for the country's decline.

- Mr Maduro was re-elected to a second six-year term in highly controversial elections in May 2018, which most opposition parties boycotted.

- Many opposition candidates had been barred from running while others had been jailed or had fled the country for fear of being imprisoned and the opposition parties argued that the poll would be neither free nor fair.

- Mr Maduro's re-election was not recognised by Venezuela's opposition-controlled National Assembly.

Why is it all coming to a head now?

- After being re-elected to a second term in early elections in May 2018, Mr Maduro announced he would serve out his remaining first term and only then be sworn in for a second term on 10 January.

- The National Assembly argues that because the election was not fair, Mr Maduro is a "usurper" and the presidency is vacant.

Who is Juan Guaidó?

- Citing articles 233 and 333 of Venezuela's constitution, the legislature says that in such cases, the head of the National Assembly takes over as acting president.

- That is why Mr Guaidó declared himself acting president.

What has the reaction been?

- US President Donald Trump officially recognised Juan Guaidó as the legitimate president of Venezuela just minutes after the latter had said he would take over the executive powers.

- This met with a swift response from Nicolás Maduro, who has long said that the US is behind attempts to drive him from office.

How did Venezuela get this bad?

- It is President Maduro and his predecessor, the late President Hugo Chávez, who find themselves the target of much of the current anger.

- Their socialist governments have been in power since 1999, taking over the country at a time when Venezuela had huge inequality.

- But the socialist polices brought in which aimed to help the poor backfired.

- * Take price controls, for example. They were introduced by President Chávez to make basic goods more affordable to the poor by capping the price of flour, cooking oil and toiletries.

- * But this meant that the few Venezuelan businesses producing these items no longer found it profitable to make them.

How have Venezuelans reacted?

According to the United Nations, More than 2.3 million Venezuelans have left their country since 2014.

Venezuelans are fleeing their country for multiple reasons:

- Severe shortages of medicine, medical supplies, and food make it extremely difficult for many families to have access to the most basic health care and to feed their children.

- A ruthless government crackdown has led to thousands of arbitrary arrests, hundreds of prosecutions of civilians by military courts, and torture and other abuses against detainees.

- Arbitrary arrests and abuses by security forces, including by intelligence services, continue.

- Corruption, weak security, deteriorating infrastructure, overcrowding, insufficient staffing, and poorly trained guards allow armed gangs to exercise effective control over inmate populations.

- Extremely high rates of violent crime and hyperinflation are also key factors in many people's decision to leave the country.

- The Venezuelan government has jailed political opponents and disqualified them from running for office.

- President Hugo Chávez and his supporters in the National Assembly conducted a political takeover of the Supreme Court in 2004, the judiciary has ceased to function as an independent branch of government.

  - * Members of the Supreme Court have openly rejected the principle of separation of powers and publicly pledged their commitment to advancing the government's political agenda.

  - * The court has consistently upheld abusive policies and practices.

- The government has expanded and abused its power to regulate media and has worked aggressively to reduce the number of dissenting media outlets.

- The majority of those leaving have crossed into neighbouring Colombia, from where some move on to Ecuador, Peru and Chile. Others have gone south to Brazil.

How it has impacted other countries?

- Venezuela has caused the region to undergo a health regression. Hospitals and clinics in receiving countries have already collapsed, creating a huge strain on state and local healthcare systems.

- The biggest obstacle is not having enough human capital, supplies or financial resources to keep operations going.

Relief Efforts

- The US Agency for International Development (USAID) has pledged an upcoming $6 million (€5.2 million) in fresh funds to Colombia's government, to help needy Venezuelan refugees in its territory.

- Venezuelans at home have not benefitted from any of this assistance, as the Maduro regime has refused to acknowledge the gravity of the crisis, repelling humanitarian aid from international organizations with the argument that relief efforts are a pretense for military intervention against his regime.

Conclusion

- To effectively protect the rights of Venezuelans fleeing their country, states should ensure careful, individualized consideration of all asylum claims.

- Given the scale and complexity of Venezuelan migration within the region, governments should come together to adopt a collective and concerted response to it

SOCIAL ISSUES

1. **Govt. issues model guidelines for development & regulation of retirement homes**

   Context

   - Minister of State (I/C) for Housing and Urban Affairs has informed that the model guidelines for development and Regulation of Retirement Homes.

   The salient features of these Model Guidelines are:

   - Keeping in view the requirement of independent lifestyle choice, these Guidelines provides that any person can buy such apartments but has to be solely used by a senior citizen.

   - Resident of Retirement Homes will be any person who is 60 years of age or above.

   - Promoter/ Developer can build and manage the Retirement Homes or engage a 'Service Provider' or 'Retirement Home Operator' for management of Retirement Homes. Such Service Providers will be required to be registered with appropriate State Authorities.

   - To encourage participation of promoter/ developer to develop such projects enhanced Floor Area Ratio (FAR) is proposed.

   Instructions to be followed:

   - Elderly friendly design, gas leak detection systems, power back up facilities in corridors, lobby, lifts & apartments.

   - Compliance with green building principles & use of non-polluting & renewable energy.

   - 24×7 water & electricity supply, hygiene, indoor & outdoor recreation facilities, security & housekeeping, single window facilities & helpdesk, transportation assistance, yoga & fitness facilities, care giving facilities, etc.

   - 24×7 on-site ambulance service, mandatory tie up with nearest hospitals & pharmacy, medical emergency room, regular medical check-up of residents.

   - Customised services over & above basic common services also prescribed.

   - Retirement homes to be friendly for differently abled provision of lifts, signage & signalling systems mandatory

2. **India Urban Observatory & Video Wall**

   Context:

   - India Urban Observatory & Video Wall was inaugurated in Ministry of Housing and Urban Affairs (MOHUA)

Significance:

- As cities begin to implement 'smart' solutions, data becomes a significant asset and enabler for data driven Governance, leading to urban transformation, therefore Indian urban observatory will plug the myriad sources of data from cities, both from real-time and archival sources.

- The Observatory will help in getting reliable, up-to-date information on a meaningful set of indicators over various domains such as transport, health, environment, water, finance and so on, which will further assist in developing best practices, future strategies and policy interventions as and when required

- The India Urban Observatory is an important component of the recently launched Data Smart Cities strategy that envisions creating a 'Culture of Data' in cities, for intelligent use of data in addressing complex urban challenges. The strategy aims to lay down the basic premise, three foundational pillars People, Process, Platform, and a suggested roadmap for cities to improve their readiness for intelligent use of data.

- Video Wall, it will showcase the insights gained from the Observatory and the various Missions/ offices with the idea to proactively engage with citizens/ visitors in spreading awareness about the various initiatives.

3. **Nari Shakti Puraskar, 2018**

   Context

   - President of India presented the Nari ShaktiPuraskar 2018, the highest civilian honour for women in India on International Women's Day.

   Details:

   - To acknowledge women's achievements, the Ministry of Women and Child Development confers Nari Shakti Puraskaron women and institutions in recognition of their relentless service towards the cause of women empowerment and social welfare.

   - This year, 44 awardees have been selected for these Puraskar, out of around a thousand nominations received by the Ministry.

   - Awardees are scientists, entrepreneurs, environmentalists, social workers, farmers, artists, masons, woman marine pilot, woman commando trainer, journalists and film-makers and many others, who have faced their own unique challenges, but have not been deterred from achieving their dreams. The awardees have contributed in their unique ways to the society, impacting lives of people and are role models and inspirations to many others.

4. **National Women Livelihood Meet -2019**

Context

- National Women Livelihood Meet-2019 was held at Deendayal Hastkala Sankul in Varanasi, Uttar Pradesh, on International Women's Day.

Details:

- The Prime Minister saluted the spirit of 'Nari Shakti' on International Women's Day.

- He mentioned that the government is completely committed towards the empowerment of women.

- He mentioned about the various schemes initiated by the Union Government for the welfare of women and girl children, especially in the fields of health, nutrition, sanitation, education, skill development, self-employment, new gas connections and ensuring safety and security of women.

Initiatives by the government for Empowerment of Women:

- Maternity leave of six months introduced by the government, in India is one of the best in the world.

- Eleven crore out of the fifteen crore Mudra Loans given out so far, have been given to women.

- Pradhan Mantri Shram Maan-dhan Yojana, has been introduced to provide financial security during old age.

- Government is giving new energy to the Self Help Groups in terms of better bank loans and support system

- Government e-Marketplace (GEM) Portal launched by the government can be made use of, by the Self Help Groups to sell their products to the government.

5. **Rabha (Rava)**

- It is an indigenous Assamese community of the Indian states of Assam, Meghalaya and West Bengal.

- The language/dialect spoken by the Rabha people is mostly Assamese but in some areas, the Rabha dialect is also spoken

- The Rabhas belong to the Indo Mongoloid group of people

6. **Septic Tank Deaths**

Context

- The tragic death of six people who entered a septic tank in Tamil Nadu's Sriperumbudur town is a grim reminder that sanitation remains a low-priority area despite the high political profile of Swachh Bharat.

Background

- What sets the incident apart from the several instances of people dying of asphyxiation in the tanks is that some of the victims were the owners of the property and not workers.

- Three people collapsed while inspecting their residential septic tank, and others who tried to save them also perished.

- They died due to asphyxiation after inhaling toxic gas from the septic tank

Stats

- Since 1993, when the first law was passed against manual cleaning, there were at least 144 worker deaths in Tamil Nadu as of November 2018, according to official data

- Karnataka, Uttar Pradesh and Punjab also fared badly with a cumulative toll of 146 lives lost during that period.

- Safai Karmachari Andolan which has litigated in the Supreme Court seeking to aggressively prosecute offenders, contends that septic tank cleaning claimed nearly 1,500 lives between 2014 and 2016.

Why it continues to Persist?

- Public understanding of the science of managing septic tanks continues to be poor, and the availability of cheap labour to clean these structures has slowed efforts to develop technologies that can safely remove and transport the waste.

- State governments are reluctant to prosecute offenders,

- They are slow to adopt newer technologies such as Faecal Sludge Treatment Plants (FSTP), which can be combined with omniprocessors for safe treatment of waste.

Measures that can be taken

- For the task of cleaning the tanks, indigenous innovation in robotics looks promising. A prototype is planned to be tested by the Indian Institute of Technology Madras and such devices can potentially transform sanitation in India and other developing countries.

Conclusion

- Sanitation thus remains a challenge in thousands of unsewered towns.

- If governments remain apathetic, citizens would expect the courts to step in to uphold the law against manual scavenging and make individual departments accountable. The science on sanitation has advanced, and policy must urgently catch up.

7. **Women in the police**

Introduction

- Women constitute about 7% of the police strength in India.

- This number is expected to rise, with many States and Union Territories providing for 30% (and more) reservation for women in the police in specific ranks. However, this is not enough.

- The discourse on mainstreaming women in the police by making policing inclusive, non-discriminatory and efficient in India is missing in policy circles.

Steps to be taken

- One of the first steps to ensure a level playing field for women in the police is to increase their numbers. Merely providing reservation is not enough; police departments should develop an action plan to achieve the target of 30% or more in a time-bound manner. This also applies to States that have not provided a quota as yet.

  * Departments should also undertake special recruitment drives in every district to ensure geographical diversity.

  * To achieve the target, the police should reach out to the media and educational institutions to spread awareness about opportunities for women in the police.

  * Current data reveal that most women in the police are concentrated in the lower ranks. Efforts should be made to change this.

- Second, the model policy should strive to ensure that decisions on deployment of women are free of gender stereotyping to facilitate bringing women into leading operational positions.

  * At present, there appears to be a tendency to sideline women, or give them policing tasks that are physically less demanding, or relegate them to desk duty, or make them work on crimes against women alone.

  * Women police officers should be encouraged to take on public order and investigative crimes of all types, and should be given duties beyond the minimum mandated by special laws.

  * Desk work too must be allocated evenly among men and women.

- A major burden of family and childcare responsibilities falls on women. Yet, police departments still lack proper internal childcare support systems.

  * Departments need to be mindful of this social reality and exercise sensitivity in making decisions on transfers and posting of women personnel. As far as possible, women should be posted in their home districts in consultation with supervising officers.

- Most State police departments have received funds under the Modernisation of State Police Forces Scheme for providing separate toilets and changing rooms for women, and for constructing separate accommodation for women with attached toilets in all police stations and units. Police departments must ensure the best use of this fund.

- Police departments must also ensure safe working spaces for women and adopt a zero-tolerance policy towards discrimination and harassment, in order to make policing a viable career option for women.

  * Departments are legally bound to set up Internal Complaints Committees to prevent sexual harassment at the workplace.

  * Departments must operationalise the Sexual Harassment of Women at Workplace (Prevention, Prohibition and Redressal) Act of 2013.

SCIENCE AND TECHNOLOGY

1. BARC

Context:

- Dr. A.K. Mohanty, Distinguished Scientist and Director, physics group of the Bhabha Atomic Research Centre (BARC) and Director, Saha Institute of Nuclear Physics, Kolkata took over as Director, BARC.

About BARC:

- Homi Jehangir Bhabha conceived the Nuclear Program in India. Dr Bhabha established the Tata Institute of Fundamental Research (TIFR) for carrying out nuclear science research in 1945.

- To intensify the effort to exploit nuclear energy for the benefit of the nation, Dr Bhabha established the Atomic Energy Establishment, Trombay (AEET) in January 1954 for multidisciplinary research program essential for the ambitious nuclear program of India.

- After the sad demise of Bhabha in 1966, AEET was renamed Bhabha Atomic Research Centre (BARC).

Motto: Atoms in the service of the Nation.

Headquarters: Trombay, Mumbai, Maharashtra

Parent Organisation: The Department of Atomic Energy (DAE) is a department directly under the Prime Minister of India.

Atomic Energy in India:

- Atomic Energy has a key role in reducing the carbon intensity of the overall Power sector of India.

- Coal-based thermal power contributes 186,293 MW (July 2016), 61% of the total installed power while renewables and nuclear contribute 44,237 MW (14.5%) and 5,780 MW (1.9%) respectively.

- While renewable sources of energy are environment friendly, they are intermittent sources of power. Nuclear power, being a non-intermittent and concentrated source of power with negligible carbon footprint, is an essential component of the Indian power-mix to meet the International environmental commitments of India.

2. Belle II

- It is a particle accelerator experiment located in Tsukuba, Japan

- Here, electrons and positrons (anti-electrons) collide to produce B mesons in order to study the breakdown of symmetry in these decays.

- The focus at Belle II is on B-mesons — particles that contain the B-quark, also known as the beauty or bottom quark.

- The focus is on the differences between the decay of the B-mesons and that of their antiparticles, the anti B-mesons.

- This experiment is designed to study violations of the Standard Model and dark matter.

Significance

- At the time of the Big Bang some 13.7 billion years ago, the universe was in a fully symmetric state with equal quantities of matter and antimatter. With time anti-particles have somehow disappeared

- Today, we are in this extremely antisymmetric state.

- This experiment studies on this aspect of antisymmetric state and how the universe evolved to the present state

India's Contribution

- Belle-II has a significant Indian participation both on experimental and theoretical sides.

- The fourth layer of the six-layer, highly sensitive particle detector, which is at the heart of Belle-II, has been built by Indian scientists with the Tata Institute of Fundamental Research (TIFR), Mumbai.

- Scientists from the Indian Institutes of Technology (IITs) in Bhubaneswar, Chennai, Guwahati and Hyderabad; the Institute of Mathematical Sciences (IMSc), Chennai; Punjab University; Punjab Agricultural University; MNIT (Malaviya National Institute of Technology), Jaipur; IISER (Indian Institutes of Science Education and Research) Mohali; are participating in this research

3. Biomedical Research Career Programme

Context

- The Union Cabinet has approved the continuation of the Biomedical Research Career Programme (BRCP)

Details

- It is an Alliance between Department of Biotechnology (DBT) and Wellcome Trust (WT)

  * The Wellcome Trust is an independent charity funding research to improve human and animal health.

  * Established in 1936 and with an endowment of around £15 billion, it is the largest non-governmental source of funds for biomedical research in the United Kingdom.

- The Programme will fulfill objectives of building and nurturing talent of highest global standards in cutting-edge biomedical research in India, which has led to important scientific breakthroughs and applications to meet societal needs.

- BRCP will make it attractive for high quality Indian scientists working abroad to return to India, and has increased the number of locations geographically within India where world-class biomedical research is undertaken.

- The Programme would continue to build this capacity as also strengthen clinical research and work towards addressing important health challenges for India.

4. Emisat mission / PSLV-C45

Context:

- India's Polar Satellite Launch Vehicle (PSLV), in its 47th mission (PSLV-C45), will launch EMISAT, the primary satellite and 28 international customer satellites from Satish Dhawan Space Centre (SDSC) SHAR, Sriharikota.

- This will be the first time ISRO attempts to place satellites in three different orbits in a single satellite launch mission

Details

- It is a powerful Electronic Intelligence/Surveillance Satellite — developed jointly by the Indian Space Research Organisation (ISRO) and DRDO

- It is understood that EMISAT will be used for Electronic Signals Intelligence (ELINT).

- EMISAT has been developed which will provide location and information of hostile radars placed at the borders.

    * ISRO will likely place EMISAT in a highly elliptical orbit, also called a signature SIGINT orbit, after its launch on the PSLV-QL, a new variant in the PSLV family.

    * This gives satellites the maximum amount of time to record high-resolution signals from a specific area.

- The satellite is intended for electromagnetic spectrum measurement.

How does EMISAT work?

- EMISAT is modelled after a famous Israeli spy satellite called SARAL (Satellite with ARgos and ALtika). Both these satellites have the SSB-2 bus protocol — the core component for their sharp electronic surveillance capabilities across the length and width of a large country like India

- EMISAT also has a special altimeter (a radar altitude measuring device) called 'AltiKa' that works in the Ka-band microwave region of the spectrum. The electronic surveillance payload of EMISAT was developed under a DRDO's project called KAUTILYA.

- The main capability of EMISAT is in signal intelligence — intercepting signals broadcasted by communication systems, radars, and other electronic systems.

- The Ka-band frequency that EMISAT is sensitive to, allows the 436-kg EMISAT — India's newest spy in the sky — to scan through ice, rain, coastal zones, land masses, forests and wave heights with ease.

5. Gaia

- It is a space observatory of the European Space Agency (ESA), launched in 2013

- Its major objective is to learn about origins and the evolution of the Milky Way, specifically by creating a 3D map of 1 billion stars.

- Gaia is located at a Lagrange point, a gravitationally stable spot in the sun-Earth system, called L2, which is located about 930,000 miles (1.5 million kilometers) from Earth in the opposite direction from the sun

- Seeking out exploding stars (supernovas) before they reach maximum brightness.

- Searching for asteroids all over the solar system, ranging from near the Earth, to the asteroid belt between Mars and Jupiter, to the icy region of objects beyond Neptune (which is called the Kuiper Belt.)

6. Gale Crater

- Gale is a crater, and probable dry lake, on Mars near the northwestern part of the Aeolis quadrangle

- The crater was named after Walter Frederick Gale, an amateur astronomer from Sydney, Australi

- Aeolis Mons is a mountain in the center of Gale

Context

- NASA's Curiosity rover mission recently determined that background levels of methane in Mars' atmosphere

- Though the gas can be produced by a variety of geological processes, the vast majority of methane in Earth's air is pumped out by microbes and other living creatures.

7. GRAPES-3 (Gamma Ray Astronomy PeV Energies phase-3)

- It is designed to study cosmic rays with an array of air shower detectors and a large area muon detector

- Objectives of the GRAPES-3 Experiment Study of The origin, acceleration and propagation of cosmic rays in the galaxy and beyond.

- It is located at Ooty in Tamilnadu

- The 'Grapes-3 muon telescope' is a sensitive instrument operated by the Cosmic Ray Laboratory (CRL) in Ooty, as a collaboration of several institutes and universities from Japan and India.

Lightning Strikes

- The lightning strikes that kill lives in a flash are caused by high voltage in thunderstorms. But, the actual voltage produced in the thunderstorms has been shrouded in mystery up until now.

- This mystery remained unresolved because the technology needed to measure this extra-terrestrial high voltage phenomenon was lacking all of these years.

- Though scientists of yesteryear made valiant attempts, the cutting-edge instrument needed for measuring the thunderstorm voltage was missing for nearly a century.

How it detects?

- Muons and other particles are produced when cosmic rays bombard air particles surrounding the earth. The muons produced can have positive or negative charge.

- When a positively charged muon falls through a cloud, it loses energy. If its energy falls below 1 giga electron volt (GeV), which is the threshold of detection of the GRAPES-3 muon telescope, it goes undetected.

- On the contrary, a negatively charged muon gains energy when falling through the cloud and gets detected.

- Since there are more positive than negative muons produced in nature, the two effects don't cancel out, and a net change in intensity is detected.

Significance

- Learning about the properties of thunderclouds can be useful in navigation of aircraft and preventing short circuits.

8. **KIRAN (Knowledge Involvement in Research Advancement through Nurturing)**

- In the year 2014, Department of Science & Technology (DST) reframed all the women specific programmes under one major scheme known as "KIRAN".

- KIRAN is addressing various issues/challenges related to gender parity in S&T sector.

- It includes enhancing opportunities in research/ technology development/technology demonstration/self-employment etc; and providing support to Women Universities for state-of-the art facilities in Science & Technology.

- Under the scheme, 20 Women Technology Parks have been established which act as windows for providing information, creating awareness, giving training for appropriate technologies leading to skill up gradation.

- More than 2100 Women Scientists have been brought back in to main stream science through Women Scientists Scheme.

- Around 100 projects have been supported in last 5 years under 'Science & Technology for Women' to improve the living conditions of women by reducing their drudgery, improving health and environment and by providing opportunities for income generation.

9. **Lunar Reconnaissance Orbiter (LRO)**

Context

- NASA's Lunar Reconnaissance Orbiter (LRO) spacecraft has observed water molecules moving around the dayside of Moon

Details

- Lunar Reconnaissance Orbiter (LRO) is a NASA robotic spacecraft currently orbiting the Moon

- Data collected by LRO has been described as essential for planning NASA's future human and robotic missions to the Moon

  * Identify potential lunar resources

  * Gather detailed maps of the lunar surface

  * Collect data on the moon's radiation levels

- Lyman Alpha Mapping Project (LAMP) -- the instrument aboard LRO -- measured sparse layer of molecules temporarily stuck to the Moon's surface, which helped characterise lunar hydration changes over the course of a day

Uses of lunar water

- Lunar water can potentially be used by humans to make fuel or to use for radiation shielding or thermal management

Source of Moon's surface water

- Scientists had hypothesised that hydrogen ions in the solar wind may be the source of most of the moon's surface water

10. **OSIRIS REx**

- OSIRIS-REx is an acronym for "Origins, Spectral Interpretation, Resource Identification, and Security-Regolith Explorer."

- The mission is to study asteroid 101955 Bennu, a carbonaceous asteroid (formerly designated 1999 RQ36) and in 2023 to return to Earth a sample for detailed analysis.

- Bennu, which is only slightly wider than the height of the Empire State Building, may contain unaltered material from the very beginning of our solar system.

- OSIRIS-REx will provide a greater understanding of both the hazards and resources in near-Earth space and will be a major advance in our continuing exploration of asteroids and other small bodies in the solar system.

Why Bennu?

- Accessibility for Sample Return: The closest asteroids to Earth are called Near-Earth Objects (NEOs) that come within 120 million miles (1.3 Astronomical Units or AU) of the sun.

  * AU is the average distance between Earth and the sun, equal to about 93 million miles (150 million kilometers).

  * For a sample return mission like OSIRIS-REx, the most accessible asteroids for a spacecraft to reach are located between 149 million miles (1.6 AU) and 74 million miles (0.8 AU).

* The most accessible asteroids also have an Earth-like orbit — one that is fairly circular and has a low inclination – an orbit in nearly the same plane as that of Earth.

* Bennu has such an orbit, ranging from 0.9 to 1.4 AU from the sun and an inclination only 6° different than Earth's.

• Enabling Proximity Operations and Sample Collection Asteroids with small diameters generally rotate more rapidly than those with large diameters. With a diameter less than 650 feet (200 meters), an asteroid can spin fast enough that the some of the material on its surface can be ejected.

* Furthermore, it is difficult to match the rotation of a rapidly rotating asteroid while conducting close proximity operations with a spacecraft.

* The better asteroid destination has a diameter larger than 650 feet (200 meters) so that a spacecraft can safely come into contact with it and collect a sufficient sample of surface material.

* Bennu, with a diameter of 1,614 feet (492 meters), takes just over 4 hours to rotate once (this is the length of a day on Bennu), which is slow enough to allow OSIRIS-REx to execute its mission.

• Carbon-rich Composition: Asteroids are categorized into different types based on their chemical composition as inferred from telescopic observations. The most primitive asteroids are carbon-rich and are believed to have not significantly changed since they formed over 4.5 billion years ago.

* These asteroids could contain volatiles and organic molecules such as amino acids that may have contributed to the formation of life on Earth and are important factors in determining the potential for life elsewhere in the solar system.

* Telescopic measurements suggest that Bennu's surface is indeed rich in carbon. Astronomers call Bennu a "B-type" asteroid, suggesting it has a composition similar to meteorite known as "carbonaceous chondrites," which as their name suggests, are rich in carbon compounds.

* Only a handful of known asteroids share these properties of accessibility, size, and composition. This makes Bennu the best choice for OSIRIS-REx's destination asteroid.

Scientific Significance

• Asteroids are the remnants of the original building blocks of our solar system.

• Knowledge of the nature of asteroids is fundamental to understanding planet formation, the solar system, and the origin of life.

• The return to Earth of pristine samples with known geologic context will enable precise analyses that cannot be duplicated by spacecraft-based instruments or by laboratory analysis of meteorites.

• The mission will allow researchers to better evaluate hazards and resources in the inner solar system.

Context

• Evidence of water, particle plumes found on asteroid Bennu: NASA

11. Potassium Nitrate

• KNO3 is a chemical compound with chemical name Potassium Nitrate.

• It is also called as nitre or saltpeter.

• It contains potassium (a soft, light, and silver metal), oxygen, and nitrogen (a colorless and odorless gas).

• It is an alkali metal nitrate because it is an ionic salt of potassium ions K+ ions and nitrate ions NO3–.

• It is solid white in color or sometimes white to dirty gray in color. Potassium nitrate is soluble in hot water.

Uses

• It is used as a form of fertilizer as it contains all the macronutrients needed for the plants to grow.

• It is used as gunpowder in explosives such as bombs, grenades, etc.

• It has medicinal applications such as a diuretic in medicine

• Used in toothpaste to make the teeth less sensitive to pain

• Used in the food industry to preserve meat against microbial agents

Context

• The Kolkata Police Special Task Force (STF) recovered 1000 kilograms of potassium nitrate used to make explosives

SECURITY AND DEFENSE

1. Abhedya - Nuclear, Biological, Chemical Training Facility

Context

- It was inaugurated by Admiral Sunil Lanba, the chief of naval staff, at INS Shivaji at Lonavla near Pune

Details

- Abhedya meaning 'impenetrable', symbolising the protective cover that is provided on naval ships which are fitted with nuclear, biological and chemical detection and protection systems.

- The facility will provide realistic training to naval personnel in detection, protection against and decontamination of nuclear, biological and chemical agents

2. Arms Import of India

Context

- A Sweden-based think tank Stockholm International Peace Research Institute (SIPRI) released the data about Arms import in their annual report. The assessment was done for a five-year period (2014-2018).

- Titled 'Trends in International Arms Transfers-2018', it says, "India was the world's second largest importer of major arms in 2014-18 and accounted for 9.5 per cent of the global total."

Details

- Russia accounted for 58% of Indian arms imports in 2014–18, compared with 76% in 2009-13.

  * However, the Russian share in Indian imports is likely to sharply go up for the next five-year period as India signed several big-ticket deals.

  * These include S-400 air defence systems, four stealth frigates, AK-203 assault rifles, a second nuclear attack submarine on lease, and deals for Kamov-226T utility helicopters, Mi-17 helicopters and short-range air defence systems.

- Israel, the U.S. and France all increased their arms exports to India in 2014-18.

- Indian imports decreased by 24% between 2009-13 and 2014-18, partly due to delays in deliveries of arms produced under licence from foreign suppliers, such as combat aircraft ordered from Russia in 2001 and submarines ordered from France in 2008

Defence deal
A look at the global share of arms bought by the 10 largest importers from 2014-2018

- Saudi Arabia 12%
- India 9.5%
- Egypt 5.1%
- Australia 4.6%
- Algeria 4.4%
- China 4.2%
- UAE 3.7%
- Iraq 3.7%
- Others 47%
- Vietnam 2.9%
- South Korea 3.1%
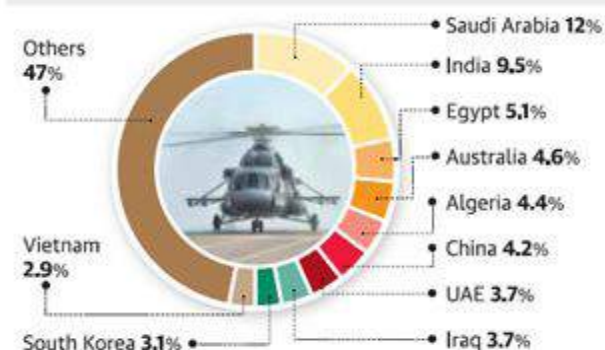
Pakistan at 11th

- Pakistan stood at the 11th position accounting for 2.7% of all global imports.

- Its biggest source was China, from which 70% of arms were sourced, followed by the U.S. at 8.9% and, interestingly, Russia at 6%.

Global Picture

- Globally, the volume of international transfers of major arms in 2014-18 was 7.8% higher than in 2009-13 and 23% higher than in 2004-2008.

- The five largest exporters in 2014-18 were the United States, Russia, France, Germany and China together accounting for 75% of the total volume of arms exports in 2014-18.

- China has emerged as a major arms exporter, has increased its share by 2.7% for 2014-18 compared to 2009-13. Its biggest customers are Pakistan and Bangladesh.

Tejas and Kaveri projects

Background

- At the Aero-India 2019 airshow and aviation exhibition, held in Bengaluru there were two developments of significance:

- Light Combat Aircraft (LCA) Tejas Mark 1, received its long-awaited Final Operational Clearance; this means it is combat-ready and can be exploited to the limits of its approved 'envelope'.

- DRDO announced at the show of its decision to shelve the Kaveri turbo-jet engine project.

Kaveri

- It is engine designed and developed by DRDO for Jet Aircrafts

- The project for development of Kaveri Engine was sanctioned in 1989 with probable date of completion of 1996, which was extended to 2009. Government has further approved its continuation within the cost ceiling.
- The aero engine developed by DRDO has not achieved the required thrust to power Light Combat Aircraft (LCA).

The following are some of the major reasons for non-completion of project within the time-schedule

- Technological difficulties faced during development due to complexities of engine system.
- Non-availability of raw materials/critical components
- Lack of infrastructure/manufacturing/test facilities within the country
- Non-availability of skilled/technical manpower in the field of aero-engine technology
- It is obvious that the onus for repeated setbacks in these projects must lie squarely on India's political leadership; for its neglect as well as absence of a vision for the aeronautical industry.
- There are three more factors:
  * over-estimation by the DRDO of its capabilities compounded by a reluctance to seek advice;
  * inadequate project management and decision-making skills of its scientists; and
  * Exclusion of users — the military — from all aspects of the projects.

Concerns

- The Hindustan Aeronautics Limited's sleek and elegant HF-24 Marut fighter, of the 1960s and 1970s, failed to achieve its huge potential as a supersonic fighter for want of a suitable engine.
  * Rather than exert itself to seek alternatives, the government of the day, with stunning myopia, closed the programme.
- Similarly, many of the problems the Tejas faced emanate from lack of engine thrust.
  * Even as the Kaveri has failed to make an appearance, U.S.-made alternatives such as the General Electric F-404 engine, or even the more powerful F-414, do not deliver adequate thrust for the Tejas Mk 1, to meet all its missions.
  * For the Tejas Mk IA, Mk II, the LCA Navy, and other aircraft programmes such as the Advanced Medium Combat Aircraft, India will need turbo-jet engines of even greater thrust.
  * Thus, it is vital for India to develop a family of homegrown jet engines to power indigenous combat aircraft as well as re-engine imported ones.

- Until India can design and produce its own aero-engines, the performance and capabilities of any indigenously designed/built aircraft will be seriously limited by the technology that we are permitted to import.

Way forward

- It is necessary to recognise that both the Tejas and Kaveri projects form key components of India's technological aspirations
- Unless carefully guided, protected and nurtured, their failure could spell the end of India's aeronautical industry, or condemn it forever to licensed production.
- A long production run of, say, 250-300 aircraft for the Tejas and its advanced derivatives is essential if the industry is to hone its design and production skills.

Conclusion

- It is still not too late for the government to declare both these projects as 'national missions' and initiate urgent remedial actions. The success of both the Kaveri and Tejas programmes will transform the aerospace scene, and put India in the front ranks of aeronautical nations, if the desired degree of resolve and professional rigour can be brought to the fore. If we miss this opportunity, we will remain abjectly import-dependent forever in this vital area.

3. **BOLD—QIT project**

Concerns

- The Union Home Minister inaugurates the project BOLD-QIT (Border Electronically Dominated QRT Interception Technique) under CIBMS (Comprehensive Integrated Border Management system) on India-Bangladesh border in Dhubri District of Assam.

Details about BOLD-QIT:

- In 2018, Information and Technology Wing of BSF undertook the project BOLD-QIT (Border Electronically Dominated QRT Interception Technique) and completed it in record time with the technical support of various manufacturers and suppliers.
- BOLD-QIT is the project to install technical systems under the Comprehensive Integrated Border Management System (CIBMS), which enables BSF to equip Indo-Bangla borders with different kind of sensors in unfenced riverine area of Brahmaputra and its tributaries.
- Now, the entire span of River Brahmaputra has been covered with data network generated by Microwave communication, OFC Cables, DMR Communication, day and night surveillance Cameras and intrusion detection system.
- These modern gadgets provide feeds to BSF Control Rooms on the Border and enable BSF Quick Reaction Teams to thwart any possibility of Illegal Cross Border Crossing/ Crimes.

- The implementation of this project will not only help BSF to curb all type of cross border crimes but also provide respite to the troops from round the clock human surveillance.

4. Chinook Helicopters

Context

- Four heavy lift first four CH-47F (I) Chinook helicopters were inducted in the Indian Air Force, at Air Force Station, Chandigarh, in Squadron No 126 Helicopter Flight

Details

- It has the proven ability to operate in different terrains and conditions.
- It has the capability to airlift the M777 lightweight howitzers that have been inducted in the Indian Army's Artillery last year.
- Chinooks have a payload capacity of about 10 tonne. These helicopters are expected to lift artillery, vehicles, road construction and engineer equipment as well as troops and supplies to mountainous sectors.
- The Chinook replaces the Russian Mi-26 in the heavy lift class
- The Chinook, with its distinctive double rotor, one at each end of the helicopter, is arguably the world's most recognisable helicopter.

Significance

- These multi-role helicopters are going to be used in life-saving role during HADR (humanitarian assistance and disaster relief) missions, for which the fleets are often pressed into services.
- It will boost artillery fire support by quickly transporting the M777 ultralight howitzer from one deployment area to another, slung by cables under the helicopter's belly.
- In addition, the Chinook can quickly transport troops to a threatened sector, with up to 50 soldiers squeezed into each helicopter.
- Suited for mountain operations, the Chinook is highly maneuverable and can get in and out of tight valleys.

5. Combat Casualty Drugs

- These are drugs developed indigenously by Institute of Nuclear Medicine and Allied Sciences, a laboratory of the Defence Research and Development Organisation
- It will help in extending the golden hour of the soldier till the trooper is shifted to hospital when he is gravely succumbed to Injuries
- The spectrum includes bleeding wound sealants, super absorptive dressings and glycerated salines, all of which can save lives in the event of warfare in jungle and high altitude areas as well as in terror attacks

Glycerated Saline

- Among the drugs developed is glycerated saline, a battlefield intravenous fluid that does not freeze till -18 degrees Celsius and is useful in handling trauma cases in high altitude areas
- Glycerated saline, unlike normal saline, reduces inflammation.
- Glycerated saline has lifesaving capacities as it gives more time to the medical personnel to shift the wounded patient to a higher care facility

Chitosan Gel

- It helps in preventing blood loss by forming a film over the wound.
- Coupled with platelets and red blood cells aggregation, it stops the bleeding. Its antibacterial and wound health properties are of added benefit.
- Chitosan gel is suitable for sealing wounds by twin action: haemostasis by chemical action and filing action. It can be used for wounds on the limbs and also cavities such as abdomen and thorax
- The gel is poured onto the wound and held with physical pressure for few minutes till the bleeding stops

Hypo Cholorous Acid (HOCL)

- It is a disinfectant for troopers involved in jungle warfare.
- It is helpful in treating necrotising fascitis, a rapidly progressing bacterial infection of soft tissues.
- Bacterial toxins cause local tissue damage and necrosis, as well as blunt immune system responses.
- In such cases, pure 0.01 per cent HoCL has both broad-spectrum antimicrobial activity and can rapidly neutralise bacterial toxins

Significance

- These medicines will ensure that our brave soldiers do not suffer from unwanted blood loss while being taken to a better healthcare from war zones

6. Diplomacy is the Way Forward after Pulwama

Context

- The Indian Govt had initiated military action as retaliation to the terrorist attack at Pulwama by engaging the Indian Air Force (IAF)
  * Indian fighter jets crossed the Rubicon to launch pre-emptive bombing raids against terrorist camps run by Jaish-e-Mohammed in Balakot.
- The article here discusses about how the Govt needs to engage with the civil society after an attack

Immediate Response

- First, many, including the national leaders from the opposition, congratulated the Indian armed forces for their action. On the ruling front, as expected, Operation Balakot, as it has been officially named, has immediately generated a sense of triumphalism among the members of the government and its supporters.

- Second, action by the IAF in Pakistan has also been seen by many as a resolute indication of a unity of minds, of both the government mind and the public mind sharing the same desire to teach the attacker a lesson in order to avenge humiliation.

Civil society wearing the robes of think tank

With the dastardly act of violence perpetuated by the terrorists, the general Public immediately took the role of Think tanks suggesting the Govt what steps it needs to take. There was outburst of emotions suggesting war, aggression, courage, and fearlessness. It is here that two questions rise

- What is the guarantee that the public mind with a combative quality would work only outwardly, against external threats, and not inwardly, against its fellow members of civil society?

- Second, is it not the democratic function of the government in power in the embattled countries to demobilize its citizens who are in a combative mood?

This makes it necessary to determine the combative quality of the public mind and what its consequences are for the prospect of peace and harmony, both in society and between nations.

Analysis

- Militarisation is a process through which civil society produces either the conditions for violence, or its actual articulation.

- The objective of civil society is to perpetuate non-violence and the democratic norms of tolerance and being reasonable to each other.

- The members of civil society are expected to keep in mind that defence forces have their own reasoning for dealing with external threat in terms of strategy, planning, and diplomacy.

- Civilians are not expected to take on this role of the defence forces. However, members of civil society seem to have crossed their limits in that they are suggesting to the defence forces reasons as to why war is the only option.

- They have not stopped at this and have gone on to find reasons for turning their "nationalist" anger towards their fellow members of society.

What should the Govt do?

- Combative nationalism leads to a vicious reproduction of "national humiliation," which, for its resolution, leads to an acute urge for revenge and retaliation.

- The urge to take revenge, thus, remains alive all the time and on both sides of the border.

- The governing class in both India and Pakistan needs to take the responsibility to temper the combative mind, wherever it is present and whenever it raises its head.

- In a peace-loving democratic country, there are limits to triumphalism. And, the government in such a country is expected to see to it that the citizens do not imbibe or cultivate this sense of triumphalism.

- The history of war has shown us that militarization tends to overwhelm humanistic values.

Way Forward

Indulgence in war, however, without fully exhausting the diplomatic option, is fundamentally flawed. Taking risks without thorough calculations is not a wise course to pursue. Machoism is not the only means available to change the "rules of the game" with Pakistan. The current impasse cannot be resolved by more military action. Constant conditions of tension and conflict only lead to discontent and are not conducive to peaceful existence.

- Our strategic consciousness must explore hitherto unexplored geoeconomic connectivity options to break the logjam in India–Pakistan relations.

- It cannot be over emphasized that diplomacy must be the means of negotiating peace and safeguarding interests.

- Both countries must now increase their diplomatic efforts to restore normalcy.

- The diplomatic process in India and Pakistan would offer both the countries an opportunity to attend to their respective internal questions and adopt self-reflective attitudes to answer those questions

7. **High Court notice to Centre on Jamaat-e-Islami ban**

Jamaat-e-Islami:

- An Islamic-political organisation and social conservative movement, Jamaat-e-Islami (JeI) was founded during British India in 1941 by Abul Ala Maududi, an Islamic theologian and socio-political philosopher. Along with the Muslim Brotherhood, (Ikhwan al-Muslimin, founded in 1928 Egypt), JeI was a first of its kind organisation to develop "an ideology based on the modern revolutionary conception of Islam."

- Following the partition of India in 1947, JeI split into separate independent organisations in India and Pakistan—Jamaat-e-Islami Pakistan and Jamaat-e-Islami Hind—respectively.

- Jamaat-e-Islami J&K was separated from its parent organisation (Jamaat-e-Islami Hind) in 1953 over differences in political ideology.
- The party, with pro-Pakistan leaning during the Plebiscite Front days and also during the eruption of militancy, pitches itself as socio-religious organisation working mainly in the field of education and awareness about Islam.
- The Jamaat-e-Islami was an influential founder member of the undivided Hurriyat Conference from its inception in 1993 till 2003, when the amalgam suffered a vertical split led by Syed Ali Shah Geelani over alleged proxy participation in 2002 Assembly polls by some leaders of the People's Conference led by Sajad Gani Lone.
- The Jamaat withdrew from the Hurriyat and decided to focus on its social work while maintaining its separatist stand on Kashmir issue.

Background:

- The JI was first banned in 1975 during the emergency for opposing the Indira-Abdullah accord that finally brought back the National Conference (NC) founder, Sheikh Muhammad Abdullah, into mainstream politics.
- The organisation was again banned by the central government headed by V.P.Singh in 1990. That order was revoked in 1993 by the P.V. Narasimha Rao headed Congress government.
- Many people believe that the single biggest reason for the JI cadres supporting militancy and separatism was their engineered defeat during the 1987 elections.

Details:

- The Ministry of Home Affairs (MHA) had banned Jamaat-e-Islami under the Unlawful Activities (Prevention) Act for alleged anti-national and subversive activities. A notification on the ban was issued by the Ministry of Home Affairs (MHA) after a high-level meeting on security, chaired by the Prime Minister.
- The government thus declared the JI Jammu and Kashmir as "an unlawful association whose activities have the potential of disrupting the unity and integrity of India".
- The J&K High Court has now issued a notice to the Union Home Ministry for a response on the ban of Jamaat-e-Islami (JeI), after an ex-Jamaat member plea challenged the Centre's move.

8. Indo-Pacific Regional Dialogue (IPRD)

- IPRD was first conceptualized and conducted in 2018, as the apex level conference of the Indian Navy, organised by the National Maritime Foundation as the Navy's Knowledge Partner.
- The permanent theme of this annual dialogue is a review of India's opportunities and challenges in the Indo-Pacific region.

- The aim is to focus attention on the Indo-Pacific, as a maritime geographical-entity, while deliberating aspects of great relevance to regional geopolitics.
- Through this annual dialogue, the Indian Navy and the National Maritime Foundation, aim to provide a platform for substantive and insightful discussions pertaining to the geopolitical developments affecting the maritime domain of the Indo-Pacific, and provide policy-relevant inputs to the policy-makers and the public at large.

9. Landing Craft Utility (LCU) L-56

- LCU is an amphibious vessel that can transport and deploy main battle tanks, armoured vehicles, troops and equipment from ship to shore.
- It can be used in a variety of situations such as search and rescue, disaster relief operations, supply and replenishment and evacuation from distant islands.

Context

- The warship was built and designed by Garden Reach Shipbuilders & Engineers Limited (GRSE), Kolkata.
    * GRSE has emerged the first Indian shipyard to make and deliver 100 warships to the Indian Navy, Indian Coast Guard and Mauritius Coast Guard.
- The ship can accommodate 216 personnel and is equipped with two indigenous CRN 91 guns

Features

- The LCU is 63-metre-long and 11-metre-wide and has a displacement of 830 T with a low draught of 1.7 m.
- It can achieve a speed of 15 knots.
- The ship is fitted with the state-of-the-art equipment and advanced systems such as Integrated Bridge System (IBS) and Integrated Platform Management System

10. Operation Sunrise

Context

- The Indian and Myanmar's armies have, in a coordinated operation, destroyed at least 10 camps belonging to an insurgent group in Myanmar, which had become a threat to India's mega Kaladan Project in the neighbouring country.
    * The operation was also undertaken keeping in view the safety of Indian workers engaged in the project.
- The military action, carried out was codenamed Operation Sunrise.

Details:

- The target was the Arakan Army, an insurgent group trained by the Kachin Independence Army (KIA), which is designated as a terrorist outfit by Myanmar.

- KIA is suspected to be supported by China.
- The Indian Army went in for a border strengthening posture where additional troops were deployed along with surveillance equipment
    * The Indian Army also helped the Myanmarese Army by providing them intelligence
    * There were also inputs that some members of the Arakan Army were also planning to sneak into India.

11. Pinaka

- It is indigenously developed system by DRDO
- It is unguided rocket system meant to neutralize bigger geographical area with rapid salvos.
    * It can fire a salvo of 12 rockets in 44 seconds
- 'Pinaka' is an area weapon system with a range of 40 km aimed at supplementing the existing artillery gun
- The system is mounted on a Tatra truck for mobility.
- Pinaka saw service during the Kargil War, where it was successful in neutralising enemy positions on the mountain tops.

Significance

- The quick reaction time and high rate of fire of the system gives an edge to the army during a low-intensity conflict situation
- The system's capability to incorporate several types of warheads makes it deadly for the enemy as it can even destroy solid structures and bunkers.

Guided Pinaka

- The earlier Pinaka version, which was an unguided one, has now been upgraded into a guided version, with a navigation, guidance and control kit developed by the Research Centre, Imarat (RCI), Hyderabad
    * The guided version dubbed as Pinaka mark-II, has been evolved version of Pinaka mark-I
    * The RCI comes under the Defence Research and Development Organisation (DRDO).
- The weapon system is equipped with state-of-the-art guidance kit comprising of an advanced navigation and control system
- The conversion helped in enhancing the range and accuracy of Pinaka.
    * If its range was earlier 40 km, it is more than 70 km now
- The guided Pinaka was developed jointly by the Armament Research and Development Establishment (ARDE), Pune, the RCI, and the Defence Research and Development Laboratory (DRDL), Hyderabad.
- The PXE, Chandipur, provided the range and launch support.

Significance

- It proves the efficacy, reliability and high precision capabilities of the weapon system
- The success of the guided Pinaka has reinforced the technological strength of the country in converting the unguided systems into weapons of high precision

12. Politicisation of Events Post-Pulwama

The Military Vs. Political Binary

- There is a strongly held belief, often convincingly articulated by leading thought leaders, that national security must be divorced from politics. As a matter of fact, this is so entrenched in popular narratives that any attempt at discussing national security through the lens of politics is immediately discredited: "How can someone politicise something as important as national security?"
- While this is true, some experts have pointed out that 'de-politicisation' comes handy for the government since "do not politicise" also means "do not ask difficult questions", a convenient way out of a tricky situation.
- However, for the general public, this results in weariness over how the political class has managed national security problems.
- The solution is to offer better political reasoning, and not replace political formulations with military ones, which is often seen as the easy way out.

Military solutions over political ones: A Perspective

1. When we privilege military solutions over political ones while dealing with conflict resolution, we find that the former uses a specific set of tools, discourses and methods to resolve conflicts unlike the toolkit politics uses for conflict resolution.
    * Consider an example. Post-Pulwama, the Government of India began a security crackdown in the Kashmir Valley and airlifted around 100 companies of paramilitary forces to enforce it. This is a typical and time-tested military solution to the unrest in the State of Jammu and Kashmir.
    * A political solution would have been what the Government of India adopted to deal with the widespread anger in the Valley in late 2010, wherein it sent a team of interlocutors to talk to the protesting Kashmiris.
    * The interlocutors were able to bring about a sense of normalcy almost immediately, whereas the influx of more armed men into the Valley is unlikely to achieve that.

2.. Further, militarised methods and narratives also lead to de-politicisation, or the dismissal of normal politics from the public sphere, ushering in what could be called 'temporary emergencies'.

    * Here's an example. In the immediate aftermath of the Pulwama attack, a leading Indian actress tweeted: "Anyone who lectures about non-violence and peace at this time should be painted black, put on a donkey and slapped by everyone on the streets." Put differently, she advocated that the practice of normal politics be suspended and be replaced by a depoliticised and securitised discourse. And that those who violate such 'emergency' should be punished.

    * It is important to note that when such short spells of emergency are normalised, it opens the door for more permanent securitised spaces and narratives.

    * Kashmir, which has more or less been reeling under spells of temporary emergencies for close to three decades now, is a perfect example.

3. Privileging militarisation over politicisation for conflict resolution is indeed unwise and counter-productive. As a matter of fact, when divorced from their underlying political intent, militarised approaches can lead to mindless violence — something democratic societies should unconditionally resist.

4. Military means to deal with conflicts do have their limited utility, but they must be politically guided.

'Freedom to the military':

- Another reflection of depoliticising security matters is the tendency to argue that the armed forces should be given complete autonomy to deal with security problems.

- In the immediate aftermath of Pulwama, Prime Minister Narendra Modi, for instance, declared that the "armed forces have been given complete freedom to take action", a statement that was well received by the general public.

- However, giving complete freedom to the military is replete with several complications. Critics opine that telling the armed forces that they are free to deal with the problem as they wish is a dangerous abdication of political responsibility which was entrusted to them through a democratic process.

- Secondly, 'giving complete freedom to the military' is an open invitation to use military solutions to deal with what are essentially political problems.

- Thirdly, and even more important, 'complete freedom' flies in the face of political control that should be the hallmark of a mature democracy.

- It is one thing for the general public to nurture romantic notions about military solutions, but it is dangerous for the political class to actually enshrine that in policy guidance. Popular fetishes about military force are the stuff for feel-good fiction, not policy making.

- One direct implication of de-politicised conflict resolution is that it typically leads to more violence. When men in uniform die, their loss becomes a rallying cry for more violence which then leads to even more casualties — the cycle goes on until political solutions are brought in. We observe this when we take any militarised conflict as an example.

- The fact is that every death due to violence must be avoidable, and that can only happen if statesmen and women are willing to climb down from the cycle of violence. But for that to happen, there must be a decidedly political approach to conflict resolution.

Losing the Information War (A Perspective)

- Anoth • India is used to a negative international media. After the 1998 nuclear tests, the American media echoed the sentiment that "the Indian government has not shot itself in the foot. Most likely it has shot itself in the head." As events unfolded, its dire predictions turned out to be completely inaccurate.

- The difference between then and now, when the global media has cast doubts about India's "non-military and preemptive" response to the Pulwama terrorist attack, is that the Indian version of events is hardly getting a credible hearing.

- Some experts believe that this is because the Indian government no longer has viable channels to put across its point of view to the Western media.

- By acts of commission and omission, the Ministry of External Affairs (MEA), which should be in the driving seat for such publicity, has, over the last few years, discontinued the practice of having foreign correspondents based in India, attend briefings by MEA spokespersons.

- Had this been followed, some experts point out, the Indian position might have been persuasively argued.

- The earlier practice for many decades was that following the daily briefing by the MEA spokesperson, Indian and foreign correspondents would gather for discussions over tea. It gave an opportunity for the spokesperson, who was sometimes joined by heads of MEA's territorial divisions, to informally put across what he or she could not say on record about India's stake in diplomatic jugglery. Inevitably, some of this would be published in reports.

- That did not happen with events post-Pulwama. The daily briefing by the MEA spokesperson seems to have faded in importance.

- Towards the end of Manmohan Singh's tenure as Prime Minister, the daily briefing was scrapped in favour of weekly briefings.

- Some experts opine that with the current practice, the government is unable to disseminate information that could have produced a more sympathetic global media on the current play in India-Pakistan relations.

13. Smart Fencing

Background

- India Bangladesh riverine section is considered highly porous. This region is known for illegal immigration and smuggling of arms, ammunition and other goods

- In a bid to check illegal immigration and smuggling of arms, drugs and cattle, Assam will be put under electronic surveillance

Details

- Assam shares a 263 km border with Bangladesh.

- Much of the border was fenced, but a 61 km stretch in Dhubri district remained open owing to the terrain dictated by the Brahmaputra.

- The "smart fencing" will be operationalized along the 61 km riverine section of the international border in Dhubri district of Assam where the Brahmaputra river enters into Bangladesh.

- It will cover the India-Bangladesh border in the area which consists of 'char' (sand islands) and many river channels, which makes border guarding difficult, especially during the rainy season

BOLD-QIT (Border Electronically Dominated QRT Interception Technique)

- The project, called BOLD-QIT (Border Electronically Dominated QRT Interception Technique), under the Comprehensive Integrated Border Management System (CIBMS)

- BOLD-QIT aims to install various kind of sensors across the sand islands and river channels

- The entire span of the Brahmaputra has been covered with the data network generated by Microwave communication, OFC Cables, DMR Communication, day and night surveillance cameras and intrusion detection system

- These gadgets will provide information to the BSF control rooms along the border and enable the paramilitary force's quick reaction teams to stop any possibility of illegal border crossing and crimes.

Significance

- The implementation of this project will not only help the BSF curb all types of cross-border crimes, but also provide respite to the troops from round-the-clock human surveillance

14. Terror Monitoring Group (TMG)

Context

- In order to understand the magnitude of funds available to terrorist outfits, traces their sources of funding including the transnational linkages, outline their methods of financing and identify the support structures that sustain and aid terrorism and to keep a close watch on illegal flow of funds that is fueling militancy in Jammu and Kashmir, the Ministry of Home Affairs (MHA) announced the setting up of a Terror Monitoring Group (TMG)

- This is aimed at taking "coordinated action against terror funding".

Details

- As per the order issued by MHA, the terms of reference of the TMG include, "taking action against hardcore sympathizers among government employees including teachers' etc providing overt or covert support to such activities".

- The order further states that the TMG shall "identify all key persons including leaders of the organisations who are involved in supporting terrorism in any form and take concerted action against them.

    * Investigate the networks of various channels being used to fund terror and terror-related activities and take action to stop flow of such funds".

- It charges the TMG with action against all registered cases related to terror, terror financing and terror-related activities and bring them to a logical conclusion.

Composition

- The seven-member TMG shall be headed by the Jammu and Kashmir additional director general of police (ADGP).

- It shall also have representatives from the Intelligence Bureau (IB), CBI, NIA, Central Board of Direct Taxes (CBDT), and Central Board of Indirect Taxes and Customs (CBIC).

- The Jammu and Kashmir police inspector-general shall be the seventh member of the TMG.

- However, the Enforcement Directorate (ED), which has attached several properties in terror funding cases, did not find mention in the order.

15. The Mizoram Maintenance of Household Registers Bill, 2019

Context

- The Mizoram Assembly has unanimously passed a Bill that seeks to detect foreigners illegally residing in the north-eastern State as this has remained a serious concern for several decades.

- It was introduced as this influx resulted in an abnormal increase in the population which posed a serious threat to law and order as well as the State's internal security

Features of the bill

- It defines "citizens" as a person registered as such, or having requisite qualification as prescribed under the Citizenship Act, 1955

- The household register will be maintained by designated officials as well as village councils, municipal bodies and town committees.

- The registers which will be updated every three months will have two categories,
  - * one for citizen residents and
  - * One for non-citizen residents of the village.
- The measures proposed under the legislation are intended to provide credible individual identification system and to prevent "usurpation" of benefits of developmental schemes by those who are not entitled
- This will develop a comprehensive database in respect of all the residents of Mizoram — whether in villages or in towns and whether permanent or temporary — and will ensure its updation and maintenance

Benefits

- The update is required for improvement of the system of delivery of benefits of welfare schemes
- It will also help the security purposes by way of enumerations and verification from time to time.

16. Theatre Level Operational Readiness Exercise (TROPEX 19)

- It is an inter-service military exercise involving the participation of the Indian Army, Air Force, Navy and the Coast Guard.
- It is intended to examine the conduct of the exercise and to assess the operational preparedness of the Indian Navy.
- It will provide the planners accurate assessments to fine tune force structuring requirements, operational logistics, as also material and training imperatives

ENVIRONMENT AND ECOLOGY

1. **Aves island- Laws amended by Environment Ministry**

    Background

    *   The environment ministry's Expert Appraisal Committee (EAC) on the Coastal Regulation Zone (CRZ) had looked into plans to develop resorts, tent houses and tree houses in the island cluster of Long Island, Smith Island and Aves Island

    *   But, the Aves Island project was the only one of three proposed tourism projects that did not get a clearance from expert committee on coastal clearance

    *   The plan to set up 50-beachtent resort on Aves Island could not be given permission, as it's under the no-development zone as per Island Coastal Regulation Zone (ICRZ) 2011 Rules under which no permanent construction is allowed 50 metres beyond the High Tide Line (HTL).

    *   This was because the proposed Aves island project was located 20 m away from the High Tide line (HTL) and existing rules required such projects to be at least 50 m away.

    Context

    *   The Environment Ministry has amended laws that now allow a proposed tourism project in the Aves island, of the Andaman and Nicobar Island (A&N) territory, to come up.

    Why was it done?

    *   The new rules did ease the way for the Aves island project, it was also done to broadly align the changes in coastal zone regulations in the country's mainland States with the island regions.

    *   there is no other industrial development in the A&N and tourism is a major thrust area

        *   The vision is to leverage the potential of the Islands and to position them at par with international tourism and trade destinations.

    *   Holistic development of the Islands will develop the local economy, provide employment and infrastructure service to the local population for New Andaman's

    *   However, there continue to be stringent provisions on how infrastructure and development projects can be executed

2. **Bandi River**

    *   Bandi is a tributary of the Luni River in Pali district of Rajasthan

    Context

    *   The National Green Tribunal has refused to modify its order slapping a fine of Rs 20 crore on Rajasthan government for not taking proper action to control pollution in the Bandi River by local textile industries.

    *   The industrial pollutants from textile units in Pali being discharged into Bandi river have magnified the level of pollution and made the water unfit for agricultural and domestic use.

    Details

    *   A study of surface and groundwater in Pali, conducted by the Centre for Science and Environment in 2008, had found almost 80 per cent of the sample water unfit for drinking as well as irrigation

    *   The samples showed high alkaline and chemical oxygen demand levels, indicating dangerous levels of organic pollutants.

        *   its water has been found to contain chloride, sulphate, and heavy metals beyond permissible limits

    *   The quantity of total dissolved solids was four times higher than the standard.

    *   Most of these metals are toxic and extremely harmful and can lead to health ailments like skin problems, reduced immunity and damages to the nervous and the cardiovascular systems.

    *   The polluted water was making the agricultural fields infertile.

    *   NGT said that considering the damage caused to the environment due to the industries, environment compensation of Rs 20 crore cannot be considered to be excessive.

3. Bannerghatta National Park's Eco-Sensitive Zone curtailed

Background

- Ministry of Environment, Forest and Climate Change (MoEF) had come up with a move to reduce the area and the extent of the Eco-Sensitive Zone (ESZ) around Bannerghatta National Park

  * The National Wildlife Action Plan (2002–2016) of the Ministry of Environment stipulated that state governments should declare land falling within 10 km of the boundaries of national parks and wildlife sanctuaries as eco fragile zones or ESZs under the Environmental (Protection) Act, 1986.

  * The purpose of the ESZ was to provide more protection to the parks by acting as a shock absorber or transition zone.

- The draft proposes to reduce the ESZ's area around Bannerghatta National Park by 100 sq km from 268.96 sq km to 169.84 sq km.

- The draft states that 77 villages will fall under the ESZ against the earlier 147 villages.

Concerns

- Bannerghatta National Park is under severe stress due to multiple projects by real estate tycoons and the mining mafia where granite and stone mining takes place.

- Smaller ESZ will lead to fragmentation of forests and increase mining.

- Threats to the security of villagers due to the influence of the mining mafia.

- It will reduce the quality of life of Bengalureans and those living around Bannerghatta as pollution will rise in this region.

- This will further lead to Man animal Conflicts leading to loss of life and Property

4. Bumphead Parrotfish

- Bumpheads are the world's largest parrotfish.

- Ramming its enormous green head against corals to dislodge them, a single bumphead can nibble up to five tonnes of coral every year.

  * They feed directly on these corals

  * They eat tonnes of this living coral over the course of a year

  * These bumpheads are messy feeders, they break off dozens of pieces they don't eat - those pieces are alive and that acts as dispersal, like the way birds feed on fruits and disperse the seeds

  * Though seemingly destructive, this activity promotes coral growth and keeps reef ecosystems healthy

Threats

Numbers of bumphead parrotfish have decreased worldwide.

- Overfishing is a concern, for the fish are highly prized catches

- Bumpheads are not legally protected in India though the IUCN categorizes them as Vulnerable

Recommendation

- Laws should be laid to protect them legally and implement some fishing restrictions so their numbers can improve

5. Climate vulnerability index for India

Background

- In 2018 Indian Institute of Technology-Guwahati, Indian Institute of Technology-Mandi and Indian Institute of Science Bengaluru had collaborated to develop a climate change vulnerability assessment

- They coordinated with State authorities in Assam, Manipur, Meghalaya, Mizoram, Nagaland, Tripura, Arunachal Pradesh, Sikkim, the hill districts of West Bengal, Himachal Pradesh, Uttarakhand and Jammu and Kashmir, to evolve a common methodology, and determine how districts there are equipped to deal with the vagaries of climate change.

- The researchers prepared a 'vulnerability index' of each of these States based on district-level data.

  * Vulnerability would be a measure of the inherent risks a district faces, primarily by virtue of its geography and socio-economic situation.

What did they decide?

- The scientists conducted workshops with the States and culled eight key parameters on the basis of which a vulnerability score could be generated.

- They included: percentage of area in districts under forests, yield variability of food grain, population density, female literacy rate, infant mortality rate, percentage of population below poverty line (BPL), average man-days under MGNREGA (Mahatma Gandhi National Rural Employment Guarantee Act), and the area under slope > 30%.

- On a scale ranging 0-1,

  * 1 indicating the highest possible level of vulnerability,

  * At the top of the scale were Assam with a score of 0.72 and Mizoram at 0.71, whereas Sikkim, with an index score of 0.42 was relatively less vulnerable.

Different factors

Different factors contributed to a State's vulnerability.

- Arunachal Pradesh, the key factors are low female literacy and high percentage of population above BPL

- Nagaland the key issues are loss of forest cover, steep slope and high yield variability.

Significance

- The assessment exercise is unique because for the first time all 12 Himalayan states have used a common framework resulting in the production of comparable state-level and within state, district-level vulnerability maps.

- Such comparable vulnerability assessments are useful for the governments, implementers, decision makers, funding agencies and development experts to gain a common understanding on vulnerability, enabling them to assess which state is more vulnerable, what has made them vulnerable and how they might address these vulnerabilities.

6. **"Cool Spots" and "Hot Spots"**

Context

- According to a new study in the international journal PLOS Biology it says Human impacts on species occur across 84% of the earth's surface

Definition

- "Cool Spots"These are world's last refuges where high numbers of threatened species still persist.

  * Cool-spots could be the result of protection or because of intact habitat that has not been cleared yet

  * Examples: Amazon rainforest, Andes Mountains, and tundra and boreal forests of Russia and North America.

- "Hot spots" where species richness is threatened by human activities.

  * Top "hot spots" were dominated by areas in Southeast Asia where wildlife-rich tropical forests are increasingly threatened by expanding human impacts.

Threats

- The researchers have mapped the distribution of eight human activities — including hunting and conversion of natural habitats for agriculture — in areas occupied by 5,457 threatened birds, mammals and amphibians worldwide.

- Using sources, including the recently-updated Human Footprint data, they found that a staggering 1,237 species are impacted by threats in more than 90% of their habitat; 395 species are affected by threats across their entire range.

- While the impact of roads is highest (affecting 72% of terrestrial areas), crop lands affect the highest number of threatened species: 3,834.

- The most impacted biomes included mangroves, tropical and sub-tropical moist broadleaf forests in Southern Brazil, Malaysia, and Indonesia, and tropical and subtropical dry broadleaf forests of India, Myanmar and Thailand.

Ranking of Countries

- Malaysia ranks first among the countries with the highest number of impacted species (125).

- India ranks 16th (35 threatened species affected on average).

  * For instance, the average number of species impacted in the South Western Ghats montane rainforests is 60 and in the Himalayan subtropical broadleaf forests, 53. The maps show that roads and croplands are extensive in India and conversion of habitat for such activities could be a main threat

- Southeast Asian tropical forests — including those in India's Western Ghats, Himalaya and north-east — are among the 'hotspots' of threatened species.

What should India do?

- Identifying Cool Spots could aid conservation and development planning for countries.

- With India having the world's second largest road network, planning for development that keeps wildlife conservation as a primary goal in biodiversity-rich areas should be the way to go.

- Development should not interfere with the threaten species

- Similarly, if wildlife-friendly cropping patterns lead to conservation of wildlife

  * For instance, agricultural crops such as pulses have supported the conservation of the critically endangered great Indian bustard.

Conclusion

- The results of the study should serve as a roadmap of where to direct future conservation investment, and to define strategies to directly mitigate threats that are driving species declines
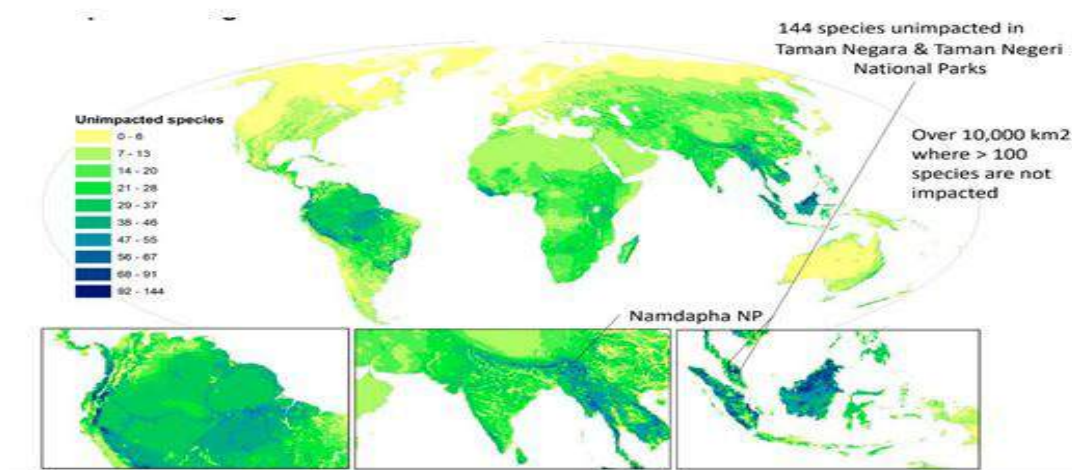
7. Crop burning raises risk of respiratory illness threefold, says IFPRI study

Context

- According to a study by the International Food Policy Research Institute (IFPRI), conducted on 2,50,000 people in Haryana (which sees a spike in crop burning episodes in winter), and Andhra Pradesh and Tamil Nadu,

Details

- This research was based on health records and satellite data from September 2013-February 2014.

- The satellite data for crop-burning fires was detected by the Moderate-Resolution Imaging Spectroradiometer (MODIS)

- The burning of agricultural residue — a contributor to north India's winter pollution — increases the risk of respiratory illnesses threefold for those who experience it.

- It may also be responsible for an annual $30 billion (approximately ₹2 trillion) loss in terms of days of work lost in States affected by crop burning

Moderate-Resolution Imaging Spectro radiometer (MODIS) Terra satellite

- It is managed by the National Aeronautics Space Administration (NASA).

- They are designed to provide measurements in large-scale global dynamics including changes in Earth's cloud cover, measures the properties of clouds such as the distribution and size of cloud droplets in both liquid water and ice clouds

- It measures radiation budget and processes occurring in the oceans, on land, and in the lower atmosphere.

- MODIS sees changes in the Pacific phytoplankton populations that may signal the onset of the famous El Niño/La Niña climatic siblings well ahead of their arrival

Stats

- In Haryana, 5.4% of surveyed individuals reported suffering from ARI (Acute Respiratory Infection) whereas the reported ARI symptoms in southern States was only 0.1%.

- Among those who reported suffering from ARI, 83% also reported receiving treatment for ARI at a private or public medical facility.

8. Earth Day award

- Earth Day Network USA is an international environmental NGO that engages with over 50,000 organizations in some 195 countries and Earth Day Network Star award is considered a prestigious recognition of those who do excellent work in the environmental field.

- Its mission is to diversify, educate and activate the environmental movement worldwide.

- Earth Day Network grew out of the first Earth Day (April 22, 1970).

Context

- Recognizing the services rendered to the conservation and protection of biodiversity in Nagaland by Alemba Yimchunger, a Forest Guard at Fakim Wildlife Sanctuary, a NGO called Earth Day Network USA has declared him as 'Earth Day Network Star.'

Fakim sanctuary

- The Fakim Sanctuary is in Nagaland and is close to the Myanmar border.

- The sanctuary lies in the Pungro circle headquarter in Nagaland.

- The Nagaland Fakim Sanctuary is spread over an area of 642 ha.

9. Earth Hour

- It is a worldwide movement organized by the World Wide Fund for Nature (WWF).

- It was started as a lights-off event in Sydney, Australia, in 2007 and today it has spread to more than 180 countries, with tens of millions of people joining in.

- The Earth Hour is a gesture that calls for greater awareness and more sparing use of resources, especially fossil fuels that produce carbon gases and lead to global warming.

- The event is held annually encouraging individuals, communities, and businesses to turn off non-essential electric lights for one hour, from 8:30 to 9:30 p.m. on a specific day towards the end of March

10. Enforcing a ban will not end the menace of stubble burning, say researchers

Issue:

- A team of Swiss and Indian researchers who interviewed 600 farmers over 2 years say that only educating farmers about the monetary costs of burning stubble can address the environmental crisis triggered every year in Punjab.

Background:

- For the last few years, farmers of Punjab and Haryana have faced public wrath and governmental action as one crop season ends and stubbles are burnt by them, causing massive air pollution not only in these two states but also in the nearby national capital.

- Burning stubble, the rice chaff left over after harvesting, is linked to winter air-pollution in the State as well as down-wind Delhi.

- The problem becomes more acute for big cities like Delhi, Gurugram and Ludhiana as they already have an unacceptable level of contaminated air due to heavy traffic, unplanned growth, polluting industries and depleting green cover.

- Under pressure from the green tribunal, state governments have even imposed penalties on farmers who do not adhere to the ban on stubble burning.

- Unfortunately, stubble burning continues unabated. The farmers instead of being apologetic, are belligerent in their defiance as they point to the cost involved if they have to buy or engage farm equipment required for crop residue management.

- They also refer to the prevalent three-crop economy in these two states, which means they have a very small time window before the next crop is planted.

- The increase in wages for farm labour and the decrease in migrant labour also prompts farmers to continue with stubble burning.

Details:

- According to the team, the government's efforts — earmarking funds for specialised farming equipment (for straw management) or enforcing the state-led ban on the practice — are unlikely to solve the problem.

- Farmer cooperative groups — a key link between government and farmers — ought to be playing a more active role in educating farmers, say key authors.

- They opine that there are deeper causes beyond economic incentives or awareness about the health consequences of burning at play.

Way forward:

- There are other alternatives. For example, the states can purchase the residues from the farmers and handle it for their benefits in a cost-effective way.

- Focus should also be on year-long awareness programmes on the benefits of managing crop residues.

- The farmers need to be made aware that it is not just an urban problem, but, smog and its related dangers kills their own people, and deteriorates the soil quality.

- The State's activism should be focused on generating resources by seeking assistance from the global agencies created under the Paris agreement on climate change, such as the Global Climate Fund, or by involving corporate houses through CSR.

- Media can also play a role in creating awareness among farmers about the long-term benefits of becoming willing partners in putting an end to this harmful practice.

- Rather than trying to enforce a ban on stubble burning, the state governments' efforts should be to spread awareness and ways to incentivise productive use of the stubble.

- There needs to be greater participation by village cooperatives in being able to impose social norms that would dissuade burners.

11. Forest Surveys

'Forest Cover'

- Forest Survey of India employs satellite imagery to estimate "forest cover"

- The term 'forest cover', includes "all lands more than one hectare in area with a tree canopy of more than 10% irrespective of land use, ownership and legal status".

- This means that private plantations of tea, rubber, coffee etc. are also included in the 'forest' area if they are more than one hectare in size with a tree canopy of over 10%.

Current Status

- The government counts both forests and plantations towards estimating the portion of India's geographical area covered by forest.

Context

- A high-power committee constituted by the Ministry of Environment, Forest and Climate Change (MoEFCC) has recommended that forest surveys — the biennial (occurring every two years) exercise by the government to estimate forest cover —

* Explicitly demarcate trees grown in forests from those grown outside, that is, in plantations and private lands.

12. G.B. Pant National Institute of Himalayan Environment & Sustainable Development

- It was established in 1988-89, during the birth centenary year of Bharat Ratna Pt. Govind Ballabh Pant
- It is an autonomous Institute of the Ministry of Environment, Forest & Climate Change (MoEF&CC), Govt. of India
- It has been identified as a focal agency to advance scientific knowledge, to evolve integrated management strategies, demonstrate their efficacy for conservation of natural resources, and to ensure environmentally sound development in the entire Indian Himalayan Region (IHR).
- Global Energy & CO2 Status Report

13. Global Environment Outlook (GEO)

- The Global Environment Outlook (GEO) is often referred to as UN Environment's flagship environmental assessment.
- The first publication was in 1997 and was originally requested by Member States.
- It is a flagship report because it fulfills the core functions of the organization, which date back to the UN General Assembly resolution that established the UN Environment Programme in 1972.
- The Global Environment Outlook (GEO) is also a series of products that informs environmental decision-making for not only governments but also various stakeholders such as the youth, businesses and local governments and aims to facilitate the interaction between science and policy.

Context

- Global Environment Outlook-6: Healthy Planet, Healthy People (GEO-6), covers all environmental issues and their link to human health
- In the report published by UN it said a quarter of all premature deaths and diseases worldwide are due to manmade pollution and environmental damage
- Deadly emissions, chemicals polluting drinking water, and the accelerating destruction of ecosystems crucial to the livelihoods of billions of people are driving a worldwide epidemic that hampers the global economy, it warned.

Details

- The report says air pollution causes 6-7 million early deaths annually.
- It depicts a growing chasm between rich and poor countries as rampant overconsumption, pollution and food waste in the developed world leads to hunger, poverty and disease elsewhere.

- Lacking access to clean drinking supplies, 1.4 million people die each year from preventable diseases such as diarrhoea and parasites linked to pathogen-riddled water and poor sanitation.
- Chemicals pumped into the seas cause "potentially multi-generational" adverse health effects, and land degradation through mega-farming and deforestation occurs in areas of Earth home to 3.2 billion people.
- Food waste, which accounts for 9% of global greenhouse gas emissions, could be slashed.
  * The report advises adopting less-meat intensive diets, and reducing food waste in both developed and developing countries, would reduce the need to increase food production by 50% to feed the projected 9-10 billion people on the planet in 2050.
  * At present, 33% of global edible food is wasted, and 56% of waste happens in industrialised countries.
- It also called for a rapid drawdown in greenhouse gas emissions and pesticide use to improve air and water quality.

On India

- India's stated commitment is to lower emissions intensity of its GDP by 33-35% compared to 2005 levels by 2030; increase total cumulative electricity generation from fossil free energy sources to 40% by 2030, and create additional carbon sink of 2.5 to 3 billion tons through additional forest and tree cover.
- India could save at least $3 trillion (₹210 trillion approx.) in healthcare costs if it implemented policy initiatives consistent with ensuring that the globe didn't heat up beyond 1.5 degrees Celsius by the turn of the century
- Further For India to leapfrog onto a 1.5-degree pathway it would have to abandon plans to build new coal-fired power plants

Steps to be taken

- Combating air pollution would, therefore, require all older coal-based power plants in India to conform to emission norms at the earliest, or to be shut down in favour of renewable energy sources.
- In the case of water, the imperative is to stop the contamination of surface supplies by chemicals, sewage and municipal waste. As the leading extractor of groundwater, India needs to make water part of a circular economy in which it is treated as a resource that is recovered, treated and reused.
  * New storage areas act as a supply source when monsoons fail, and help manage floods when there is excess rainfall.
- Transport emissions are a growing source of urban pollution, and a quick transition to green mobility is needed.

Conclusion

- The bottom line is that as long as environment policy remains within a relatively powerless environment ministry—without the ability to control the other more powerful ministries of economy, energy, industry, water, health and agriculture—its policies will be underfunded and under supported politically.

- GEO-6 makes a convincing case for the environment ministry to join hands with the ministries of health but also perhaps those who focus on poverty and gender issues to come together in a show of strength to demand change from the rich and powerful of this generation both within and outside India.

- There are major synergies between healthy diets, healthy environments, and human well-being; between collecting wastes and reusing them in production processes; between investing in clean renewables and health, and in ensuring tenure security for small farmers and helping them become self-sufficient and promote food security.

14. Global Energy & CO2 Status Report

Context

- According to the Global Energy & CO2 Status Report by the International Energy Agency (IEA), India's CO2 emissions are up by 5%.

- The report provides a high-level and up-to-date view of energy markets, including latest available data for oil, natural gas, coal, wind, solar, nuclear power, electricity and energy efficiency

- Natural gas emerged as the fuel of choice, posting the biggest gains and accounting for 45 per cent of the rise in energy consumption. Gas demand growth was especially strong in the US and China.

Stats with respect to India

- India emitted 2,299 million tonnes of carbon dioxide in 2018, a 4.8% rise from last year, according to a report.

- India's emissions growth this year was higher than that of the United States and China — the two biggest emitters in the world — and this was primarily due to a rise in coal consumption.

- China, the United States, and India together accounted for nearly 70% of the rise in energy demand.

- India's per capita emissions were about 40% of the global average and contributed 7% to the global carbon dioxide burden. The United States, the largest emitter, was responsible for 14%.

India's Plans to combat Climate Change

- As per its commitments to the United Nations Framework Convention on Climate Change, India has promised to reduce the emissions intensity of its economy by 2030, compared to 2005 levels.

- It has also committed to having 40% of its energy from renewable sources by 2030 and, as part of this, install 100 GW of solar power by 2022.

- Showed that India's energy intensity improvement declined 3% from last year even as its renewable energy installations increased 10.6% from last year.

Global Energy Consumption

- Global energy consumption in 2018 increased at nearly twice the average rate of growth since 2010, driven by a robust global economy and higher heating and cooling needs in some parts of the world.

- Demand for all fuels increased, led by natural gas, even as solar and wind posted double digit growth.

- Higher electricity demand was responsible for over half of the growth in energy needs.

- Energy efficiency saw lacklustre improvement.

- As a result of higher energy consumption, carbon dioxide emissions rose 1.7% last year and hit a new record.

- The United States had the largest increase in oil and gas demand worldwide.

Growth in global energy demand
A 2.3 percent jump in global energy consumption in 2018
Annual changes in demand
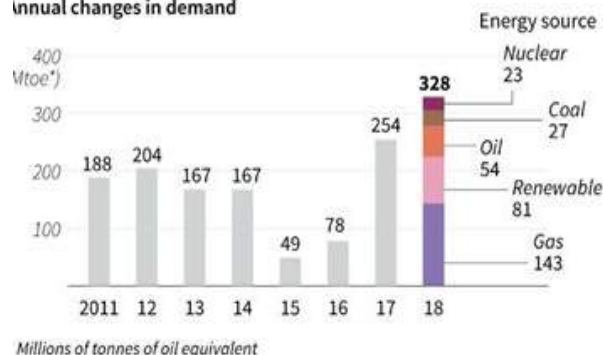
India must raise its ambition on reduction in carbon emissions

The universal challenge of climate change has grown to such proportions that urgent action to sharply cut carbon emissions is crucial, and all countries, including India, must act quickly.

- Intensive measures in key sectors — scaling up renewables to raise their share in the energy mix, greening transport, updating building codes and raising energy efficiency — will help meet the national pledge under the Paris Agreement to cut energy intensity of GDP by 33-35% by 2030, over 2005 levels.

- At the global level, renewable sources of energy grew by 7% during 2018, but that pace is grossly insufficient, considering the rise in demand.

- India is the founder of the International Solar Alliance, so it should take the lead in the renewables effort.

* Yet the performance is pitiable, in spite of falling prices and rising efficiency, the potential of rooftop solar photovoltaics remains poorly utilised.

* It is time State power utilities are made responsible for defined rates of growth in the installation of rooftop systems.

- A second priority area is the cleaning up of coal power plants, some of which are young and have decades of use ahead.

* This process should be aided by the UN Framework Convention on Climate Change (UNFCCC), which can help transfer the best technologies for carbon capture, use and storage

- India's record in promoting green transport has been uninspiring, and emissions from fossil fuels and the resulting pollution are rising rapidly.

* The Centre's plan to expand electric mobility through financial incentives for buses, taxis and two-wheelers needs to be pursued vigorously, especially in the large cities.

Conclusion

- Inevitably, India will have to raise its ambition on emissions reduction, and participate in the global stocktaking of country-level action in 2023.

- It has the rare opportunity to choose green growth, shunning fossil fuels for future energy pathways and infrastructure.

15. Hamiltonian Spite

- This refers to vicious behavior that is exhibited by certain organisms towards other organisms of the same species that is aimed to improve the chances of survival of their own genes.

* Many animal species exhibit infanticide, i.e. adults tend to kill the eggs or the offspring of conspecifics, even if they do not feed on them

* Female wattled jacanas often carry out infanticide.

- Such behaviour helps the organism reduce competition against its genes for limited resources.

- The idea is named after English evolutionary biologist William D. Hamilton.

- It is believed that while organisms can be altruistic towards other organisms that are closely related to them genetically, they can also exhibit spiteful behaviour towards others of the same species that are genetically distant.

16. India has 15 out of 20 most polluted cities in world

Context

- According to latest data compiled in the IQAir AirVisual 2018 World Air Quality Report prepared in collaboration with Greenpeace Southeast Asia, Fifteen of the 20 most polluted cities in the world are in India

- The ranking relies on ground-based sensors located in 3,000 cities from 73 countries and was compiled by IQAir Group, a manufacturer of air-monitoring sensors as well as purifiers

PM

- The index measures the presence of fine Particulate Matter known as PM2.5

- Particulate Matter is a common proxy indicator for air pollution. It affects more people than any other pollutant.

* The major components of PM are sulfate, nitrates, ammonia, sodium chloride, black carbon, mineral dust and water.

* It consists of a complex mixture of solid and liquid particles of organic and inorganic substances suspended in the air.

- PM10 has a diameter of 10 microns or less, ($\leq$ PM10)

* Particles which are 2.5 to 10 in diameter are called coarse particles.

* They can penetrate and lodge deep inside the lungs and can cause health damages

- PM2.5 are particles less than 2.5 μm in diameter

* Particles less than 2.5 in diameter are called fine particles

* PM2.5 can penetrate the lung barrier and enter the blood system.

* Chronic exposure to particles contributes to the risk of developing cardiovascular and respiratory diseases, as well as of lung cancer.

- Since this is dangerous for the health it needs regulation

- The WHO standard for permissible levels of PM 2.5 in the air (annual) is 10 micrograms per cubic metre (μg/m3), but India's National Ambient Air Quality standard for PM 2.5 is four times higher at 40 μg/m3.

Stats

- When ranked by country, Bangladesh emerged as the most polluted followed by Pakistan and India respectively.

* China is the 12th most polluted country in the world.

* Of the countries analyzed, Iceland emerged as the one with the cleanest air.

- Every city from West Asia and Africa included in the report exceeded WHO guidelines for PM2.5, as did 99 per cent of cities in South Asia, 95 per cent in South-East Asia, and 89 per cent in East Asia.

Dubious distinction
Fifteen cities from India figure among the 20 most polluted places across the globe

Rank	City	2018*
1	Gurugram	135.8
2	Ghaziabad	135.2
3	Faisalabad, Pakistan	130.4
4	Faridabad	129.1
5	Bhiwadi	125.4
6	Noida	123.6
7	Patna	119.7
8	Hotan, China	116
9	Lucknow	115.7
10	Lahore, Pakistan	114.9
11	Delhi	113.5
12	Jodhpur	113.4
13	Muzaffarpur	110.3
14	Varanasi	105.3
15	Moradabad	104.9
16	Agra	104.8
17	Dhaka, Bangladesh	97.1
18	Gaya	96.6
19	Kashgar, China	95.7
20	Jind	91.6

*Average PM2.5 in µg/m³

Measures to be taken

- The launch this year of the National Clean Air Programme for 102 cities and towns, including the capital,
  * This Program talks of long-term benefits of mitigation programmes beyond 2024, and not a dramatic reduction in near-term pollution.
- This has to change, and an annual target for reduction be set to make governments accountable.
- Achieving a reduction within a short window is not impossible if there is the political will to reform key sectors: transport, biomass and construction.
- The Delhi government, which has done well to decide on inducting 1,000 electric buses, should speed up the plan and turn its entire fleet green.
- A transition to electric vehicles for all commercial applications, with funding from the Centre's programme for adoption of EVs, should be a priority in cities.
- Cutting nitrogen and sulphur emissions from industrial processes needs a time-bound programme supervised by the Environment Ministry.
- The monitoring of air quality in real time across cities and towns in India is far from adequate or uniform. Data for PM10 and PM2.5 needs to be accessed for real time implementation

17. Indian Forest Act, 2019

Context

- The Ministry of Environment, Forest and Climate Change (MoEF&CC) has finalized the first draft of the comprehensive amendments to the Indian Forest Act, 1927 (IFA).
- The Indian Forest Act, 2019 is envisaged as an amendment to the Indian Forest Act, 1927 and is an attempt to address contemporary challenges to India's forests.

Background

- The Indian Forest Act, 1927 was imposed by British rulers to take over Indian forests, use them to produce timber, while curtailing and extinguishing rights of millions
- The Indian Forest Act, 1927 has been criticized for years for providing immense discretion and powers to the forest bureaucracy to govern areas declared as forestlands of different classes and summarily arrest and prosecute forest-dwellers.
- On several occasions states have had to cancel prosecution in hundreds of thousands of cases of alleged petty crimes imposed against tribals and other forest dwellers.
- Many experts and several Central government reports submitted under different political dispensations have blamed the draconian powers of the forest bureaucracy under the Indian Forest Act, 1927

Definitions in the Draft

- Forest is defined to include "any government or private or institutional land recorded or notified as forest/forest land in any government record and the lands managed by government/community as forest and mangroves, and also any land which the central or state government may by notification declare to be forest for the purpose of this Act."
- "Village forests", according to the proposed Act, may be forestland or wasteland, which is the property of the government and would be jointly managed by the community through the Joint Forest Management Committee or Gram Sabha.
  * The amendment defines community as "a group of persons specified on the basis of government records living in a specific locality and in joint possession and enjoyment of common property resources, without regard to race, religion, caste, language and culture".
- The amendment also introduces a new category of forests — Production Forest. These will be forests with specific objectives for production of timber, pulp, pulpwood, firewood, non-timber forest produce, medicinal plants or any forest species to increase production in the country for a specified period.

Features

- It accords significant powers to India's forest officers — including the power issue search warrants, enter and investigate lands within their jurisdictions, and to provide indemnity to forest officers using arms to prevent forest-related offences.

- The legislation also proposes a forest development cess of up to 10% of the assessed value of mining products removed from forests, and water used for irrigation or in industries.

  * This amount would be deposited in a special fund and used "exclusively for reforestation; forest protection and other ancillary purposes connected with tree planting, forest development and conservation,"

- The aim is to strengthen the forest bureaucracy in terms of deciding on how to decide on [title claims] over forest land, what parts to declare [off-limits] for conservation, checking encroachments

- The Union government has proposed that the Centre will be able to intervene in the states on matters of management of forestlands, overruling the states on several counts when it deems fit.

- While the preamble of IFA, 1927, said the Act was focused on laws related to transport of forest produce and the tax on it,

  * The amendment has increased the focus to "conservation, enrichment and sustainable management of forest resources and matters connected therewith to safeguard ecological stability to ensure provision of ecosystem services in perpetuity and to address the concerns related to climate change and international commitments".

- The amendments specifically deal with the Forest Rights Act, 2006 (FRA). The amendments say if the state government, after consultation with the central government, feels that the rights under FRA will hamper conservation efforts, then the state "may commute such rights by paying such persons a sum of money in lieu thereof, or grant of land, or in such other manner as it thinks fit, to maintain the social organisation of the forest dwelling communities or alternatively set out some other forest tract of sufficient extent, and in a locality reasonably convenient, for the purpose of such forest dwellers".

Concerns

- It would lead to conflicts during implementation, particularly when seen in the context of the Forest Rights Act, 2006.

- Excessive powers to forest bureaucracy would not only directly clash with decentralised governance mechanism but also turn the country's forest into a police state.

- India's current dependence on import is to the tune of Rs 46,000 crore every year to meet its demand for wood. The idea of creating 'production forests' is catching imagination of all stakeholders while generating apprehensions.

18. Komodo Dragon

- It is a species of lizard found in the Indonesian islands of Komodo, Rinca, Flores, Gili Motang, and Padar

- IUCN: Vulnerable

- It is the largest living species of lizard, growing to a maximum length of 3 metres

- Their unusually large size has been attributed to island gigantism, since no other carnivorous animals fill the niche on the islands where they live

- The dragon has venom glands, which are loaded with toxins that lower blood pressure, cause massive bleeding, prevent clotting, and induce shock. They bite down with serrated teeth and pull back with powerful neck muscles. The result: huge gaping wounds. The venom then quickens the loss of blood and sends the prey into shock.

19. MoU on Antarctic cooperation between India and Argentina

Context

- A MoU was signed in February, 2019 between India and Argentina on Antarctic cooperation.

Salient features of the MoU :

- Scientific cooperation on projects in the fields involving Earth sciences and life sciences, as well as those related to the protection and conservation of the natural environment of Antarctica and the Southern Oceans.

- The exchange of scientific and bibliographical information related to the study of Antarctica, its environment and dependent and associated ecosystems.

- Exploring opportunities for exchanges of scientists.

- Participation of scientists and technical experts of the national Antarctic programme of one country in the national Antarctic programme of the other, if so required.

- Joint scientific conferences and workshops; hold bilateral meetings on the sidelines of major polar forum meetings, where feasible.

- Joint scientific publications.

- Training of scientific personnel.

Significance

- The MoU will help scientific cooperation on projects in the fields of Earth sciences, as well as those related to the protection and conservation of the natural environment of Antarctica and the Southern Oceans.

20. National Board for Wildlife (NBWL)

- It is constituted by the Central Government under Section 5 A of the Wildlife (Protection) Act, 1972 (WLPA).

- The WLPA mandates that without the approval/recommendation of the NBWL, construction of tourist lodges, alteration of the boundaries of PAs, destruction or diversion of wildlife habitat and de-notification of Tiger Reserves, cannot be done.

- The National Board for Wildlife has 47 members with the Prime Minister in the Chair.

- The Minister in charge of the Ministry of Environment & Forests in the Central Government is the Vice-Chairperson.

- The Additional Director General of Forests (WL) & Director, Wildlife Preservation is the Member-Secretary to the Board.

- The Board is responsible for promotion of conservation and development of wildlife and forests.

21. New Delhi Declaration- Rhinos without borders

Context

- The New Delhi Declaration adopted at the second meeting of the Asian rhino range countries underscored trans-boundary collaboration among India, Nepal, and Bhutan for the conservation and protection of the greater one-horned rhino.

- The declaration includes undertaking studies on health issues of the rhinos, their potential diseases and taking necessary steps; collaborating and strengthening wildlife forensics and strengthening of transboundary collaboration among India, Nepal and Bhutan for conservation of the Greater one-horned rhino.

- The declaration was signed to conserve and review the population of the Greater one-horned, Javan and Sumatran rhinos every four years to reassess the need for joint actions to secure their future.

Details

- There are no rhinos in Bhutan, but some from the Manas National Park in adjoining Assam or Buxa Tiger Reserve in West Bengal are known to cross over occasionally.

- Emphasis was also laid on expanding rhino domains within a country or between rhino range countries.

- The Sumatran rhino, the smallest of all rhino species and the only Asian rhino with two horns, became extinct in the wild in Malaysia

- Among the other decisions taken at the New Delhi meeting of the Asian rhino range countries was "making the best use of all available individuals and technologies" to accelerate natural and conservation breeding of the critically endangered Sumatran rhino.

- Part of the plan has been to replicate or develop upon the Kaziranga rhino conservation success story for Sumatran as well as the Javan rhino.

* Kaziranga had less than 10 rhinos when it was declared a protected area for the animal in 1905.

Stats

- The current global population of the Indian one-horned rhinoceros is 3,584.

- Assam's Kaziranga National Park has the bulk of 2,938 rhinos in India while Nepal 646.

- Indonesia and Malaysia are the other Asian countries where the last of the rhinos live.

22. Noise Pollution Maps

Context

- The National Green Tribunal (NGT) has directed the Central Pollution Control Board (CPCB) to prepare a noise pollution map and remedial action plan to solve the issue across the country.

Laws

Section-2 (A) of the Air (prevention and control of pollution) Act, 1981

- "air pollutant" means any solid, liquid or gaseous substance 2[(including noise)] present in the atmosphere in such concentration as may be or tend to be injurious to human beings or other living creatures or plants or property or environment;

- Central Government notified the Noise Pollution (Regulation and Control) Rules, 2000

State of Rajasthan v. G Chawla

- State can make laws in the exercise of its power under Entry 8, "Public Health and Sanitation of List II provided under Seventh Schedule".

- Thus, the states "have the right to control loud noises "

Classification

HOW **NOISE POLLUTION** IS CLASSIFIED

WHO identifies five sources

ROAD TRAFFIC   RAILWAYS   AIRCRAFT   WIND TURBINES   LEISURE

India frames noise pollution rules for zones

INDUSTRIAL   COMMERCIAL   RESIDENTIAL   SILENT

ROAD TRAFFIC
Values in decibels

WHO guidelines

Daytime limit **53**   Night-time limit **45***

*Noise higher than this level affects sleep
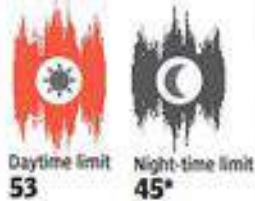
India has a higher threshold

Motorbikes, scooters & 3-wheelers **80**

Passenger cars & commercial vehicles **82-85**

Larger vehicles **89-91**

RAILWAY

WHO guidelines

Daytime limit **54**   Night-time limit **44**

India says people, especially in areas that have railway tracks, need protection from rail noise but there are no specifics

AIRCRAFT

WHO guidelines

Daytime limit **45**   Night-time limit **40**

India lays down safeguards, but does not cap safe decibel levels

India can make rapid progress in cutting noise pollution if we start with our roads. TOI has been raising awareness on this through a No-Honking campaign. Here are a few snapshots of our reports

NO HONKING DRIVE

WIND TURBINE

WHO guidelines

Below **45 dB** (no recommendation for night noise exposure)

India's ceiling for industrial or commercial areas is higher than WHO guidelines

Industrial area **75 70**   Commercial area **65 55**   Residential area **55 45**   Silence zone **50 40**

LEISURE

WHO says yearly average of all leisure noise sources should be **70 dB**
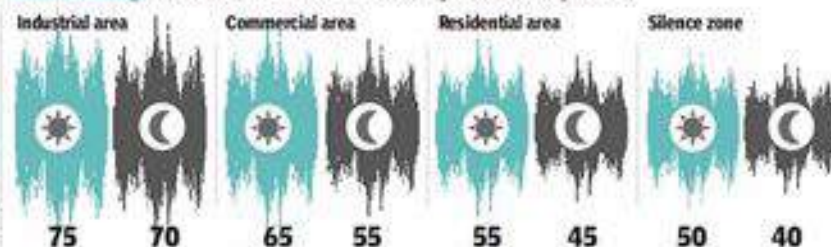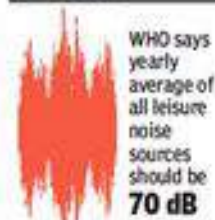
Indian rules say loudspeakers cannot be used between 10 pm and 6 am, noise level should not exceed the standard for the zone by more than **11 dB**

Firecrackers with noise of more than **90 dB** at 5m distance from the site of bursting are banned
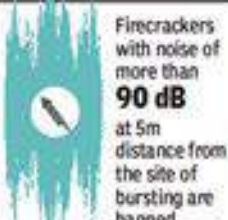
EFFECTS ON HEALTH

WHO says noise pollution causes sleep disturbance, hearing problems, heart disease and leads to poorer work performance

Less than **30 dB** noise in bedrooms at night for good quality sleep and less than **35 dB** in classrooms
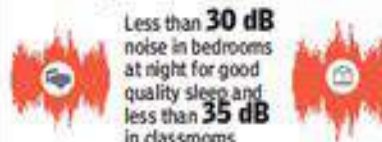
Health Concerns

- Noise pollution can cause annoyance and aggression, hypertension, high stress levels, tinnitus, hearing loss, sleep disturbances, and other harmful effects.
- Furthermore, stress and hypertension are the leading causes to health problems, whereas tinnitus can lead to forgetfulness, severe depression and at times panic attacks.
- High noise levels can contribute to cardiovascular effects and exposure to moderately high levels during a single eight hour period causes a statistical rise in blood pressure of five to ten points and an increase in stress

Details

- NGT has asked CPCB to identify hotspots and categorize the cities with specified hotspots and propose a remedial action plan
- Further, all State pollution control boards have been directed to undertake noise level monitoring along with police departments concerned.
- Manufacturing of public address systems with equipment that can monitor the noise pollution parameters and alert authorities once the prescribed limits are crossed.

23. Purple Frog/ Pig Nose Frog/ Nasikabatrachus Sahyadrensis

- IUCN: Endangered
- It can be found in the Western Ghats
- It has been reported from several locations in Kerala and a single location in Tamil Nadu. It has been recorded within protected areas including Anamalai Tiger Reserve, Periyar Tiger Reserve and Silent Valley national Park.

Features

- The tadpoles are rheophilic, which means they thrive in running water.
- According to a study published in the Journal of Asia-Pacific Biodiversity, the tadpoles tended to gather in large numbers only in areas with relatively higher water flow velocity.
- They also preferred steep, rocky slopes (65°-90° incline) and a water depth of 2-3 cm.
- Their specialized mouthparts, which are like suckers, help them to anchor onto rocky areas in flowing water for nearly 100 days.

Threats

- Dam construction led to loss of tadpole habitat
  * The damming effect can slow down the streams feeding water to the river.
- It is threatened by deforestation from expanding cultivation
- Human activities could pose a threat to its specialised breeding biology

24. Sundarban Wetlands

Context

- The Indian Sundarban was accorded the status of 'Wetland of International Importance' under the Ramsar Convention.

Details

- The Sundarbans comprises hundreds of islands and a network of rivers, tributaries and creeks in the delta of the Ganga and the Brahmaputra at the mouth of the Bay of Bengal in India and Bangladesh.
- Located on the southwestern part of the delta, the Indian Sundarban constitutes over 60% of the country's total mangrove forest area.
- It is the 27th Ramsar Site in India, and with an area of 4,23,000 hectares is now the largest protected wetland in the country.

Ramsar Convention

- The Convention on Wetlands of International Importance, better known as the Ramsar Convention, is an international agreement promoting the conservation and wise use of wetlands.
- It is the only global treaty to focus on a single ecosystem.
- The convention was adopted in the Iranian city of Ramsar in 1971 and came into force in 1975.

How did it qualify?

- The Indian Sundarban met four of the nine criteria required for the status of 'Wetland of International Importance' — presence of rare species and threatened ecological communities, biological diversity, significant and representative fish and fish spawning ground and migration path.
- The Indian Sundarban, also a UNESCO world heritage site, is home to the Royal Bengal Tiger.
- The Ramsar website points out that the Indian Sundarban is also home to a large number of "rare and globally threatened species, such as the critically endangered northern river terrapin (Batagur baska), the endangered Irrawaddy dolphin (Orcaella brevirostris), and the vulnerable fishing cat (Prionailurus viverrinus)."
- Two of the world's four horseshoe crab species, and eight of India's 12 species of kingfisher are also found here.
- Recent studies claim that the Indian Sundarban is home to 2,626 faunal species and 90% of the country's mangrove varieties.

Why is this important?

- Traditionally viewed as a wasteland or breeding ground of disease, wetlands actually provide freshwater and food, and serve as nature's shock absorber.+These trees have acted as a protective belt slowing down the waves and protecting the coastal Population

* It can reduce the devastating impact of tsunamis and coastal storms by absorbing some of the waves' energy

- Wetlands, critical for biodiversity: They are Home to an incredible array of species, mangroves are biodiversity hotspots. They provide nesting and breeding habitat for fish and shellfish, migratory birds, and sea turtles

  * But these are disappearing rapidly, with recent estimates showing that 64% or more of the world's wetlands have vanished since 1900.

- Fishers and farmers depend on their natural environment for fishing. Healthy mangrove ecosystems mean healthy fisheries and a source of livelihood

  * Major changes in land use for agriculture and grazing, water diversion for dams and canals and infrastructure development are considered to be some of the main causes of loss and degradation of wetlands.

What are the threats?

- The Indian Sundarban has over four million people live on its northern and northwestern periphery, putting pressure on the ecosystem.

  * So due to population growth and unsustainable economic development including deliberate land reclamation for urban and industrial development leading to chemical pollution and the ecosystem deteriorating

- Concerns have been raised about natural ecosystems being changed for cultivation of shrimp, crab, molluscs and fish.

  * The Ramsar Information Sheet lists fishing and harvesting of aquatic resources as a "high impact" actual threat to the wetland.

- The other threats are from dredging, oil and gas drilling, logging and wood harvesting, hunting and collecting terrestrial animals.

- Salinity has been categorised as a medium and tourism as a low impact actual threat in the region.

Will the status help?

- Environmentalists and forest officials say the Ramsar status will help to highlight conservation issues of the Sundarbans at the international level.

- The part of the Sundarban delta, which lies in Bangladesh, was accorded the status of a Ramsar site in 1992, and with Indian Sundarban getting it too, international cooperation between the two countries for the protection of this unique ecosystem will increase.

- This could lead to a better conservation strategy for flagship species such as the tiger and the northern river terrapin.

Conclusion

- Experts believe that while the Ramsar status may bring in international recognition to the Indian Sundarban, the wetland, which along with anthropogenic pressures, is also vulnerable to climate change and requires better management and conservation practices.

25. Supreme Court on Aravali

Background

- The Haryana Assembly on February 27 had passed the Punjab Land Preservation (Haryana Amendment) Bill, 2019, amending the Punjab Land Preservation Act (PLPA), 1900.

  * The Punjab Land Preservation Act, 1900, provided for conservation of subsoil water and prevention of erosion in areas found to be subject to erosion or likely to become liable to erosion, thus saving the Aravallis from rampant construction.

- This opened up thousands of acres of land to real estate and other non-forest activity in the area that was protected under it for over a century.

- The Bill takes the protective cover off the Aravalis and Shivaliks exposing nearly 28,000 acres of forest land to private builders and land sharks.

SC order in 2018

- In September 2018, the apex court had termed "frightening" the illegal construction in the forest area of Aravalli hills and directed the Haryana government to demolish the unauthorised structures built there after August 18, 1992.

26. United Nations Environment Assembly

Context:

- India pilots resolutions on Single-use Plastics and Sustainable Nitrogen management at Fourth United Nations Environment Assembly.

Details:

- In a significant first, India piloted resolutions on two important global environment issues relating to Single-use Plastics and Sustainable Nitrogen management at the fourth session of United Nations Environment Assembly (UNEA) which was held in Nairobi. UNEA adopted both the resolutions with consensus.

The theme of the UNEA 2019:

- Innovative Solutions for environmental challenges and sustainable production and consumption.

Why this resolution is important?

- The global nitrogen use efficiency is low, resulting in pollution by reactive nitrogen which threatens human health, eco system services, contributes to climate change and stratospheric ozone depletion.

- Only a small proportion of the plastics produced globally are recycled with most of it damaging the environment and aquatic bio-diversity.

- Both these are global challenges and the resolutions piloted by India at the UNEA are vital first steps towards addressing these issues and attracting focus of the global community.

Panel discussion on climate finance:

- The Indian delegation also participated in the panel discussion on "Need for additional commitments of public finance and the ways to maximize mobilization of climate finance".

- It was highlighted that climate finance is an important lever for climate action related to both mitigation and adaption in the developing countries.

- The contributions to climate finance need to be in consonance with the basic principles of common but differentiated responsibility and respective capabilities (CBDR-RC).

- Climate finance is more of an obligation of the developed countries, based on their historical emissions. The availability of sufficient, additional and predictable climate finance is a key for action.

- Importantly, the lack of pledged funds I n Green Climate Fund and the potential reliance on private sector has been highlighted by many developing countries. India has been initiating domestic climate actions, both related to climate change mitigation and adaptation, primarily through its own financial resources.

- There is a sense of urgency for financial support to developing countries, which have not been so responsible for these global environmental concerns.

About UN Environment Assembly:

- The United Nations Environment Assembly is the world's highest-level decision-making body on the environment.

- It addresses the critical environmental challenges facing the world today. Understanding these challenges and preserving and rehabilitating our environment is at the heart of the 2030 Agenda for Sustainable Development.

- The Environment Assembly meets biennially to set priorities for global environmental policies and develop international environmental law. Through its resolutions and calls to action, the Assembly provides leadership and catalyses intergovernmental action on the environment. Decision-making requires broad participation, which is why the Assembly provides an opportunity for all peoples to help design solutions for our planet's health.

27. World Forest Day/ International Day of Forests

- March 21 is the United Nations' (UN) International Day of Forests

- The Day celebrates and raises awareness of the importance of all types of forests.

    * On each International Day of Forests, countries are encouraged to undertake local, national and international efforts to organize activities involving forests and trees, such as tree planting campaigns.

- The theme for 2019 is Forests and Education.

28. World Water Day

- World Water Day is an annual UN observance day (always on 22 March) that highlights the importance of freshwater

- The day is used to advocate for the sustainable management of freshwater resources

- In 2010, the UN recognized "the right to safe and clean drinking water and sanitation as a human right that is essential for the full enjoyment of life and all human rights."

- Supreme Court has said Clean drinking water is a fundamental right

    * In the case of Subhas Kumar vs. State of Bihar (1991), it said that Article 21 of the Constitution guaranteeing right to life also includes the right to clean drinking water and the state is duty-bound to provide it.

- Sustainable Development Goal 6

    * Ensure availability and sustainable management of water and sanitation for all

- 2019 Theme: Leaving no one behind

WaterAid Report- "Beneath the Surface: The State of the World's Water 2019"

- WaterAid is an international non-profit organization

- The organization was first established in 1981 as a charitable trust at their main office premises in London.

India's Stats

- As many as one billion people in India live in areas of physical water scarcity, of which 600 million are in areas of high to extreme water stress

- This number is expected to go up to five billion by 2050

- At 24 per cent, India uses the most groundwater drawn out globally — more than that of China and US combined.

- The rate of groundwater depletion has increased by 23 per cent between 2000 and 2010. Also, India is the third largest exporter of groundwater — 12 per cent of the global total.

Global Stats

- Around 4 billion people in the world live in physically water-scarce areas, and 844 million don't have access to clean water close to home

- The world's water crisis is getting worse, globally we use six times as much water today as we did 100 years ago, driven by population growth and changes in diets and consumer habits.

- By 2040, it is predicted that 33 countries are likely to face extremely high water stress - including 15 in the Middle East, most of Northern Africa, Pakistan, Turkey, Afghanistan and Spain.

- Many - including India, China, Southern Africa, USA and Australia - will face high water stress.

Recommendation

- At the government and institutional levels, promotion of better agriculture practices, regulation of groundwater use and promotion of groundwater recharge will help integrate the shortfalls

HEALTH ISSUES

1. **Drugs and Clinical Trials Rules, 2019**

   Context
   - Centre notifies new rules for drugs, clinical trials.
   - The move is aimed at promoting clinical research in the country.

   Details
   - The rules will apply to all new drugs, investigational new drugs for human use, clinical trials, bio-equivalence studies and ethics committees.
   - There will be reduction in time for approving applications, which has now come down to 30 days for drugs manufactured in India and 90 days for those developed outside the country.
   - In case of no communication from Drugs Controller General of India, the application will be deemed to have been approved
   - As per the new rule the requirement of a local clinical trial may be waived for approval of a new drug if it is approved and marketed in any of the countries (EU, UK, Australia, Japan and US) specified by the Drugs Controller General with the approval of the government.
   - The new rules will ensure patient safety and an ethics committee will monitor the trials and decide on the amount of compensation in cases of adverse events

   Significance
   - The new Clinical Trial Rules are well balanced and will further the conduct of ethical and quality clinical trials in the country which, in turn, will benefit patients.
   - Clinical Research will now become predictable, transparent and effective regulations for such trials and also make faster accessibility of new drugs to Indian population
   - The new rules will ensure patient safety, as they would be enlisted for trials with informed consent.
   - The ethics committee will monitor the trials and decide on the amount of compensation in cases of adverse events.

2. **Drugs Technical Advisory Board (DTAB)**
   - It is India's top drug advisory body
   - It is the country's highest statutory decision-making body on technical matters related to medicines
   - It is established under the Drugs and Cosmetics Act, 1940.
   - It is part of Central Drugs Standard Control Organization (CDSCO) in the Ministry of Health

   - The DTAB is headed by Director General of Health Services

   Drug advisory board proposes stringent norms for medical devices

   Background
   - Currently of the 5,000-6,000 medical devices in the Indian market, there are only 23 notified medical devices under government control.
   - Lack of monitoring of these devices has created a vacuum of not having cases registered due to ill effects or malfunctioning of these devices

   Recommendations
   - It has recommended that the Health Ministry should notify all medical devices under the drug laws.
     * When enforced, medical devices will be recognised as drugs under Section 3 (b) (iv) of the Drugs and Cosmetics Act, 1940.
   - When prescribed, this translates into medical devices being treated as drugs, more stringent tracking systems, mandatory reporting of all adverse reactions and registration of device before it is allowed into the market.

3. **Food Safety and Standards Authority of India's (FSSAI) directive**

   Context
   - The Food Safety and Standards Authority of India's (FSSAI) has recently released a directive wherein Food Business Operators (FBOs), Hotels, which use edible cooking oil for Preparing food items will not be able to use oil more than three times in a day if their consumption of edible oil is more than 50 liters a day

   Details

   It is well known that repeated use of the same oil for frying of foods leads to changes in physiochemical, nutritional and sensory properties of the edible oil. In view of this, it is important to monitor the quality of oil and to avoid the use of degraded oil for cooking purposes
   - All FBOs whose consumption of edible oil for frying is more than 50 litres daily will now have to maintain records, including date, name of oil, quantity of oil taken for frying, quantity discarded at the end of the day, date and mode of disposal of used cooking oil, and discarded oil collected by agency authorised by the FSSAI or Commissioner of Food Safety of States/ UTS

Total Polar Compounds (TPC)

- The FSSAI regulation has now prescribed the limit for Total Polar Compounds (TPC) to be a maximum of 25% and any vegetable oil that has Total Polar Compounds beyond this limit will be considered unsuitable for use in cooking foods.
  * As oil is heated to smoking point, the TPC value of oil increases.
  * This is hazardous to one's health, especially in the longer run as it increases trans-fat content in oil.
  * Higher level of TPC in cooking oil leads to health issues like hypertension, atherosclerosis, Alzheimer's disease and liver disease.
  * One of the studies also noticed high levels of glucose, creatinine and cholesterol with declined levels of protein and albumin in cooking oil.

Significance

- It is a step towards improving the health conditions of people in the country. The idea is to eradicate the practice of reusing the oil and understanding its harmful effects.
- Currently, used cooking oil is either discarded or disposed of in such a manner that it chokes drains and sewerage systems.
  * Apart from setting quality standards, the new regulation has also addressed the way this oil is discarded.
- As used cooking oil is considered the most reasonable feedstock for biodiesel production, the FSSAI is planning to redirect the used cooking oil from the food business operators.

Concerns

- Karnataka is the first State to have a Bio Energy Development Board and re-used cooking oil is being collected from big chains of restaurants by biodiesel manufacturing units
- But there are due concerns raised.
  * The main issue is regarding the registration of such units
  * Empanelment of aggregators collecting Repurpose Used Cooking Oil (RUCO).

Way forward

Triple E strategy

- "First 'E' in the 'Triple E Strategy' is 'Education' that is educating both the consumers and food businesses about public health consequences of spoiled 'used cooking oil'.
- Second 'E' is 'Enforcement', particularly amongst large food processing plants, restaurants and fast-food joints that are frying food in large quantities
- Third 'E' is developing an 'Ecosystem' for collection of used cooking oil and producing biodiesel from it "

4. Janaushadhi Diwas

Context:

- To providing further impetus & creating awareness about use of generic medicines, it has been decided to celebrate 7th March 2019 as 'Janaushadhi Diwas' across India.

About PMBJP:

- Bureau of Pharma PSUs of India (BPPI) is the implementing agency of Pradhan Mantri Janaushadhi Pariyojana (PMBJP). BPPI was established in December, 2008 under the Department of Pharmaceuticals, Government of India.
- Vision: To bring down the healthcare budget of every citizen of India through providing Quality generic Medicines at Affordable Prices.
- Objectives of the scheme: Making quality medicines available at affordable prices for all, particularly the poor and disadvantaged, through exclusive outlets "Pradhan Mantri Bhartiya Janaushadhi Kendras", so as to reduce out of pocket expenses in healthcare.

Few facts about PMBJP:

- Over 5050 Janaushadhi stores functional across 652 districts in the country each block in the country to have a PMBJP Kendra by 2020.
- Market share of generic medicines has grown over three fold from 2% to 7%in last 3 years.
- The PMBJP scheme has led to total savings of approximately Rs.1000 crores for common citizens, as these medicines are cheaper by 50% to 90% of average market price.

Generic medicine:

- Generic drugs are marketed under a non-proprietary or approved name rather than a proprietary or brand name. Generic drugs are equally effective and inexpensive compared to their branded counterparts.

5. Spurious Drugs

Context

- According to figures provided by the Drug Controller, India has been able to decide only 35 cases of the 606 prosecutions launched against the manufacture, sale and distribution of spurious or adulterated drugs from 2015 to 2018

Law and Definition

- Under the Drugs and Cosmetics (Amendment) Act 2008, any drug is deemed to be adulterated or spurious when used by any person for or in the diagnosis, treatment, mitigation or prevention of any disease or disorder is likely to cause his death or is likely to cause such harm on his body.

The Drug and Cosmetic Act 1940 and Rules 1945, a central legislation regulating the manufacture, sale, and quality of drugs and formulations in India provide definition of 'Spurious Drug' under its section 17-B.

- If it is manufactured under a name which belongs to another drug; or
- If it is imitation of, or is a substitute for, another drug or resembles another drug in a manner likely to deceive or bears upon it or upon its label or container the name of another drug unless it is plainly and conspicuously marked so as to reveal its true character and its lacks of identity with such other drug; or
- If the label or container bears the name of an individual or company purporting to be manufacturer of the drug; which individual or company is fictitious or does not exist; or
- It has been substituted wholly or in part by another drug or substance or
- If it purports to be the product of manufacturer of whom it is not truly a product.

Stats

- According to a study by the World Health Organization (WHO) in 2017, about 10 per cent of the medicines consumed in low- and middle-income countries, including India, are "substandard and falsified".
- In 2017 a two-year-long nationwide survey was conducted under the supervision of the Central government, which found that around 10 per cent of the drugs in the government supply chain are "not of standard quality".

What drives trade in fake drugs?

- It is lack of adequate regulations, shortage of drug inspectors and a lack of lab facilities to check purity of drugs
- Lack of awareness among consumers
- Lack of law enforcement.

Recommendation

- The 54th Parliamentary Standing Committee on Chemicals and Fertilizers said Special courts should be opened in all states/UT and these courts should be impressed upon the need for timely disposal of cases
    * Take adequate measures to considerably increase the number of samples of drugs to be tested so as to instill fear in those who indulges in sale/distribution of spurious/non-standard quality drugs.
    * Strengthening of existing and creation of new drug testing laboratories is essential to ensure the quality of drugs being produced in India
- Mashlekar Committee in 2003
    * Sale and manufacture of spurious drugs should be made cognizable and non-bailable.

6. Troponin

- It is a complex of three regulatory proteins (troponin C, troponin I, and troponin T) that is integral to muscle contraction in skeletal muscle and cardiac muscle, but not smooth muscle.
- Troponin T is a cardiac protein that is released into the bloodstream after a heart attack when the heart muscle has been damaged
- The more damage there is to the heart, the greater the amount of troponin T and I there will be in the blood.

Context

- A low-cost, ultra-sensitive device that is capable of detecting the cardiac biomarker troponin T protein has been fabricated by a research team from the Indian Institute of Technology (IIT) Hyderabad.

Details

- Unlike the commercially available test that can detect the protein at nanogram per ml concentration, this device can detect the protein at an extremely low concentration of femto gram per ml.
- This could help pave the way for early diagnosis of a heart attack, increasing a patient's survival rate.
- It even has the potential to be able to predict the onset of a heart attack.

7. West Nile fever

- It is a viral infection typically spread by Culex mosquitoes
- West Nile virus transmits to humans through bites from infected mosquitoes.
    * In addition to humans, WNV can also cause severe disease and death in horses and donkeys.
- Mosquitoes become infected when they feed on infected birds
- Symptoms include fever, headache, tiredness, and body aches, nausea, vomiting, occasionally with a skin rash on the trunk of the body, and swollen lymph glands.
- Infection can also happen through blood transfusion or organ/tissue/cell transplants.
- There is no specific treatment for WNF in humans other than symptomatic therapy. This often involves hospitalization, intravenous fluid therapy and respiratory support.

8. World Hearing Day

- It is held on 3 March each year to raise awareness on how to prevent deafness and hearing loss and promote ear and hearing care across the world.

Stats

- As per a WHO estimate, there were 466 million persons in the world with hearing loss in 2018 and the figure is likely to increase to 630 million by 2030.

HearWHO app

- Raise awareness about the importance of hearing

- Encourage people to check their hearing regularly and practice safe listening

- Allow health workers to check the hearing status of people in their communities

9. World Kidney Day

Context

- World Kidney Day is observed annually on the 2nd Thursday in March.

Theme for 2019:

- Kidney Health for Everyone Everywhere.

Details:

- WKD is a joint initiative of the International Society of Nephrology (ISN) and the International Federation of Kidney Foundations (IFKF).

- World Kidney Day started in 2006 and has not stopped growing ever since. Every year, the campaign highlights a particular theme.

  * 2018 Kidneys & Women's Health. Include, Value, Empower

  * 2017 Kidney Disease & Obesity – Healthy Lifestyle for Healthy Kidneys.

About kidney diseases:

- 850 million people worldwide are now estimated to have kidney diseases from various causes.

- Chronic kidney disease (CKD) causes at least 2.4 million deaths per year and is now the 6th fastest growing cause of death.

- Despite the growing burden of kidney diseases worldwide, kidney health disparity and inequity are still widespread. Kidney Health for Everyone Everywhere calls for universal health coverage (UHC) for prevention and early treatment of kidney diseases.

About ISN:

- The International Society of Nephrology (ISN) is a philanthropic organization dedicated to advancing worldwide kidney health. It build capacity with healthcare professionals via granting programs, education and research. By connecting communities, it develops a stronger understanding of how to manage kidney diseases and engage in a collaborative effort to improve prevention, diagnosis and treatment.

About IFKF:

- Unli The International Federation of Kidney Foundations leads the way in the prevention and treatment of kidney disease, through its Membership on all continents around the world. The Federation was formed to foster international collaboration and the exchange of ideas that will improve the health, well-being and quality of life of individuals with kidney disease.

10. World Tuberculosis Day

Context

- World Tuberculosis Day is observed every year on 24th March, to commemorate the anniversary of Dr. Robert Koch's discovery of the Tuberculosis (TB) bacteria in 1882.

THEME -2019:

- The theme of World Tuberculosis Day this year is "It's Time".

- Consistent with the spirit of this theme, India has renewed its commitments and intentions to end TB by 2025, five years ahead of the global targets. This is an ambitious timeline and, given our motivation to eliminate the disease, it is achievable.

What is TB?

- Tuberculosis (TB) is caused by bacteria (Mycobacterium tuberculosis) that most often affect the lungs. Tuberculosis is curable and preventable.

How does it spread?

- TB is spread from person to person through the air. When people with lung TB cough, sneeze or spit, they propel the TB germs into the air. A person needs to inhale only a few of these germs to become infected.

What are Latent TB and active TB?

- Latent TB: In this condition, one will have a TB infection, but the bacteria remain in your body in an inactive state and cause no symptoms. Latent TB, also called inactive TB or TB infection, isn't contagious. It can turn into active TB, so treatment is important for the person with latent TB and to help control the spread of TB. About one-third of the world's population has latent TB.

- Active TB: This condition makes one sick and in most cases can spread to others. It can occur in the first few weeks after infection with the TB bacteria, or it might occur years later.

Integrate TB services with primary health system: Lancet

Stats on Tuberculosis

- Of the 10 million new tuberculosis (TB) cases reported globally in 2017 by the World Health Organisation, 2.74 million were from India, showing a marginal reduction from 2.79 million in 2016.

- Despite TB incidence in the country being 204 cases per 1,00,000 in 2017, the government has set a highly ambitious target of "eliminating TB by 2025", five years ahead of the Sustainable Development Goals (SDGs) target.

Concerns

- India has set an ambitious goal of eliminating TB by 2025, but integration of TB services with the primary health system to reduce diagnostic delays is not happening.

* Patients are not diagnosed and treated at the primary level, which is the first point of contact. Only this will lead to early diagnosis and help cut the transmission cycle

The Lancet Global Health article

* But according to The Lancet Global Health article based on modelling for three high-burden countries, including India, compared with 2015 data, 57% reduction in incidence and 72% reduction in mortality will been seen only by 2035.

* Strengthening the care cascade could reduce cumulative TB incidence by 38% in the case of India, it notes.

* India has to adopt measures to prevent TB on a population level to eliminate the disease in the coming decades, it adds.

  * The India report card says diagnosis and treatment for drug-sensitive and drug-resistant TB need improvement.

  * Modelling suggests that lives of eight million (28%) people with TB can be saved over the next 30 years if tests are subsidised and patients are supported to complete the treatment.

  * The Lancet Commission recommends that India should scale up access to TB services for all those seeking them, optimise engagement of private sector providers and guarantee universal access to drug susceptibility testing and second line TB drugs.

ART AND CULTURE

1. 'Azaadi Ke Diwane' Museum at Red Fort Complex

Context:

- The Minister of State for Culture (Independent charge) inaugurated 'Azaadi ke Diwane' museum at Red Fort, Delhi, created by Archaeological Survey of India (ASI).

Details:

- The museum within the Red Fort complex pays homage to all the unsung heroes of freedom struggle of the nation, who would have otherwise been merged away in forgetfulness.

- Museum talks about the sacrifices of great freedom fighters. It pays tribute to the selfless sacrifices of the revolutionaries, brave female freedom fighters and valiant children.

Other museums at Red fort:

The Yaad-e-Jallian museum:

- The It provides an authentic account of Jallianwala Bagh massacre that happened on April 13th, 1919. The museum also showcases heroism, valour and sacrifices made by Indian soldiers during World War-I.

The Museum on 1857:

- India's first war of Independence portrays the historical narrative of 1857 war of independence, showcasing the valour and sacrifices made by Indians during the period.

The Drishyakala- Museum on Indian Art:

- The Drishyakala- Museum on Indian Art showcases Indian art works from 16th century till India's independence.

2. Belum Caves

- Belum Caves, also known as Belum Guhalu is in Andhra Pradesh

- Belum Caves have a length of 3,229 m (10,593.8 ft), making them the second largest caves on the Indian Subcontinent after the Krem Liat Prah caves in Meghalaya.

- It is known for its speleothems, such as stalactite and stalagmite formations.

- This cave system was formed over the course of tens of thousands of years by the constant flow of underground water

- It is one of the centrally protected Monuments of National Importance

- There is a water source below, called the patala ganga with a lingam.

3. Danda Nata

- It is one of the most ancient folk dances of Orissa and is performed in the district of Ganjam.

- The dance is done mainly to worship Lord Shiva

- Only male persons take part in this festival

- The participants are known as the 'Bhoktas'.

4. Doul Utsav

- The festival is celebrated at Barpeta in western Assam in a Vaishnav monastery that Madhabdev established in 1583.

- Madhabdev was the prime disciple of Srimanta Sankardeva

  * Madhabdev wrote a few Doul songs such as Faku khele karunamoy (The Lord full of compassion plays Holi) and Dolai Gobinda paramanande (Krishna plays Holi blissfully) for ritualistic celebration of the festival.

  * Borgeets are a collection of lyrical songs that are set to specific ragas but not necessarily to any tala.

  * These songs, composed by Srimanta Sankardeva and Madhavdeva in the 15th-16th centuries, are used to begin prayer services in monasteries associated with the Ekasarana Dharma; and they also belong to the repertoire of Music of Assam outside the religious context

- Sankardev inspired the Bhakti movement in Assam just as Guru Nanak, Ramananda, Namdev, Kabir, Basava and Chaitanya Mahaprabhu inspired it elsewhere in the Indian subcontinent.

- The three days Doul is called "Deka Doul" and four or five days Doul is called "Bura Doul".

5. Fag Festival

- The Fag festival/ Phag fair is a historic traditional festival is celebrated in the state of Himachal Pradesh to welcome Hindu New Year.

- Phag is derived from the Sanskrit word Phalgun or Fagun.

- The Phag festival showcases the cultural heritage of Himachalis (the residents of Himachal Pradesh). Fourteen deities from five districts; Shimla, Kullu, Manali, Kinnaur and Lahaul and Spiti, take part in the fair that is celebrated with much devotion and cultural display.

- Villagers from Kullu and Shimla districts on both sides of Sutlej River come to take the blessings of the deities.
- Apart from being an auspicious fair, Phag festivities are also an occasion for the farmers to congregate and meet each other.

6. Firoz Minar

- It is located in Gaur Road in West Bengal.
- It was built by Saifuddin Firuz Shah, the second ruler of Bengal's Habshi dynasty.
- The structure is a five-storey tower, which resembles the Qutub Minar.
- It features a spiralling flight consisting of 84 steps, by ascending one can reach the top of the tower.
- It is locally known as Pir Asa Mandir and Chiragh Dani. Since asa means staff it could refer to a local saint, since chiragh dani means where lamps are lit.

Gaur

- Lakshmanavati, as Lakhnauti was known originally, was ruled by the Palas and then the Senas.
- King Lakshman Sena laid Gaur's foundations and made it his capital in 1179. Sultan Iltutmish's general Bakhtiyar Khilji defeated him in 1202.
- After the Delhi Sultans, various rulers from the Ilyas Shahi, house of Raja Ganesh, Habshi dynasty, and the Hussain Shahi dynasty ruled from 1338 onwards till Sher Shah Suri sacked it in 1539.

7. Gond paintings

- Gond comes from the Dravidian expression, Kond which means 'the green mountain'.
- Gond paintings are a form of painting from folk and tribal art that is practiced Gond tribe in India
- Gond paintings are considered to be from predominantly from Madhya Pradesh, it is also quite common in Andhra Pradesh, Maharashtra, Chhatisgarh and Odisha.

Features

- According to the Gond belief system, each and everything whether it is a hill, river, rock or a tree is inhabited by a spirit and, consequently, is sacred. So the Gond people paint them as a form of respect and reverence.
- Gond paintings are a reflection of man's close connection with his natural surroundings.
- Gond paintings can also take inspiration from myths and legends of India or alternatively, they may also showcase images from the daily lives of the tribe. It can also showcase abstract concepts like emotions, dreams and imagination.
- The Gond paintings stand out for use of bright colours and intricate lines. The Gond art mostly represents a tree emerging out of birds (peacocks) and animals (ox, horse, deer, elephant and tiger).

Context

- Tribal artists make a splash on online platform
- The paintings of tribal artists from the remote agency areas of Telangana have arrived on a global platform of Amazon, the largest e-commerce market place.

Other Paintings

- The Koya artists draw on the surface motifs of their sacred 'Hariveni' posts, sacred flags and big bottle gourds.
- The paintings of Naikpod tribals are reflections of face masks of their kings, Pandavas like Bheema, and traditional village temple deities.

8. India Bags First Prize at the International 'Golden City Gate Tourism Awards 2019'

Context:

- The Ministry of Tourism, Government of India has won the First Prize in the category of TV Cinema Spot at the prestigious international Golden City Gate Tourism Awards 2019.
- Following promotional films / television commercials produced by the Ministry as part of its Incredible India 2.0 Campaign received the awards:

About Golden City Gate Tourism awards:

- The Golden City Gate Tourism Multi-media Awards are given annually in various categories related to the Tourism and Hospitality sectors. The 'Golden City Gate' is a creative multi-media international competition for countries, cities, regions and hotels.
- The entries received for the awards are judged by an international jury comprising film and tourism experts. The annual award ceremony takes place at ITB Berlin, the world's leading tourism trade show.

About Incredible India 2.0 Campaign:

- The Ministry of Tourism has launched the Incredible India 2.0 Campaign in September 2017.
- The 2.0 Campaign marks a shift from generic promotions across the world to market specific promotional plans and content creation.
- Thematic creatives on different Niche tourism products have been produced and are being used in the Campaign, to cater to diverse consumer interests.
- These include the above Television Commercials on Yoga, Wellness, Wildlife, Luxury and Cuisine, which have been very well received the world over, registering about 155 million views on social media.
- The commercials have been produced in English with voice-overs in 9 international languages, viz. German, French, Spanish, Italian, Russian, Chinese, Japanese, Korean and Arabic.

9. **Nowruz**

- It is the Iranian New Year

- It is also known as the Persian New Year

- It usually occurs on March 21 or the previous or following day, depending on where it is observed.

- The festival, which marks the first day of spring, is celebrated across regions that once made up the ancient Persian empire, including parts of Iraq, Turkey, Syria, Iran and Afghanistan

- In India, the Parsi community, who follow Zoroastrianism, celebrate Navroz with full fervour

  * In India, prominent numbers of the Parsi community still remain in Mumbai and Gujarat,

  * People decorate their houses and wear new clothes on the occasion of Navroz. A visit to the Fire Temple, the place of worship of the Parsi community, is a ritual followed on Navroz

What are the origins of Navroz?

- It dates back as far as the 6th Century BC, back when the Iranian community were homogeneously Zoroastrians.

- Once the community divided over the course of history, people of Iranian origin worldwide continued following Zoroastrian traditions and with that the Iranian New Year as well.

What is the significance of Navroz?

- It is also marked as the day King Jamshid was crowned as the King of Persia. King Jamshid holds a great significance in Zoroastrianism and the day of his coronation is generally considered to be the beginning of the New Year among Iranian people.

- It is interestingly the first day of the Aries constellation.

- Navroz is also the day of the Spring equinox and the rituals are performed based on the movements of the sun during the course of the day.

10. **Thakurani Jatra Festival**

- It is a festival of Berhampur in Odisha

- Goddess Budhi Thakurani is considered to be a family member of Desibehera, the leader of the Dera community of Berhampur.

- Dera is a weaver clan which has made Berhampur famous as a 'silk city'.

- As homage to the goddess, people of all ages, including children and the elderly, transform themselves into various characters from Indian mythology through body painting. The number of devotees in the garb of mythological characters increase towards the last days of the festival. Hundreds of them come out in processions with different themes

11. **Tholpava koothu**

- It is a unique shadow puppet theatre form of Kerala, is preserved as a family tradition by the Pulavars.

- It is an ancient peculiar ritualistic art form dedicated to Bhagavati, worshiped by the people of Kerala as the Mother Goddess.

- As a ritualistic art form, Tolpava Koothu is performed during the months of January to May at the especially constructed theatre called Koothu Madam in front of the Bhagavati temple.

- It is believed to have originated in the ninth century AD and uses Kamba Ramayana as its basic text.

12. **Vijaya Utsav**

- It is Hampi Festival also locally known as the Vijaya Utsav.

- The festival is all about dance, music, drama, puppet shows, vibrant processions and fireworks

- Hampi used to be an ancient town in the erstwhile Vijayanagara Empire.

- The present Hampi Festival is reminiscent of the festival of those times.

DISASTER MANAGEMENT

1. **Cyclone Idai: India reaches out to Mozambique**

   - Cyclone Idai is a tropical storm, which hit southern Africa

   - The region has been hit by widespread flooding and devastation affecting Mozambique, Zimbabwe and Malawi.

   - Idai originated from a tropical depression that formed off the eastern coast of Mozambique

   India's helping Hand

   - The Indian Navy had launched a Humanitarian Assistance and Disaster Relief (HADR) operation in coordination with local officials to evacuate about 5,000 people stranded at Buzi near Port Beira in Mozambique

     * The Navy has made HADR assistance a major tool of its foreign cooperation initiative in the Indian Ocean Region (IOR) which has a high incidence of natural disasters.

   - Helicopter operations were also planned to assist the rescue efforts.

   - Navy ships provided food, clothes, medicine and potable water to the affected people.

   About IDAI cyclone:

   - Intense Category 3 Tropical Cyclone IDAI is regarded as one of the worst tropical cyclones on record to affect Africa and the Southern Hemisphere as a whole. The storm caused catastrophic damage in multiple nations, leaving more than 400 people dead and hundreds more missing.

   Tropical cyclone scales:

   - Australia and Fiji:

   Tropical cyclones that occur within the Southern Hemisphere to the east of 90°E officially use the Australian tropical cyclone intensity scale.

   North Indian ocean:

   - Any tropical cyclone that develops within the North Indian Ocean between 100°E and 45°E is monitored by the India Meteorological Department use the following scale.

Atlantic, Eastern and Central Pacific:

- The Tropical cyclones that occur within the Northern Hemisphere to the east of the anti-meridian, are officially monitored by either the National Hurricane Center or the Central Pacific Hurricane Center. And uses the Saffir-Simpson scale.

Category	Wind speeds (for 1-minute maximum sustained winds)			
	m/s	knots (kn)	mph	km/h
Five	≥ 70 m/s	≥ 137 kn	≥ 157 mph	≥ 252 km/h
Four	58–70 m/s	113–136 kn	130–156 mph	209–251 km/h
Three	50–58 m/s	96–112 kn	111–129 mph	178–208 km/h
Two	43–49 m/s	83–95 kn	96–110 mph	154–177 km/h
One	33–42 m/s	64–82 kn	74–95 mph	119–153 km/h

Western pacific:

- Any Tropical cyclones that occur within the Northern Hemisphere between the anti-meridian and 100°E, are officially monitored by the Japan Meteorological Agency.

Tropical Cyclone Intensity Scale

Category	Sustained winds
Typhoon	≥64 knots ≥118 km/h
Severe Tropical Storm	48–63 knots 89–117 km/h
Tropical Storm	34–47 knots 62–88 km/h
Tropical Depression	≤33 knots ≤61 km/h

2. **International Workshop on Disaster Resilient Infrastructure**

Context:

- Second International Workshop on Disaster Resilient Infrastructure (IWDRI) is the workshop organised by the National Disaster Management Authority (NDMA) in collaboration with United Nations Office for Disaster Risk Reduction (UNISDR), and in partnership with the Global Commission on Adaptation, United Nations Development Programme and the World Bank.

Aims of Work shop:

- Identify good practices of disaster risk management in key infrastructure sectors,

- identify specific areas and pathways for collaborative research on DRI (Transport, Energy, Telecom and Water),

- Discuss and co-create the broad contours of the Coalition for Disaster Resilient Infrastructure (CDRI) as well as a notional roll-out plan for the next three years, and

- Build a forum for members to work on areas of common interest and make specific commitments.

Details:

- Workshop brings together countries from different parts of the world, multilateral development banks, UN agencies, academia and research institutions, the private sector, academics and policy think tanks to discuss and collaborate on promoting policies and practices towards achieving disaster resilience of large infrastructure systems (transport, telecom, energy, water). This will also be a great opportunity to learn from the unique experiences of different countries.

The Sendai Framework for Disaster Risk Reduction AND SDG 9:

- Various international agreements have also reiterated the importance and long-term benefits of investing in resilient infrastructure. The Sendai Framework for Disaster Risk Reduction (SFDRR), 2015-2030, which is the first major agreement of the post-2015 development agenda, identifies investing in Disaster Risk Reduction (DRR) for resilience and to build back better in reconstruction as priorities for action towards reducing disaster risk.

- Similarly, Goal 9 of the Sustainable Development Goals (SDGs) recognizes disaster resilient infrastructure as a crucial driver of economic growth and development.

GOVERNANCE

1. Festival of Innovation and Entrepreneurship (FINE)

- FINE is an initiative to recognize, respect, showcase, and reward innovations and to foster a supportive ecosystem for innovators, is being organized by Rashtrapati Bhavan in association with the Department of Science and Technology, Government of India and the National Innovation Foundation

- FINE will provide a platform for innovators for building linkages with potential stakeholders whose support can improve their prospects in coming years to develop their ideas into implementable projects for the larger social good.

- It will also help in promoting lateral learning and linkages among the innovators to enrich the ecosystem for sharing of ideas.

- It will provide a window to showcase creative and innovative solutions for social development through innovation emerging from grassroots, student ideas and other technologies.

- These innovations can positively impact fields such as agriculture, rural development, sanitation, health, women and child development, biotechnology and medicine.

2. Lokpal

Context

- Justice Pinaki Chandra Ghosh was appointed as India's first Lokpal.

Selection

- Selection of chairperson and members of Lokpal through a selection committee consisting of PM, Speaker of Lok Sabha, leader of opposition in Lok Sabha, Chief Justice of India or a sitting Supreme Court judge nominated by CJI.

- Eminent jurist to be nominated by President of India on basis of recommendations of the first four members of the selection committee "through consensus".

Who are the public servants covered by the Act?

- The Lokpal has jurisdiction to inquire into allegations of corruption against anyone who is or has been Prime Minister, or a Minister in the Union government, or a Member of Parliament, as well as officials of the Union government under Groups A, B, C and D.

- Also covered are chairpersons, members, officers and directors of any board, corporation, society, trust or autonomous body either established by an Act of Parliament or wholly or partly funded by the Centre.

- It also covers any society or trust or body that receives foreign contribution above ₹10 lakh.

What happens if a charge is made against the PM?

- The Lokpal cannot inquire into any corruption charge against the Prime Minister if the allegations are related to international relations, external and internal security, public order, atomic energy and space, unless a full Bench of the Lokpal, consisting of its chair and all members, considers the initiation of a probe, and at least two-thirds of the members approve it.

- Such a hearing should be held in camera, and if the complaint is dismissed, the records shall not be published or made available to anyone.

How can a complaint be made and what happens next?

- A complaint under the Lokpal Act should be in the prescribed form and must pertain to an offence under the Prevention of Corruption Act against a public servant.

- There is no restriction on who can make such a complaint. When a complaint is received, the Lokpal may order a preliminary inquiry by its Inquiry Wing, or refer it for investigation by any agency, including the CBI, if there is a prima facie case.

- Before the ordering of an investigation by the agency, the Lokpal shall call for an explanation from the public servant to determine whether a prima facie case exists. This provision, the Act says, will not interfere with any search and seizure that may be undertaken by the investigating agency.

- The Lokpal, with respect to Central government servants, may refer the complaints to the Central Vigilance Commission (CVC). The CVC will send a report to the Lokpal regarding officials falling under Groups A and B; and proceed as per the CVC Act against those in Groups C and D.

What is the procedure for preliminary inquiry?

- The Inquiry Wing or any other agency will have to complete its preliminary inquiry and submit a report to the Lokpal within 60 days. It has to seek comments from both the public servant and "the competent authority," before submitting its report.

- There will be a 'competent authority' for each category of public servant. For instance, for the Prime Minister, it is the Lok Sabha, and for other Ministers, it will be the Prime Minister. And for department officials, it will be the Minister concerned.

- A Lokpal Bench consisting of no less than three members shall consider the preliminary inquiry report, and after giving an opportunity to the public servant, decide whether it should proceed with the investigation. It can order a full investigation, or initiate departmental proceedings or close the proceedings. It may also proceed against the complainant if the allegation is false.

- The preliminary inquiry should normally be completed within 90 days of receipt of the complaint.

What happens after the investigation?

- The agency ordered to conduct the probe has to file its investigation report in the court of appropriate jurisdiction, and a copy before the Lokpal. A Bench of at least three members will consider the report and may grant sanction to the Prosecution Wing to proceed against the public servant based on the agency's chargesheet. It may also ask the competent authority to take departmental action or direct the closure of the report.

- Previously, the authority vested with the power to appoint or dismiss a public servant was the one to grant sanction under Section 197 of the Code of Criminal Procedure and Section 19 of the Prevention of Corruption Act. Now this power will be exercised by the Lokpal, a judicial body. In any case, the Lokpal will have to seek the comments of the 'competent authority' as well as the public servant's comments before granting such sanction.

Who are the functionaries of the Lokpal?

- The Lokpal will have a Secretary, who will be appointed by the Lokpal Chairperson from a panel of names prepared by the Central government.

- The Secretary will be of the rank of Secretary to the Government of India. The Lokpal will have to appoint an Inquiry Wing, headed by a Director of Inquiry, and a Prosecution Wing, headed by a Director of Prosecution.

- Until these officers are appointed, the government will have to make available officers and staff from its Ministries and Departments to conduct preliminary inquiries and pursue prosecution. The institution will also have to appoint other officers and staff.

Is there any norm for disclosure of assets?

- Yes. Public servants will have to declare their assets and liabilities in a prescribed form. If any assets found in their possession is not declared, or if misleading information about these are furnished, it may lead to an inference that assets were acquired by corrupt means.

- For public servants under the State governments, the States have to set up Lok Ayuktas to deal with charges against their own officials.

3. **Officers with six months' tenure can be named DGP: Supreme Court**

Context

- The Supreme Court has clarified that the post of Director General of Police (DGP) of a State was reserved for the best.

- It was meant neither for the political establishment's favourite officers, who were on the verge of retirement, nor only for those with a minimum residual tenure of two years before superannuation

What did SC say?

- Dispelling confusion regarding an earlier order issued in 2018, a Bench led by Chief Justice of India Ranjan Gogoi said senior police officers with a residual tenure of six months before normal retirement could be considered for the post of DGP.

- It said that preparation of panel should be purely on the basis of merit from officers who have a minimum residual tenure of six months

Background

- The order came on a plea by former Uttar Pradesh DGP Prakash Singh, who contended that the Union Public Service Commission (UPSC) was only considering police officers with a minimum two years' residual tenure for appointment as DGP.

- This had led to many competent officers being overlooked.

4. **One Nation One Card**

- It is an inter-operable transport card

- A customer may use this single card for making payments across all segments including metro, bus, suburban railways, toll, parking etc

- In London, an individual can buy one card (Oyster card) and can travel on the bus, metro and even suburban trains using that card.

5. **Police Encounters**

Supreme Court of India Guidelines

- In PUCL VS State of Maharashtra SC had issued the following Guidelines in the matters of investigating police encounters as the standard procedure for thorough, effective and independent investigation.

- Whenever the police is in receipt of any intelligence or tip-off regarding criminal movements or activities pertaining to the commission of grave criminal offence, it shall be reduced into writing in some form (preferably into case diary) or in some electronic form.

- If pursuant to the tip-off or receipt of any intelligence, as above, encounter takes place and firearm is used by the police party and as a result of that, death occurs, an FIR to that effect shall be registered and the same shall be forwarded to the court under Section 157 of the Code without any delay.

- An independent investigation into the incident/ encounter shall be conducted by the CID or police team of another police station under the supervision of a senior officer (at least a level above the head of the police party engaged in the encounter).

- A Magisterial inquiry under Section 176 of the Code must invariably be held in all cases of death which occur in the course of police firing and a report thereof must be sent to Judicial Magistrate having jurisdiction under Section 190 of the Code.

- The involvement of NHRC is not necessary unless there is serious doubt about independent and impartial investigation. However, the information of the incident without any delay must be sent to NHRC or the State Human Rights Commission, as the case may be.

- In the event of death, the next of kin of the alleged criminal/victim must be informed at the earliest.

- If on the conclusion of investigation the materials/ evidence having come on record show that death had occurred by use of firearm amounting to offence under the IPC, disciplinary action against such officer must be promptly initiated and he be placed under suspension.

- The police officer(s) concerned must surrender his/her weapons for forensic and ballistic analysis, including any other material, as required by the investigating team, subject to the rights under Article 20 of the Constitution.

- Other guidelines cover establishing the victim's identity, preservation of evidence on the spot, preparation of a rough sketch of the scene, recovery of fingerprints, videography of the autopsy.

- If the family of the victim finds that the above procedure has not been followed or there exists a pattern of abuse or lack of independent investigation or impartiality by any of the functionaries as above mentioned, it may make a complaint to the Sessions Judge having territorial jurisdiction over the place of incident. Upon such complaint being made, the concerned Sessions Judge shall look into the merits of the complaint and address the grievances raised therein.

Context

- Encounters in U.P. were not fake says Yogi

6. Swachh Survekshan 2019

Swachh Survekshan 2019 is the world's largest cleanliness survey conducted to rank cities on various sanitation and cleanliness parameters covering 4237 cities.

- Minister of Housing and Urban Affairs (MoHUA) conducted the survey.

- It is a completely digitized and paperless survey.

- The objective of the Swachh Survekshan survey is to encourage citizen participation, increase city capacities for sustainable ODF and sanitation measures and to create awareness amongst all sections of society about the importance of collective action to contribute in India.

Methodology for City Ranking

- Part-1: Service Level Progress: Verification of data submitted by the Urban Local Bodies on the online MIS portal of MoHUA

- Part –2: Certification: Star Rating of Garbage Free Cities and Open Defecation Free Protocols

- Part-3: Direct Observation: On-field independent observation and Collection of data

- Part-4: Citizen Feedback: collected from Citizens directly (face to face), through Outbound Calls, 1969, Swachhata App/Swachh Manch and through Swachh Survekshan-2019 portal.

Swachh Manch web portal

- It is a web-based platform which aims to bring together every stakeholder contributing to the Swachh Bharat Mission under a common platform.

- It allows stakeholders to create/invite/participate in volunteering opportunities around neighborhoods.

7. The Official Secrets Act

Introduction

- Secrets are an essential tool in the hands of a government to protect national security and national interests. Without secrets, there will be anarchy and confusion. National security can be endangered and national interests can be severely damaged. That is why all governments -- whether democratic or authoritarian -- have their laws relating to official secrets.

- Transparency and accountability are essential tools at the disposal of public opinion in order to ensure that the requirements of secrecy are not over-stated and over-used in order to mislead the people, which prevents them from exercising their role as citizens with the right to hold their political leaders and public servants accountable for their sins of commission and omission.

Context

- The central government has informed the Supreme Court that documents linked to the Rafale fighter jet deal were stolen from the defence ministry and that newspapers that published these files may have violated the Official Secrets Act.

- The government stated that those who put documents on Rafale deal in public domain were guilty under Official Secrets Act and contempt of court.

History

- The Official Secrets Act, has its roots in the British colonial era.
- The Indian Official Secrets Act (Act XIV) of 1889, brought in at a time when a large number of powerful newspapers had emerged in several languages across India.
    * Fearless editors opposed the Raj's policies on a daily basis, building political consciousness among the people, and facing police crackdowns and prison terms to uphold their mission and convictions.
    * One of the main purposes of the Act was to muzzle the voice of nationalist publications.
- The Indian Official Secrets Act, 1904 was an amended act of this earlier law and was enacted during the time of Lord Curzon, Viceroy of India.
- Official Secret Act 1923

How are official documents classified?

Depending on the level of sensitivity of the information and the implications of its disclosure for national security — which could be to cause "exceptionally grave damage" to simply "damage" — they are (i) Top Secret, (ii) Secret, (iii) Confidential and (iv) Restricted.

The secret information can be any official code, password, sketch, plan, model, article, note, document or information.

- "Top Secret" is for information whose unauthorised disclosure could be expected to cause "exceptionally grave damage" to national security or national Interest. This category is reserved for the nation's closest secrets.
- "Secret" is for information whose disclosure may cause "serious damage" to national security or national interest, or serious embarrassment to the government. It is used for "highly important matters"; is the highest classification normally used.
- "Confidential" is for information that might cause "damage" to national security, be prejudicial to national interest, might embarrass the government.
- "Restricted" is applied to information meant only for official use, which is not to be published or communicated to any person except for official purposes.
- Documents that do not require security classification are regarded as "Unclassified".

They are decided in accordance with Departmental Security Instructions issued by the Ministry of Home Affairs.

The Act's Ambit

- The secrecy law broadly deals with two aspects —
    * spying or espionage, which is dealt with in Section 3 of the Act,
    * Disclosure of other secret information of the government, which is dealt with in Section 5.

- Section 3 of the Act lists down the penalties for spying where it is stated that if "(1) If any person for any purpose prejudicial to the safety or interests of the State"….. "obtains collects, records or publishes or communicates to any other person any secret official code" …… "shall be punishable by imprisonment up to fourteen years and in other case to three years."
- Under Section 5, both the person communicating the information, and the person receiving the information, can be punished by the prosecuting agency.
- The law, applicable to government servants and citizens, provides the framework for dealing with espionage, sedition, and other potential threats to the integrity of the nation.

Concerns

- The OSA does not define "secret" or "official secrets". Public servants could deny any information terming it a "secret" when asked under the RTI Act.
- This violates the right to freedom of Press as espoused under article 19 of Indian constitution.
- This breeds favoritism, nepotism and corruption violating norms of Transparency and accountability
- The value of Public money will be lost due to unaccountable selection

OSA and RTI

- Section 8(2) of the RTI Act says, "Notwithstanding anything in the Official Secrets Act, 1923, nor any of the exemptions permissible in accordance with subsection 8(1) of RTI Act, a public authority may allow access to information, if public interest in disclosure outweighs the harm to the protected interests."
- Section 22 of the RTI Act declared RTI to have an "overriding effect" over OSA.
    * Section 22 of the RTI Act was a conscious choice of the Parliament. It was introduced to safeguard the citizens' fundamental right to information from complex interpretations of other laws and rules adopted by public authorities to deny information.
    * In other words, where there is any inconsistency in a law as regards to furnishing of information, such law shall be superseded by the RTI Act.
- Section 24, which mandates even security and intelligence organisations to disclose information on corruption and human rights violations.
- The RTI Act, 2005, clearly states that in case of a clash with Official Secrets Act, public interest will prevail.

OSA and Whistleblowing

- Certain categories of leaking of information regarding wrong-doing by the government come under the definition of whistle-blowing.

- A whistle-blower is entitled to the protection of the law if he can prove that he had drawn the attention of higher authorities to the wrong-doing and that he was compelled to go public because the higher authorities had ignored his wake-up calls.

- If he goes directly public without first alerting his higher authorities, he is not entitled to protection.

Recommendations

- In a limited examination of this section, the Law Commission observed in a 1971 report that its wording was quite wide. However, it left it to the government to decide against prosecution, if the information leak did not materially affect the state's interest.

- The Second Administrative Reforms Commission (SARC) Report, 2006, suggested the Act should be substituted by a chapter in the National Security Act that incorporates the necessary provisions. The reason: it had become a contentious issue after the implementation of the Right to Information Act.

- Justice Goswami Commission had asked for replealing the Official Secrets Act, 1923

Examples of use from the past

- The most recent conviction under the Act came in 2018, when a Delhi court held former diplomat Madhuri Gupta, who had served at the Indian High Commission in Islamabad, guilty under the OSA. She was sentenced to three years in jail for passing on sensitive information to Pakistan's ISI.

- In another high-profile case, then Kashmir Times journalist Iftikhar Gilani was arrested in June 2002 and charged under the OSA for allegedly possessing secret documents relating to the deployment of troops in the Valley. The state later withdrew the case.

Why OSA is required?

- With lack of such laws information leak gets more Prominent in the name of freedom of Press and security of our country could be at stake

  * Ex: Abhinandan case, recording operations of 26/11

- The penal provisions can act as a deterrent which prevents officials from taking up such adventure in lure of money and other benefits

Examples from the world

- Several countries including the United Kingdom, Malaysia, Singapore, and New Zealand continue to use the legislation to protect state secrets.

- In 2001, Canada replaced its OSA with a Security of Information Act.

- The "official secrets" come under the Espionage Act in the U.S.

Way forward

- We need to distinguish between an act that helps the enemy or affects national security, and one that advances legitimate public interest.

- In times when information freedom is seen as salutary for democracy, laws such as the OSA should yield to the moral imperative behind the Right to Information Act but National security should never be compromised.

8. Torture in Police Stations

Definition

- According to Article 1 of Convention against Torture and Other Cruel, Inhuman or Degrading Treatment or Punishment the term "torture" means any act by which severe pain or suffering, whether physical or mental, is intentionally inflicted on a person for such purposes as obtaining from him or a third person information or a confession, punishing him for an act he or a third person has committed or is suspected of having committed, or intimidating or coercing him or a third person, or for any reason based on discrimination of any kind, when such pain or suffering is inflicted by or at the instigation of or with the consent or acquiescence of a public official or other person acting in an official capacity. It does not include pain or suffering arising only from, inherent in or incidental to lawful sanctions.

Stats

- That torture is 'endemic' across police stations in India is well known. Official statistics show that in 2018 there were 144 deaths in police custody.

- About 40% of complaints received every year by the NHRC are against the police — mainly for custodial violence.

SC on torture

The Supreme Court of India's judgment in the case of Munshi Singh Gautam and others vs the State of Madhya Pradesh 2005 perhaps summarizes the best how Courts have expressed concern about violence in custody over the years:

- The dehumanising torture, assault and death in custody which have assumed alarming proportions raise serious questions about the credibility of the rule of law and administration of the criminal justice system

- Supreme Court judgment indicates that despite formulation of different guidelines and stress of various judgments that protection from torture is a fundamental right enshrined under Article 21 (Right of Life) of the Indian constitution - State and its forces including police have remained adamant to continuously inflict torture on persons in custody.

Concerns

- Top police officials tolerate it, turn a blind eye to it, citing it as a 'practical tool', or go easy on the perpetrators.

- Those in the lower judiciary, which is the first point of check against custodial violence, are frequently not vigilant in checking if arrested persons are secure in custody, have a lawyer assigned, or have the means to speak out.

- Often, pliant doctors further weaken protections to those in custody by willingly minimising or not disclosing the nature of the harm or injuries they have sustained.

- Oversight bodies like police complaints authorities and human rights commissions are comfortable with the slow pace of accountability from state actors and do no doggedly pursue outcomes.

- One of the reasons that the Government of India (GOI) is ignorant about torture is because there has been no consistent documentation of torture-related complaints. The National Crime Records Bureau (NCRB) does not document cases of custodial torture

- The use of excessive force including torture is also specifically used to target marginalised communities and control people participating in movements or propagating ideologies which the state perceives as opposed to its stature.

- South Asia is among the last regions where the political executive must grant permission before public servants can be prosecuted for acts done in the course of their work.

  * Courts have repeatedly said that torture is no part of policing and so there is no question of waiting for permission for prosecution.

  * The brazenness is strengthened when legal precedents towards torture prevention are not paid heed to. Yet, the executive is still asked, decisions are delayed, and trials cannot proceed.

- According to judicial precedent, recovery of evidence made as a result of torture cannot be used in court, but without proactive lawyers and magistrates, these important details are overlooked in the early stages of the legal process. For victims of torture, this means a harder fight in courts.

Torture by masquerading officers

- Besides being illegal and immoral, torture is not even a useful tool to stop crime.

- Eliciting unreliable confessions — the bedrock of the use of torture — destroys the process of deciding through evidence-based means whether the accused is the real perpetrator or not.

- Moreover, whenever it goes unpunished, torture actually supports more crime by creating a class of criminals within law enforcement.

- It creates a cohort of torturers concealed as officers of the law while they destroy it.

Measures taken to restrain the use of torture

- The Kerala Police Act puts the onus on all police officers to report any physical torture they know of.

- Prisons in Telangana refuse to admit people brought into judicial custody if they appear injured; such persons are sent back to hospitals, forcing their injuries to be properly recorded.

Steps initiated in the past

- In 2008, a Prevention of Torture Bill was brought in Parliament, but due to its weak provisions it was sent to a select committee. The select committee draft was presented in the upper house in 2010, but it remained stuck

- The Law Commission of India submitted its 273rd report recommending government to ratify the UNCAT and also proposed the Prevention of Torture Bill 2017.

What needs to be done?

Some of above mentioned isolated innovations are not enough to stop this horror that has embedded itself in the subculture of policing.

- India signed the UN Convention against Torture or Other Cruel, Inhuman, or Degrading Treatment or Punishment (UNCAT) in 1997.

  * However, ratifying (which is the most crucial aspect of the commitment and implies taking legal steps to make Indian laws correspond to the UN convention commitments) is yet to be done.

  * This is in sharp contrast with Bangladesh, which passed a strong law in 2013.

  * Until we have such a law, Indians must accept that the active tolerance of torture puts punishment before the crime and judgment in the hands of the wrong agency.

  * This violates the rule of law in every way. India needs to revisit this.

- Things will remain unchanged until and unless we make amendments in Section 114 (B) of the Indian Evidence Act, which will ensure that if a person in police custody sustains injuries, it will be presumed that those injuries have been inflicted by the police and the burden of proof shall lie on the authority concerned to explain such injury.

- A comprehensive solution would be to ensure that disincentives are put in place and that there is proper accountability. But there is a lack of political will.

GEOGRAPHY

1. Indravati River

- Indravati River river is a stream of the river Godavari.
- The river originates in the kalahandi region of Odisha, flows westward and then forms a fall at Chitrakoote, enters Telangana and finally flows into the Godavari River
- The river Indravati is also known as the oxygen of the Bastar district of state of Chhattisgarh.
- Chitrakote Falls is on the Indravati River, Because of its width and wide spread during the monsoon season, it is often called the Niagara Falls of India.

2. Liancourt Rocks, Dokdo Islands or Takeshima Islands

- Dokdo—meaning 'Solitary Island' in Korean
- They are a group of small islets in the Sea of Japan
- While South Korea controls the islets, its sovereignty over them is contested by Japan.
- According to South Korea, Dokdo was recognized by Japan as Korean territory in 1696 following an altercation between Japanese and Korean fishermen. But, in 1905, despite allegedly being under formal jurisdiction of Korea's Uldo county, the islands were annexed by Japan ahead of its occupation of the peninsula, which lasted for 35 years up until 1945.

3. Miyako Strait

- It is also known as the Kerama Gap
- It is a waterway which lies between Miyako Island and Okinawa Island
- The Miyako Strait is of global geopolitical significance, as it is one of the few international waterways for China's People's Liberation Army Navy to access the Pacific Ocean from the East China Sea

4. Mount Sodom Salt Cave

Context

- Israel unveils world's longest salt cave

Details

- The cave is called Malham.
- The cave stretching over 10km (6.25 miles), runs through Mount Sodom, Israel's largest mountain, and spills out to the southwest corner of the adjacent Dead Sea.
- Earlier researchers mapped over 6km of the Cave of the Three Nudes in southern Iran's Qeshm Island, granting it the widely recognized status of the world's longest salt cave.
- Pale salt stalactites hang from the ceilings and some of the walls sparkle with salt crystals. Drops of salty water are visible at the tips of some of the stalactites.
- It was discovered near the desert site where, according to the Bible, Lot's wife was turned into a pillar of salt.

5. **Solar tsunami can trigger the sunspot cycle**

    Some Basic Concepts:

    • Like the Earth, the Sun has got a magnetic field. In fact, it is possible to imagine that the Sun is a big magnet, with a north pole and a south pole. However, this is a very simplified picture.

    • If we look at the Sun more closely using satellites or telescopes, we find that the magnetic field is much more complicated.

    • The fact that the Sun has a magnetic field has only been known for about 100 years. This was discovered in 1908, by the American astronomer George Ellery Hale (1868-1938). He managed to show that sunspots are regions on the solar surface which have a very strong magnetic field. This was the first evidence of the solar magnetic field.

    • Sunspots are the most prominent magnetic feature on the solar surface (sometimes they can be seen by the naked eye). The number of sunspots visible on the solar surface changes fairly regularly in time.

    • The number of sunspots increases and decreases over a period of 11 years. This is called the solar cycle. Moreover, the position of sunspots also changes in time. In 11 years, i.e. one solar cycle, sunspots move from high latitudes to the equator.

    • When scientists plot the position of the sunspots versus time, they obtain what are known as butterfly diagrams.

    • This behaviour of the sunspots provide scientists with important clues on how the magnetic field behaves in space and in time.

    Science in the news:

    • It is believed that the "solar dynamo" — a naturally occurring generator which produces electric and magnetic fields in the sun — is linked to the production of sunspots.

    • What kick-starts the 11-year sunspot cycle is not known. Now, a group of solar physicists suggests that a "solar tsunami" is at work that triggers the new sunspot cycle, after the old one ends.

    • The extreme temperature and pressure conditions that prevail some 20,000 km below the sun's surface cause its material to form a plasma, consisting primarily of hydrogen and helium in a highly ionised state.

    • The plasma is confined with huge magnetic fields inside the sun.

    • Scientists point out that, "The [sun's] toroidal magnetic field, from which sunspots get generated, wraps around the sun in the east-west direction."

    Celestial rubber bands:

    • These magnetic fields behave like rubber bands on a polished sphere.

    • They tend to slip towards the poles.

    • Holding these fields in their place requires that there is extra mass (plasma mass) pushing at the bands from higher latitudes. Thus, a magnetic dam is formed which is storing a big mass of plasma. At the end of a solar cycle, this magnetic dam can break, releasing huge amounts of plasma cascading like a tsunami towards the poles.

    • These tsunami waves travel at high speeds of about 1,000 km per hour carrying excess plasma to the mid-latitudes. There they give rise to magnetic flux eruptions. These are seen as the bright patches that signal the start of the next cycle of sunspots. The tsunami waves can traverse the required distance in a few weeks, unlike in earlier models.

    • Further, it is important to note that the solar cycle and sunspot activity are intimately connected with space weather.

6. **Volcanic Explosivity Index (VEI)**

    • It is a relative measure of the explosiveness of volcanic eruptions.

    • Volume of products, eruption cloud height, and qualitative observations (using terms ranging from "gentle" to "mega-colossal") are used to determine the explosivity value.

    • The primary eruption characteristic used to determine the volcanic explosivity index is the volume of pyroclastic material ejected by the volcano.

        * Pyroclastic material includes volcanic ash, tephra (rock fragments and particles ejected by a volcanic eruption), pyroclastic flows, and other types of ejecta.

        * The height of the eruption column and the duration of the eruption are also considered in assigning a VEI level to an eruption.

    • It has a scale of 0 to 8

        * A value of 0 is given for non-explosive eruptions

        * A magnitude of 8 is for largest volcanoes in history.

        * The scale is logarithmic, with each interval on the scale representing a tenfold increase
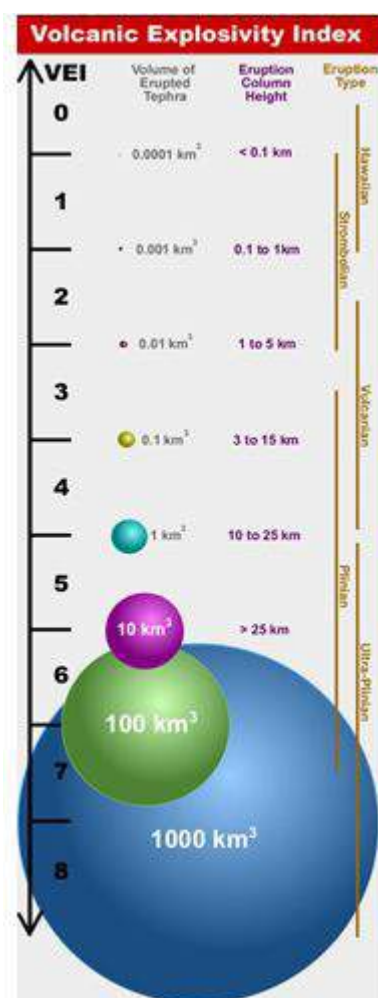
Context

- Mount Tambora is on the island of Sumbawa in Indonesia
- The 1815 eruption of Mount Tambora was one of the most powerful in recorded history, with a Volcanic Explosivity Index (VEI) of 7.
- It is known VEI-7 event

HISTORY

1. **Dictionary of Martyrs of India's Freedom Struggle (1857-1947)**

   Context:

   - The Prime Minister, released the Dictionary of Martyrs of India's Freedom Struggle, at New Delhi

   Background

   - The project for compilation of "Dictionary of Martyrs" of India's Freedom Struggle was commissioned by the Ministry of Culture, to the Indian Council of Historical Research (ICHR) to commemorate the 150th anniversary of uprising of 1857.

   Who are martyrs?

   - In this dictionary a martyr has been defined as a person who died or who was killed in action or in detention, or was awarded capital punishment while participating in the national movement for emancipation of India.

   Who are all included in dictionary?

   - It includes the martyrs of 1857 Uprising, Jallianwala Bagh Massacre (1919), Non-Cooperation Movement (1920-22), Civil Disobedience Movement (1930-34), Quit India Movement (1942-44), Revolutionary Movements (1915-34), Kissan Movements, Tribal Movements, Agitation for Responsible Government in the Princely States (Prajamandal), Indian National Army (INA, 1943-45), Royal Indian Navy Upsurge (RIN, 1946), etc. Information of about 13,500 martyrs has been recorded in five volumes.

2. **Revolutionary ideas that live on**

   Larger Background:

   - On 23rd March, 1931, Bhagat Singh, Raj Guru and Sukhdev were hanged to death.
   - They were given the death sentence in the Lahore conspiracy case.
   - The British Governor-General promulgated an ordinance to establish a special tribunal to try the Lahore conspiracy case, while denying the accused the right to appeal. "By all accounts, it was farcical Trial".
   - Lala Lajpat Rai was brutally beaten up by the Superintendent of Police, J.S. Scott, while leading a demonstration against the Simon Commission. He died of fatal injuries on November 17, 1928.
   - Enraged by this brutality, Bhagat Singh, Rajguru, Sukhdev and Chandra Shekhar Azad decided to avenge Lala Lajpat Rai's death by killing Scott.
   - In the event, it was another police officer, Saunders, who was shot dead by them in a case of mistaken identity.

- The British were left clueless about this killing and, in all probability, Bhagat Singh would never have been arrested and executed if he had not decided to throw a bomb in the Central Legislative Assembly on 8th April, 1929, to protest against two draconian Bills.

- Ironically, it was a poster proclaiming why the British police officer was killed, hand-written by Bhagat Singh, which enabled the British to pin Saunders' killing on Bhagat Singh and his comrades.

- History tells us that the three young men showed neither remorse nor fear while they were being taken to the gallows at Lahore Central Jail, but happily embraced death, shouting 'Inquilab Zindabad'.

   About Bhagat Singh

- Bhagat Singh was born on 27 September 1907 at the village of Banga, Lyallpur district (now in Pakistan) the second son of Kishan Singh and Vidya Vati.

- Bhagat Singh was imbued from childhood with the family's spirit of patriotism. At the time of his birth, his father was in jail for his connection with the Canal Colonization Bill agitation, in which his brother, Ajit Singh (Bhagat Singh's uncle), took a leading part.

- Through his father, who was a sympathizer and supporter of the Ghadr campaign of 1914-15, Bhagat Singh became an admirer of the leaders of the movement. The execution of Kartar Singh Sarabha made a deep impression on the mind of the young man who vowed to dedicate his life to the country.

- Having passed the fifth class from his village school, Bhagat Singh joined Dayanand Anglo-Vedic School in Lahore.

- In response to the call of Mahatma Gandhi and other nationalist leaders, to boycott government aided institutions, he left his school and enrolled in the National College at Lahore.

- He was successful in passing a special examination preparatory to entering college.

- He was reading for his B.A. examination when his parents planned to have him married.

- He vehemently rejected the suggestion and said that, if his marriage was to take place in Slave-India, my bride shall be only death. Bhagat Singh left home and went to Kanpur where he took up a job in the Pratap Press.

- When Bhagat Singh was assured that he would not be compelled to marry and violate his vows sworn to his motherland, he returned to his home in Lahore.

- In March 1926 was formed the Naujawan Bharat Sabha.

- Bhagat Singh, one of the principal organizers became its secretary.

- After Bhagat Singh was hanged to death, his body was secretly cremated at Husainivala by police and the remains thrown into the River Sutlej. The next day, however, his comrades collected the bodily remains from the cremation site and a procession was taken out in Lahore.

- In 1950, after Independence, the land where Bhagat Singh and his companions were cremated was procured from Pakistan and a memorial built.

- In March 1961, a Shahidi Mela was held there. Every year, on 23 March, the martyr's memory is similarly honoured.

Why in the news?

- Bhagat Singh went to the gallows, along with two of his comrades, Sukhdev and Rajguru, on March 23, 1931.

Editorial Analysis:

- Bhagat Singh stands out in bold relief as someone who, at a young age, defined nation and nationalism for us.

- He had an alternative framework of governance, which is strongly reflected in the corpus of writings that he has left behind.

- Unfortunately, we hardly care to revisit this serious intellectual inheritance and only venerate him as a martyr. This veneration is laudable but incomplete.

Incisive commentary:

- Singh was barely 17 when he published his first article, in 1924, in Matwala, a Hindi magazine from Calcutta.

- The subject was 'Universal Brotherhood', which was not a very easy issue to write on at such a young age. He imagined a world where "all of us being one and none is the other. It will really be a comforting time when the world will have no strangers."

- Experts opine that all those who are busy "othering" and creating strangers out of their own fellow citizens need to grapple with Bhagat Singh's views, instead of merely glorifying him as a martyr.

- He emphatically exclaimed that "as long as words like black and white, civilized and uncivilized, ruler and the ruled, rich and poor, touchable and untouchable, etc., are in vogue there was no scope for universal brotherhood".

- He went on to say, "We will have to campaign for equality and equity. Will have to punish those who oppose the creation of such a world." Among the heroes of our freedom struggle, he was perhaps the only one who had this vision at such a young age.

- His strongest critique was of untouchability and communalism, which continue to torment us as a nation.

- He was fiercely frank and bold enough to critically comment on the politics of senior leaders such as Lala Lajpat Rai and express his differences.

- He was also conscious of the international revolutionary struggles and ideologies, which is evident in a series of articles he wrote on 'Anarchism'.

- In 1928, he wrote, "Our country is in a really bad shape; here the strangest questions are asked but the foremost among them concerns the untouchables… For instance, would contact with an untouchable mean defilement of an upper caste? Would the Gods in the temples not get angry by the entry of untouchables there? Would the drinking water of a well not get polluted if untouchables drew their water from the same well? That these questions are being asked in the twentieth century, is a matter which makes us hang our heads in shame."

- He was aghast that we claimed to be a spiritual country, yet discriminated against fellow human beings while the materialist West had done away with such inhuman obscenities long ago.

Inclusiveness came first:

- It is important to note that the decade of the 1920s saw a rise in communal politics, from both Hindu and Muslim groups.

- However, Bhagat Singh steadfastly remained committed to the idea of a plural and inclusive India.

- He founded the Naujawan Bharat Sabha in Lahore in 1926, whose manifesto said, "Religious superstitions and bigotry are a great hindrance in our progress. They have proved an obstacle in our way and we must do away with them. 'The thing that cannot bear free thought must perish.'"

- In 1928, Bhagat Singh was acutely conscious of the divisiveness of mixing religion with politics and he wrote, "If religion is separated from politics, then all of us can jointly initiate political activities, even though in matters of religion we might have many differences with each other. We feel that the true well-wishers of India would follow these principles and save India from the suicidal path it is on at present." None cared to listen to this voice of sanity then. Even now, many of us continue to peddle religion to promote political prospects.

- Bhagat Singh expressed his disenchantment with the politics of Lala Lajpat Rai, whom he and other youth otherwise venerated.

- He was not even remotely close to the political stature of Lalaji yet he had the courage and the conviction to publicly disagree with him. Not many can do such a thing now.

- Bhagat Singh referred to Lalaji's growing proximity to the Hindu Mahasabha and other communal forces during the 1920s, and the older reader reacted to this in his speeches when some youth joined Bhagat Singh in expressing their concern.

- Singh was aware of international revolutionary struggles as well.

- His three-part article on anarchism (1928), appeared before he authored his masterly essay, 'Why I am an Atheist'.

- Thus we can see here the evolution of his ideas on politics, society, religion and even faith in god. While writing on anarchism, Bhagat Singh observed: "Our retrogressive thinking is destroying us. We keep ourselves entangled in futile discussions about God and heaven, and remain busy in talking about the soul and God. We are quick to dub Europe as capitalist and don't think about their great ideas or pay any attention to them. We love divinity and remain aloof from the world."

- This is what an anarchist stood for, Singh reaffirmed; he was not a blood-thirsty young man who believed in the bomb and the pistol, as the colonial government labelled all revolutionaries.

Concluding Remarks:

- Today, we need to remember his revolutionary ideas.

- Mere valorisation of his nationalism and ultimate sacrifice is true but sadly incomplete. In these rancorous times, his intellectual bequest should be a beacon to build a new India.

3. **Wagon tragedy**

- The 1921 Wagon Tragedy took place during the Mappila rebellion in Malabar against British rulers and Hindu landlords.

- This horrific incident came to be called the Jalian Wallabagh of the South.

- In 1972, the Kerala Government called it the Wagon Tragedy.

EDUCATION

1. **Young Scientist Programme (Yuvika)**

   Context

   - Indian Space Research Organisation has launched a special programme for School Children called "Young Scientist Programme" "YUva VIgyani KAryakram" from this year, in tune with the Government's vision "Jai Vigyan, Jai Anusandhan".

   Details

   - The Program is primarily aimed at imparting basic knowledge on Space Technology, Space Science and Space Applications to the younger ones with the intent of arousing their interest in the emerging areas of Space activities.

   - The program is thus aimed at creating awareness amongst the youngsters who are the future building blocks of our Nation. ISRO has chalked out this programme to "Catch them young".

   Criteria

   - The residential training programme will be of around two weeks duration during summer holidays and it is proposed to select 3 students each from each State/ Union Territory to participate in this programme covering state, CBSE, and ICSE syllabus.

   - Those who have just finished 9th standard (in the academic year 2018-19) and waiting to join 10th standard (or those who have started 10th Std just now) will be eligible for the programme.

   - The selection is based on the 8th Standard academic performance and extracurricular activities.

   - Students belonging to the rural area have been given special weightage in the selection criteria. In case there is tie between the selected candidates, the younger candidates will be given priority.

MISCELLANEOUS

1. **Abel Prize**

   - It is a Norwegian prize awarded annually by the King of Norway to one or more outstanding mathematicians

     * The main objective of the Abel Prize is to recognize pioneering scientific achievements in mathematics. The Prize shall also help boost the status of the field of mathematics in society and stimulate children and youth to become interested in mathematics.

   - The prize is named after the 19th century Norwegian mathematician Niels Henrik Abel.

   - The prize comes with a cheque for $7,03,000.

   - It was established by the Norwegian government in 2002 on the occasion of the 200th anniversary of Niels Henrik Abel's birth.

   Context

   - The Abel Prize in mathematics was awarded to Karen Uhlenbeck of the U.S. for her work on partial differential equations, the first woman to win the award

2. **'Centre for Disability Sports'**

   Context

   - A 'Centre for Disability Sports' will be set up at Gwalior in Madhya Pradesh. It will be registered under the Societies Registration Act, 1860, which is to function under the name of Centre for Disability Sports, Gwalior.

   Significance:

   - Improved sports infrastructure created by this Centre will ensure effective participation of Persons with Disabilities (PwDs) in sports activities and also enable them to compete at national and international levels.

   - Setting up of the Centre will develop a sense of belonging in Divyangjan to facilitate their integration in society.

   The sports identified for training in the Centre are as under:

   - Integrated sports (Indoor) like Badminton, Basketball, Table Tennis, Volleyball, Judo, Taekwondo, Fencing and Rugby;

   - Adapted sports (Indoor) like Boccia, Goalball, Football 5 a side, Para Dance Sport and Para Power Lifting;

   - Integrated sports (Outdoor) like Athletics, Archery, Football 7 a side and Tennis; and

   - Integrated sports (Indoor & Outdoor) – Swimming.

3. **Construction Technology India (CTI)**

   Context

   - Prime Minister inaugurated the Construction Technology India-2019 Expo-cum-Conference in Delhi.

   Details:

   - The conference identifies proven, innovative and globally established technologies for use in the Indian context.

   - Technology providers, researchers, start-ups, developers, academia, public sector agencies and other domain experts participated in the event.

   - Six cities have been identified to locate Lighthouse projects that will serve as "Live Laboratories". These are 1. Rajkot (Gujarat) 2. Ranchi (Jharkhand) 3. Indore (Madhya Pradesh) 4. Chennai (Tamil Nadu) 5. Agartala (Tripura) & 6. Lucknow (Uttar Pradesh).

   - The ground-breaking of Lighthouse projects is targeted for June, 2019 and ASHA-India (Affordable Sustainable Housing Accelerator) will be working closely with the potential technology entities providing mentorship, training workshops and acceleration guidance to make them market-ready and scalable.

   CTI:

   - The Construction Technology India (CTI) will be a biennial event.

   - NAREDCO and CREDAI will be taking the lead with the support of Ministry of Housing and Urban Affairs in hosting this event.

   - This event will become a regular feature in the international event calendar for construction sector where the leading entities in this space across the world would be making their presence here.

4. **Karnataka has most number of stolen artefacts**

   Context

   - In a written answer to a Lok Sabha question Ministry of Culture has revealed Karnataka tops the list in the country that has seen 30 idols or artefacts being stolen from Archaeology Survey of India (ASI) sites

   Details

   - In a span of three years, a stone Nandi and a stone Ganesha were stolen from the Ramalingaswara temple complex at Avani in Kolar district.

- A stone Shivalinga was stolen from a Shiva temple in Thimalapura in Ballari district; while, the eight-armed goddess Mahishamardini was stolen from the Panchalingeswara Temple in Mandya is yet to be recovered.
- In Hassan district, three sculptures of Hoysala period were stolen.
- A seated Chaturbhuja Ganesha sculpture from Bucheshwara Temple at Koravangala near Hassan was stolen
- Lack of sufficient staff to guard the monuments is said to be one of the reasons for the thefts.

Antiques stolen

Year	From Karnataka	From India
2013	4	9
2014	5*	8
2015	2	7
2016	1	5
2017	0	1
2018	0	0

*Two from the same temple in Hassan

From Hassan **3**
From Kolar and Mysuru **2**
From Shivamogga, Mandya, Ballari, Davangere, Chickballapur **1**
Idols recovered **0**

5. Mercer's index of most liveable cities

Context

- The Austrian capital Vienna has topped Mercer's index of most liveable cities for the 10th year in a row.
- Known by tourists for its imperial past, gilded palaces and classical music, the city of 1.9 million is also nicknamed "red Vienna" for having long been run by the political left, with cheap public services and abundant social housing.

Criteria

- Quality of living is determined by many factors, from access to public transport and traffic congestion levels, to the availability of housing and international schools, to a city's cultural scene
- Mercer says it looks at 39 factors grouped under 10 headings such as "political and social environment" and "recreation".
- The survey identifies those cities with the highest personal safety ranking based upon internal stability, crime, effectiveness of law enforcement and relationships with other countries

Global ranking

- Zurich, Switzerland's biggest city, came in second place for overall quality of living, followed by Auckland, Munich and Vancouver in joint third place.

- The 10 cities at the bottom of the 231-city table were unchanged, with Baghdad ranked last, followed by Bangui in the Central African Republic and Yemen's capital Sanaa.
- Luxembourg City was named as the safest city in the world, followed by Helsinki in Finland and the Swiss cities of Basel, Bern and Zurich.

Indian Ranking

- Chennai, the capital of Tamil Nadu is ranked at 105 in Mercer's Quality Of Living Index and is the number one city from India.
- Bengaluru, the capital of Karnataka is ranked at 149 in Mercer's Quality Of Living Index.
- Mumbai, a densely populated city and a financial centre is ranked at 154 in Mercer's Quality Of Living Index.
- New Delhi, the capital of India is ranked at 162 in Mercer's Quality Of Living Index.

6. World Happiness Index

- The World Happiness Report is a measure of happiness published by the United Nations Sustainable Development Solutions Network.
- The report ranks countries on six key variables that support well-being: income, freedom, trust, healthy life expectancy, social support and generosity.
- It ranks the world's 156 countries on "how happy their citizens perceive themselves to be"
  - * In those surveys, people give scores from 1 to 10 on how much social support they feel they have if something goes wrong, their freedom to make their own life choices, their sense of how corrupt their society is and how generous they are.
- It was first published in 2012.
- The happiness study ranks the countries of the world on the basis of questions from the Gallup World Poll. The results are then correlated with other factors, including GDP and social security.

India's Performance

- Indians are not as happy in 2019 as they were in 2018 and the country figures at 140th place, seven spots down from 2018

Other Countries

- Finland has been ranked as the happiest country in the world for the second year in succession. The Nordic nation is followed by Denmark, Norway, Iceland and The Netherlands.
- Pakistan is ranked 67th, Bangladesh 125th and China is place at 93rd.
- People in war-torn South Sudan are the unhappy with their lives, followed by Central African Republic (155), Afghanistan (154), Tanzania (153) and Rwanda (152).

7. YONO Cash

Context

- The State Bank of India has launched the YONO Cash service for its customers which will allow them to withdraw cash from ATMs without their debit cards.

Details

- It is part of SBI's digital banking platform; You Only Need One (YONO) is the cardless cash withdrawal service

- The initiative will address concern of using debit card at the ATMs for cash withdrawals by eliminating possible risk associated with it.

- Through YONO, the endeavor is to create a digital universe by integrating the entire transactions ecosystem under one platform in the next 2 years

How it works?

- SBI customers can use the YONO app on their smartphones to withdraw cash from SBI ATMs, or YONO Cash Points, without using their debit and credit cards.

- Once a request for withdrawing cash is placed, a 6-digit code will be sent to the user's phone via SMS, which will then have to be entered into a YONO Cash Point.

PRACTICE QUESTIONS

1. **Ancient City of Sabratha has been in news recently. It is in –**

    A. Syria

    B. Iraq

    C. Libya

    D. Jordan

2. **Consider the following statements with reference to Nobel Prize 2018**

    1. The Nobel Physics Prize 2018 has been given for inventing optical lasers.

    2. The optical lasers have paved the way for advanced precision instruments used in corrective eye surgery.

    Which of the above statement(s) is/are correct?

    A. Only 1

    B. Only 2

    C. Both 1 and 2

    D. None of the above

3. **Human Capital Index (HCI) is released by**

    A. World Bank

    B. World Economic Forum

    C. United Nations Development Programme

    D. World Trade Organisation

4. **The government has recently granted Geographical Indication (GI) tag to the Alphonso Mango from-**

    A. Bihar

    B. West Bengal

    C. Maharashtra

    D. Madhya Pradesh

5. **Consider the following statements about millets:**

    1. Rajiv Gandhi Grameen Vidyutikaran Yojana (RGGVY) scheme for village electrification has been subsumed in this scheme

    2. Rural Electrification Corporation is the Nodal Agency for implementation of this scheme

    3. It also provides for separation of agriculture and non-agriculture feeders in the rural areas

    Which one of the following schemes has the features as mentioned above?

    A. Deendayal Upadhyaya Gram Jyoti Yojana (DDUGJY)

    B. Saubhagya

    C. UDAY scheme

    D. UJALA Scheme

6. **Consider the following statements:**

    i. The Constitution of India provides for reservation of women in legislative bodies at state level but not at union level

    2. The percentage of women in the Lok Sabha has increased since independence

    Which of the above statement(s) is/ are correct?

    A. Only 1

    B. Only 2

    C. Both 1 and 2

    D. None of the above

7. **"Safe Cities and Safe Public Spaces" is a global initiative by-**

    A. World Economic Forum

    B. World Bank

    C. European Union

    D. United Nations

8. **Consider the following statements regarding Rashtriya Mahila Kosh (RMK):**

    1. It is a national level organization as an autonomous body under the aegis of the Ministry of Women and Child Development

    2. RMK provides loans to Intermediary Organizations (IMO) which on-lend to Self Help Groups of women

    Which of the above statement(s) is/ are correct?

    A Only 1

    B Only 2

    C Both 1 and 2

    D) None of the above

9. **Consider the following statements regarding Common Services Centers (CSCs)**

    i. They are ICT enabled kiosks with broadband connectivity for delivery of only Central Sector Schemes only.

    2. It is a strategic cornerstone of the National e-Governance Plan (NeGP).

    Which of the above statement(s) is/ are correct?

    A. Only 1

    B. only 2

    C. Both 1 and 2

    D. None of the above

10. **Stree Swabhiman Project aims at-**

    A. Creating special hospitals for women

    B. Creating new special educational institutions for women

    C. Creating a sustainable model for providing adolescent girls and women affordable sanitary d) products in rural areas

    D. Creating Vocational Training Centres for women

11. **Which of the following activities are undertaken by Krishi Vigyan Kendras?**

    1. It is Capacity development of farmers and extension personnel to update their knowledge and skills on modern agricultural technologies

    2. To provide credit facilities to the farmers in collaboration with RRBs

    3. KVK would produce quality technological products (seed, planting material, bio-agents, livestock) and make it available to farmers

    Which of the above statement(s) is/ are correct?

    A. Only 1 and 2

    B. Only 2 and 3

    C. Only 1 and 3

    D. All of the above

12. **Which of the following insurgent groups are demanding for 'Greater Nagalim'?**

    A. National Socialist Council of Nagaland-Khaplang (NSCN-K)

    B. United Liberation Front of Asom

    C. Both a and b

    D. None of the above

13. **Which classical dance form is considered as oldest classical dance heritage of India and regarded as mother of many other Indian classical dance forms?**

    A. Bharatanatyam

    B. Kathakali

    C. Odissi

    D Manipuri

14. **Which scheme was primarily launched for promotion and manufacture of electric vehicles in India?**

    A. FAME scheme

    B. Start Up India

    C. Stand Up India

    D. None of the above

15. **Consider the following statements regarding Domestic Violence Act - 2005:**

    1. The definition of domestic violence includes only the actual abuse against the victim

    2. The act does not cover "live-in" partners and is limited to wives, divorcee or widows

    Which of the above statement(s) is/ are correct?

    A Only 1

    B Only 2

    C Both 1 and 2

    D None of the above

16. **Consider the following statements regarding Pradhan Mantri Matru Vandana Yojana:**

    1. It provides complete compensation for the wage loss in terms of cash incentives

    2. All Pregnant Women and Lactating Mothers including those in regular employment with the Central Government or the State Governments are eligible for the scheme

    3. It is implemented in all the districts of the country in accordance with the provision of the National Food Security Act, 2013.

    Which of the above statement(s) is/ are correct?

    A. Only 1 and 2

    B. Only 2 and 3

    C. Only 3

    D. All of the above

17. **Consider the following statements**

    1. 1India has yet not ratified the Worst Forms of Child Labour Convention (No 182) of the ILO

    2. Conventions of ILO are legally binding international treaties that may be ratified by member states

    Which of the above statement(s) is/ are correct?

    A. Only 1

    B. Only 2

    C. Both 1 and 2

    D. None of the above

18. **Which of the following provisions is/ are available against child labour?**

    1. 1. Article 23 and 24

    2. Article 39

    3. PENCIL portal

    4. National Child Labour Project Scheme

    Select the correct answer using the codes given below:

    A. Only 1, 2 and 3

    B. Only 2 and 4

    C. Only 3 and 4

    D. All of the above

19. **Consider the following statements regarding Rastriya Vayoshri Yojana:**

1. The Nobel Physics Prize 2018 has been given for inventing optical lasers.

2. The optical lasers have paved the way for advanced precision instruments used in corrective eye surgery.

Which of the above statement(s) is/are correct?

   A. Only 1

   B. Only 2

   C. Both 1 and 2

   D. None of the above

20. **Consider the following statements regarding Maintenance & Welfare of Parents and Senior Citizen Act 2007:**

1. It defines the senior citizen as any person being a citizen of India, who has attained the age of 60 years and above.

2. There are no constitutional provisions in India to improve the quality of life of the senior citizens.

Which of the above statement(s) is/ are correct?

   A. Only 1

   B. Only 2

   C. Both 1 and 2

   D. None of the above

21. **Consider the following statements with respect to Kanyashree Prakalpa Scheme**

1. The "Kanyashree Prakalpa" is a targeted conditional cash transfer scheme aimed at retaining girls in schools and other educational institutions.

2. It is a Haryana Govt initiative to reduce female infanticide

3. The United Nations has awarded first place for Public Service for its "Kanyashree" scheme.

Which of the above mentioned statements are correct?

   A. Only 1 and 2

   B. Only 1 and 3

   C. Only 1

   D. All of the above

22. **Krishonnati Yojana does not include which of the following?**

   A. National Mission on Oilseeds and Oil Palm

   B. National Mission for Sustainable Agriculture (NMSA)

   C. National Mission on Agricultural Extension and Technology

   D. National Mission on Silk and sericulture

23. **Consider the following statements about Bhakthi saint Kabir:**

1. Kabir was a weaver and a Bhakthi saint who composed Dohas.

2. Kabir tried to unite the two religions of Hinduism and Islam.

3. The followers of Kabir were referred to as Kabirpanths.

Which of the above statements are correct?

   A. 1 and 3 only

   B. 1 and 2 only

   C. 2 and 3 only

   D. All of the above

24. **Which of the following air pollutants are considered for determining the Air Quality Index?**

1. Ozone

2. Carbon dioxide

3. Sulphur dioxide

4. Nitrogen dioxide

5. Carbon monoxide

6. Particulate Matter

Choose the correct answer:

   A. 1, 2, 3, 4, 5

   B. 1, 3, 4, 5, 6

   C. 2, 3, 4, 5, 6

   D. 1, 2, 3, 5 ,6

25. **Which of the following functions can be performed by the National Commission for Scheduled Tribes?**

1. To enquire into specific complaints with respect to the deprivation of rights and safeguards of the STs

2. Measures to be taken over conferring ownership rights in respect of minor forest produce to the STs living in forest area

3. Measures to be taken to ensure full implementation of the Provisions of Panchayat (Extension to the Scheduled Areas) Act, 1996

Select the correct answer using the codes given below:

   A. Only 1 and 2

   B. Only 2 and 3

   C. Only 1 and 3

   D. All of the above

26. National Ayush Mission aims to

1. Co-locate AYUSH facilities at Primary Health Centres

2. Support cultivation of medicinal plants by adopting Good Agricultural Practices

3. Sustained availability of quality raw- materials for AYUSH Systems of Medicine

Select the correct answer using the code given below.

A. Only 1 and 2

B. Only 2 and 3

C. Only 1 and 3

D. All of the above

27. Which of the following is/are the criteria to define a literate person according to the Census 2011?

1. Anyone receiving formal education or to have attained any minimum educational standard upto class 3.

2. Anyone above the age of five who can read and write with understanding in any language.

Select the correct answer using the code given below.

A. Only 1

B. Only 2

C. Both 1 and 2

D. None of the above

28. Which of the following may help in achieving spirit of One Economic India?

1. Federal Structure

2. Constitutional Provision under Article 302

3. GST

Select the appropriate code

A. Only 1 and 2

B. Only 2 and 3

C. Only 1 and 3

D. All of the above

29. Which of the following age-group is included in Labour Force Participation Rate?

A. 16-58 years

B. 16-64 years

C. 18-58 years

D. 18-60 years

30. Maitreyi Yatra is a student exchange program between

A. Ministry of Human Resource Development and Jammu & Kashmir Government

B. Ministry of Culture and Ministry of Development of North-Eastern region

C. Tamil Nadu government and Government of Sri Lanka

D. Ministry of Culture and Government of Maldives

31. Consider the following statements with reference to Leprosy in India:

1. National Leprosy Eradication Program looks after the case detection and management of leprosy cases

2. India has achieved elimination of leprosy as a public health problem.

Which of the above statement(s) is/ are correct?

A. Only 1

B. Only 2

C. Both 1 and 2

D. None of the above

32. Swachh Survekshan under Swachh Bharat Mission-urban is undertaken by which of the following ministry?

A. Ministry of Drinking water and Sanitation

B. Ministry of Health and Family Welfare

C. Ministry of Housing and Urban Affairs

D. Ministry of Rural Development

33. 1.Which of the following is the correct objective of the 'COMMIT Program' launched by the Union Ministry of Personnel, Public Grievances and Pension?

A. To set a minimum pension to all Government officers working in State Government.

B. To improve public service delivery through capacity building of officials who interact with citizens on day to day basis.

C. To make Government offices more accessible for People with Disabilities.

D. All of the above

34. Which one of the following is an objective of Bhavantar Bhugtan Yojana?

A. To provide the compensation to farmers for agriculture products whenever its price fall below the announced Minimum support price

B. To insure the crop insurance from natural calamities in Madhya Pradesh

C. To facilitate production of organic farming

D. To provide cheap credit facilities to farmers in the form of subsidised loans

35. Which among the following programmes have been exclusively launched for women scientists?

i. KIRAN

2. VAJRA

3. ROSHNI

Select the correct answer using the code given below.

A. Only 1

B. Only 1 and 2

C. Only 2 and 3

D. All of the above

36. Consider the following statements regarding fortification of food 'Jan Shikshan Sansthans (JSSs)'

1. Fortification of milk has been prohibited by the Ministry of Health and family Welfare due to its reactive nature

2. Fortification does not alter the characteristics of the food—the taste, the feel, the look

Which of the above statement(s) is/ are correct?

A. Only 1

B. Only 2

C. Both 1 and 2

D. None of the above

37. The windiest capital in the world is:

A. London

B. Wellington

C. Washington

D. Canberra

38. Cook Strait separates:

A. Java Sea & Indian Ocean

B. Gulf of Mexico and Caribbean Sea

C. Adriatic Sea & Ionian Sea

D. North and South Islands of New Zealand

39. Consider the following about India Energy Modelling Forum (IEMF):

1. This is an initiative of the Ministry of Power.

2. It has been envisaged as a pan-stakeholder platform for debating ideas, scenario-planning & discussing the India's energy future.

Which of the above statements are correct?

A. 1 only

B. 2 only

C. Both

D. None

40. With reference to West Nile Fever, which of the following statements are incorrect?

1. It is a bacterial infection.

2. Mosquitoes become infected when they feed on infected birds.

A. 1 only

B. 2 only

C. Both

D. None

41. Consider the following statements:

1 Biopolymers are polymers produced from natural sources either chemically synthesized from a biological material or entirely biosynthesized by living organisms.

2 Biopolymers are a very promising alternative to synthetic polymers with inherent environmental benefits.

Which among the above statements is/are correct?

A. 1 Only

B. 2 Only

C. Both 1 and 2

D. Neither 1 nor 2

42. Consider the following statements:

1. There are various styles of Chhau dances. Of these Purulia, Seraikella and Mayurbhanj are most popular.

2. The main difference among these dance styles lies in the use of masks. Purulia Chhau is traditionally performed in the open air and on level ground. The performance begins with an invocation to Lord Ganesha.

Which among the above statements is/are incorrect?

A. 1 Only

B. 2 Only

C. Both 1 and 2

D. Neither 1 nor 2

43. Consider the following statements:

1. The United Nations Environment Assembly is the world's highest-level decision-making body on the environment.

2. The Environment Assembly meets biennially to set priorities for global environmental policies and develop international environmental law.

Which among the above statements is/are correct?

A. 1 Only

B. 2 Only

C. Both 1 and 2

D. Neither 1 nor 2

44. Consider the following statements:

1. Sunspots are a common sight on our Sun during the years around solar maximum.

2. Solar maximum or solar max is the period of greatest solar activity in the solar cycle of the Sun, where one solar cycle lasts about 11 years.

Which among the above statements is/are correct?

A. 1 Only

B. 2 Only

C. Both 1 and 2

D. Neither 1 nor 2

45. Consider the following statements:

1. Attappadi Reserve Forest is a protected area located in Tamil Nadu.

2. Attappadi Reserve Forest is an informal buffer zone bordering the Silent Valley National Park.

Which of the statement/s given above is/are correct?

A. 1 only

B. 2 only

C. Both 1 and 2

D. Neither 1 nor 2

46. Consider the following:

1. Indian Ocean – Cyclones

2. Hurricanes – Atlantic

3. Typhoons – Western Pacific and South China Sea

4. Willy-willies – Western Australia

Which of the following is NOT matched correctly?

A. 1 only

B. 2 and 3 only

C. All of the above

D. None of the above

47. Among the following, which is the oldest living animal in the world?

A. Chameleon

B. Gastrotrichs

C. Corals

D. Mayflies

48. From which of the countries, the Constitution of India has adopted fundamental duties?

A. USA

B. Canada

C. Erstwhile USSR

D. UK

49. Mount Soputan recently seen in news is in

A. North Korea

B. Italy

C. Indonesia

D. Brazil

50. Which of the following reports are published by WEF?

1. Energy Transition Index

2. Environment Performance Index (EPI)

3. Global Financial Stability Report

4. World Economic Outlook

Options:

A. 1 and 2 only

B. 3 and 4 only

C. 1, 3 and 4 only

D. 1, 2 and 4 only

51. Gumti Wildlife Sanctuary is in the state of

A. Manipur

B. Tripura

C. Odisha

D. Assam

52. Consider the following about National Board for Wildlife:

1. It was constituted under Environment (Protection) Act, 1986.

2. No alteration of the boundaries of a National Park except on a recommendation of the National Board.

The incorrect statement is:

A. 1 only

B. 2 only

C. Both

D. None

53. Wagon tragedy is associated with

A. Mappila rebellion

B. Naxal Movement

C. Civil disobedience

D. Quit India Movement

54. Consider the following about CoM:

1. The advice tendered by them is binding on the president.

2. There is a provision for a system of legal responsibility of a minister in the Indian constitution.

Which of the above statements are incorrect?

A. 1 only

B. 2 only

C. Both

D. None

55. **Which of the following sectors come under the Champion Services Sectors?**

1. Medical Value Travel

2. Transport and Logistics Services

3. Accounting and Finance Services

4. Audio Visual Services

5. Communication Services

Options:

A. 1, 2 and 3 only

B. 2, 3 and 4 only

C. 3, 4 and 5 only

D. 1, 2, 3, 4 and 5

56. **National Productivity Council is a**

A. Statutory Body

B. Autonomous organization

C. Constitutional Body

D. None of them

57. **Consider the following about Dokdo Islands:**

1. It is a dispute between Japan and Russia.

2. It is present in the Sea of Japan.

Which of the above statements is/are correct?

A. 1 only

B. 2 only

C. Both

D. None

58. **Astana Declaration is related to**

A. Primary Healthcare

B. Drug Trafficking Control

C. Fight against Money Laundering

D. Global commitment to fight climate change

59. **Which of the following statements about Arjuna Tree are correct?**

1. It usually grows along river banks.

2. Soil in areas under the canopy of the tree had higher organic carbon and moisture content.

3. Its leaves are fed on by the Antheraea paphia moth which produces the tassar silk.

Options:

A. 1 and 2 only

B. 2 and 3 only

C. 1 and 3 only

D. 1, 2 and 3

60. **Fuego volcano is in which country?**

A. Japan

B. Indonesia

C. Philippines

D. Guatemala

61. **Consider the following about POSHAN Abhiyaan:**

1. It targets Children and women only

2. It will address Malnutrition through Convergence, Use of Technology

Which of the above statements are incorrect?

A. 1 only

B. 2 only

C. Both

D. None

62. **Charlevoix Blueprint is associated with**

A. North Korea and South Korea Peace Plan

B. Climate Adaptation Plan

C. Free Trade Agreement in South America

D. Global IP Agreement

63. **Consider the following statements:**

1. Start-Up Village Entrepreneurship Programme (SVEP) is a Sub component of National Rural Livelihood Mission.

2. Any Rural poor who is willing to be entrepreneurial and self-reliant is eligible to be part of this programme.

Which of the statement/s is/are correct?

A. 1 only

B. 2 only

C. Both 1 and 2

D. Neither 1 nor 2

64. **Consider the following statements:**

1. Village Adoption Programme is a programme under the Ministry of Rural Development.

2. It is a flagship programme of the National Institute of Food Technology Entrepreneurship and Management.

Which of the statement/s is/are correct?

A. 1 only

B. 2 only

C. Both 1 and 2

D. Neither 1 nor 2

65. Consider the following statements:

1. Samagra Shiksha Scheme subsumes the three Schemes of Sarva Shiksha Abhiyan (SSA), Rashtriya Madhyamik Shiksha Abhiyan (RMSA) and Teacher Education (TE).

2. The Scheme will be implemented as a Central Sector Scheme.

Which of the statement/s 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 Pilibhit Tiger Reserve:

1. It is located in Uttarakhand.

2. The Northern edge of the reserve lies along the India-Nepal border.

Which of the statement/s is/are correct?

A. 1 only

B. 2 only

C. Both 1 and 2

D. Neither 1 nor 2

67. Consider the following about Fiat Money:

1. Currency notes and coins are called fiat money

2. They have intrinsic value like Gold

Which of the above statements is/are correct?

A. 1 only

B. 2 only

C. Both

D. None

68. Galapagos Islands recently seen in the news is in which country?

A. Chile

B. Ecuador

C. Brazil

D. Argentina

69. J curve in economics is related to

A. Index is a type of cost-of-living index that uses an expenditure function such as one used in assessing expected compensating variation

B. Show the relationship between tax rates and the amount of tax revenue collected by governments

C. The inverse relationship between unemployment rate and inflation

D. Refers to the trend of a country's trade balance following a devaluation

70. Tax buoyancy is defined as

A. Percentage change in tax revenue in response to change in tax rate and extension of coverage

B. Refers to the % change in the tax revenue with the growth of national income i.e. growth based increase in tax collection

C. The entity who bears the tax burden

D. None of the above

71. Consider the following statements:

1 The World Food Programme (WFP) is governed by a 36-member Executive Board. It works closely with its two Rome-based sister organizations, the Food and Agriculture Organization of the United Nations and the International Fund for Agricultural Development.

2 WFP partners with more than 1,000 national and international NGOs to provide food assistance and tackle the underlying causes of hunger.

Which among the above statements is/are correct?

A. 1 Only

B. Both 1 and 2

C. 2 Only

D. Neither 1 nor 2

72. Consider the following statements

1. Bumphead parrotfish are the world's largest parrotfish.

2. IUCN categorises Bumphead parrotfish as vulnerable.

Which among the above statements is/are incorrect?

A. 1 Only

B. 2 Only

C. Both 1 and 2

D. Neither 1 nor 2

73. Consider the following statements:

1. An EVM is designed with two units: the control unit and the balloting unit. These units are joined together by a cable.

2. The control unit of the EVM is kept with the presiding officer or the polling officer. The balloting unit is kept within the voting compartment for electors to cast their votes.

Which among the above statements is/are correct?

A. 1 Only

B. 2 Only

C. Both 1 and 2

D. Neither 1 nor 2

74. What separates the Andaman Islands and Nicobar Islands from each others

    A. The Ten Degree Channel

    B. The Nine Degree Channel

    C. The Eight Degree Channel

    D. The Eleven Degree Channel

75. Consider the following statements:

1. Odisha is home to 50 percent of the total world's population of Olive Ridley Turtles.

2. Olive Ridley Turtles are herbivores.

Which of the following statement/s is/are correct?

    A. 1 only

    B. 2 only

    C. Both 1 and 2

    D. Neither 1 nor 2

76. Consider the following statements:

1. Strait of Hormuz is a strait between Malaysia and Indonesia

2. It is one of the world's most strategically important choke point

Which of the following statement/s is/are correct?

    A. 1 only

    B. 2 only

    C. Both 1 and 2

    D. Neither 1 nor 2

77. . Consider the following statements with respect to Monkey Fever:

1. Flaviviridae is a family of bacteria that causes Monkey Fever.

2. The disease was first reported from Kyasanur Forest of Karnataka

Which of the following statement/s is/are correct?

    A. 1 only

    B. 2 only

    C. Both 1 and 2

    D. Neither 1 nor 2

78. Consider the following statements:

The tradition of Vasantotsav, meaning Spring Festival was started by Rabindranath Tagore at Shantiniketan

2. Rabindranath Tagore was awarded the Nobel Prize for Literature for his book Gitanjali.

Which of the following statement/s is/are correct?

    A. 1 only

    B. 2 only

    C. Both 1 and 2

    D. Neither 1 nor 2

79. Consider the following statements:

1. Chenchus are designated Scheduled Tribes in the states of Gujarat and Goa

2. Garo, Khasi and Jaintia tribes inhabit the state of Meghalaya

Which of the following statement/s is/are correct?

    A. 1 only

    B. 2 only

    C. Both 1 and 2

    D. Neither 1 nor 2

80. "Abhedya" recently seen in news is:

    A. A military exercise

    B. A Nuclear, Biological, Chemical (NBC) Training Facility

    C. A heavy lift helicopter

    D. A new scheme to provide financial assistance to SHGs

81. Consider the following statements about Fag/Phag festival:

1. It is celebrated in the state of Arunachal Pradesh.

2. It is celebrated to welcome the Hindu New Year.

Which of the given statement/s is/are correct?

    A. 1 only

    B. 2 only

    C. Both 1 and 2

    D. Neither 1 nor 2

82. "World Energy Outlook is published by

    A. Organization of the Petroleum Exporting Countries (OPEC)

    B. United Nations Environment Programme (UNEP)

    C. International Energy Agency (IEA)

    D. International Energy Forum (IEF)

83. Global Energy Transition Index is released by

    A. International Energy Agency (IEA)

    B. World Economic Forum (WEF)

    C. United Nations Environment Programme (UNEP)

    D. International Energy Forum (IEF)

84. Consider the following statements about the seals found in Harappan civilisation:

1. The seals are made of Steatite.

2. They were also used as amulets.

Which of the following statements are correct?

    A. 1 only

    B. 2 only

    C. Both 1 and 2

    D. Neither 1 nor 2

85. Consider the following statements with respect to the disease "Kala-azar":

1. It is a parasitic infection transmitted by mosquitoes.

2. It belongs to Neglected Tropical Disease (NTD) family.

3. It is the first largest parasitic killer in the world.

4. India accounts for half the global burden of Kala-azar disease.

Which of the statement/s given above is/are correct?

   A. 1 only

   B. 2 and 4 only

   C. 3 and 2 only

   D. 1, 2, 3 and 4

86. Consider the following about Convention on the Conservation of Migratory Species of Wild Animals (CMS):

1. CMS is an international treaty concluded under the aegis of United Nations Environment Programme (UNEP)

2. Its headquarters are in Bonn, Germany

3. It is for the second time that the summit is being hosted in India.

Which of the statement/s given above is/are INCORRECT?

   A. 1 only

   B. 3 only

   C. 1 and 3

   D. 2 and 3

87. Which of the following air pollutants are considered for determining the Air Quality Index?

1. Ozone

2. Carbon dioxide

3. Sulphur dioxide

4. Nitrogen dioxide

5. Carbon monoxide

6. Particulate Matter

   A. 1, 2, 3, 4, 5

   B. 1, 3, 4, 5, 6

   C. 2, 3, 4, 5, 6

   D. 1, 2, 3, 5, 6

88. Albedo is defined as:

   A. UV radiations sent out by the SUN

   B. A substance contained in the upper atmospheric layers of the earth, which is responsible for the reflection of/a part of solar radiations

   C. Celestial bodies in earth's atmosphere which add to the greenhouse effect

   D. The amount of insolation reflected back to space by the top of the atmosphere, by clouds and ice-covered areas of the Earth's surface

89. Consider the following statements:

1. Andaman and Nicobar islands are located close to equator and thus, experience equatorial type of climate and also have thick forest cover.

2. The Barren Island in the Andaman is the only volcanic Island of the country.

Which of the statement/s given is/are correct?

   A. 1 only

   B. 2 only

   C. Both 1 and 2

   D. None of the above

90. Consider the following statements:

1. The craft forms of Warangal Dhurries and Adilabad Dhokra have a Geographical Indication Tag (GI Tag).

2. Both the craft forms are from the state of Andhra Pradesh.

Which of the statement/s given is/are correct?

   A. 1 only

   B. 2 only

   C. Both 1 and 2

   D. Neither 1 nor 2

91. Which of the following is NOT correctly matched?

   A. Tirupati Laddu: Andhra Pradesh

   B. Muga Silk: Assam

   C. Dindigul Lock: Karnataka

   D. Gadwal Sarees: Telangana

92. Consider the following with respect to "Electoral Bonds":

1. Electoral bonds will be valid for 6 months during which they could be used to make donations to registered political parties.

2. Only those political parties that have secured not less than 1% of votes polled in the previous Lok Sabha elections or general election to the Assembly can avail funding through these bonds.

3. Electoral bonds are interest-free banking instruments.

4. India is the first country to introduce bonds for electoral funding.

Which of the following statements is/are true?

   A. 1 and 2 only

   B. 2 and 3 only

   C. 2, 3 and 4 only

   D. All of the above

93. Consider the following with respect to FAME India Scheme:

1. The objective of the scheme is providing monetary and fiscal incentives for market creation and adoption of electric & hybrid technology vehicles in the country.

2. It is a part of the National Electric Mobility Mission Plan 2020.

3. It intends to achieve about 9500 million litres of cumulative fuel savings, which would result in the reduction of emission of Greenhouse Gasses and pollution of 2 million tonnes.

4. The scheme was formulated by the Department of Heavy Industry under the Ministry of Heavy Industries and Public Enterprises.

Which of the statement/s are incorrect?

A. 2 only

B. 3 only

C. 1 and 2 only

D. 4 only

94. Consider the following statements:

1. World Monuments Fund (WMF) is a private, international, non-profit organization dedicated to the preservation of historic architecture and cultural heritage sites

2. WMF publishes the World Monuments Watch two year once.

Choose the correct answer from the options given below:

A. 1 only

B. 2 only

C. Neither 1 nor 2

D. Both 1 and 2

95. Consider the following statements:

1) Toluene when oxidised gets converted into benzoic acid.

2) Benzoic acid is used as a food preservative (E210) and medicine for fungal/bacterial infection.

Which among the above statements is/are correct?

A. 1 only

B. 2 only

C. Both 1 and 2

D. Neither 1 nor 2

96. Consider the following statements:

1. A nanomagnet is a submicrometric system that presents spontaneous magnetic order at zero applied magnetic field.

2. The small size of nanomagnets prevents the formation of magnetic domains.

Which among the above statements is/are incorrect?

A. 1 only

B. 2 only

C. Both 1 and 2

D. Neither 1 nor 2

97. Consider the following statements:

1. Iran shares borders with Iraq, Turkey, Azerbaijan, Turkmenistan, Armenia, Afghanistan, and Pakistan.

2. Chabahar Port is a seaport in Chabahar located in southeastern Iran, on the Gulf of Oman.

Which among the above statements is/are correct?

A. 1 only

B. 2 only

C. Both 1 and 2

D. Neither 1 nor 2

98. Consider the following:

1. NASA's Cassini spacecraft spent more than a decade examining Saturn's rings more closely than any spacecraft before it.

2. Saturn's rings are made of billions of pieces of ice, dust and rocks. Some of these particles are as small as a grain of salt.

Which among the above statements is/are correct?

A. 1 only

B. 2 only

C. Both 1 and 2

D. Neither 1 nor 2

99. World Happiness Report is a publication of:

A. United Nations Sustainable Development Solutions Network

B. World Bank

C. United Nations International Children's Emergency Fund

D. United Nations Economic and Social Council

100. Which of the following is not correctly matched?

A. Sampriti: Bangladesh

B. Mitra Shakti: Sri Lanka

C. Surya Kiran: China

D. Indra: Russia

ANSWER KEYS

Question No	Answer Keys
1.	C
2.	C
3.	A
4.	C
5.	A
6.	B
7.	D
8.	C
9.	B
10.	C
11.	C
12.	A
13.	A
14.	A
15.	D
16.	C
17.	B
18.	D
19.	C
20.	A
21.	B
22.	D
23.	D
24.	B
25.	D

Question No	Answer Keys
26.	D
27.	D
28.	C
29.	B
30.	A
31.	C
32.	C
33.	B
34.	A
35.	A
36.	B
37.	B
38.	D
39.	B
40.	A
41.	C
42.	D
43.	C
44.	C
45.	B
46.	D
47.	C
48.	C
49.	C
50.	A

Question No	Answer Keys	Question No	Answer Keys
51.	B	76.	B
52.	A	77.	B
53.	A	78.	C
54.	B	79.	B
55.	D	80.	B
56.	B	81.	B
57.	B	82.	C
58.	A	83.	B
59.	D	84.	C
60.	D	85.	B
61.	A	86.	B
62.	B	87.	B
63.	C	88.	D
64.	B	89.	A
65.	A	90.	A
66.	B	91.	C
67.	A	92.	C
68.	B	93.	B
69.	D	94.	D
70.	B	95.	C
71.	B	96.	D
72.	D	97.	C
73.	C	98.	C
74.	A	99.	A
75.	A	100.	C

MAINS PRACTICE QUESTIONS

1. The impact of climate change will affect India's food security, while reducing fodder supplies for our livestock. Prudent investments and policy reform can help make India resilient to climate change. Discuss

2. The Atal Tinkering Laboratories (ATLs) are at the vanguard of the promoting scientific temper and an entrepreneurial spirit in children today. Explain

3. Common Services Centers (CSCs) are more than service delivery points in rural India. They are positioned as change agents, promoting rural entrepreneurship and building rural capacities and livelihoods. Discuss the statement

4. The National Mineral Policy 2019 is a more effective, meaningful and implementable policy that brings in further transparency, better regulation and enforcement, balanced social and economic growth as well as sustainable mining practice. Analyse the statement

5. Write a note on the NASA's ARTEMIS mission and Atmospheric Waves Experiment.

6. Statutory backing to the CBI on an all India basis with a constitutional amendment is the need of the hour. Examine the statement

7. Critically analyze that Naga peace Accord- framework agreement will provide peace and stability in Nagaland?

8. Analyze that organic farming is key factor for raising the farmer' income to double?

9. Gender equality is a critical component of economic growth. Analyse this statement in the context of recently published World Bank's Women, Business and the Law 2019 Report.

10. While making hospitalisation affordable brings readily noticeable relief, there is no alternative to strengthening primary health care in the pursuit of an effective and efficient health system. Discuss

11. Evaluate the significance of Smart Cities in the development of new urban India

12. Explain the importance of private participants in the Indian Space Industry. Discuss the challenges, opportunities, and strategic concerns associated with it.

13. Truly smokeless kitchens can be realized only if the government follows up with measures that go beyond connections to actual usage of LPG. Explain

14. Recently, the Indian Sundarban was accorded the status of 'Wetland of International Importance' under the Ramsar Convention. In this context, write a note on the importance of wetlands and the role of Ramsar Convention in the conservation of wetlands.

15. Write a note on the state-of-the-art India Urban Observatory and Video Wall recently launched by the Ministry of Housing and Urban Affairs and its role in making urban cities 'Smart.'

16. The ball is set rolling for India's 17th Lok Sabha elections. The Election Commission (EC) has urged voters to vote freely, fearlessly, and make an informed and ethical choice. Suggest some feasible measures to achieve the same.

17. Discuss the issues being faced by the women due to traditional gendered roles and societal stereotypes.

18. Write a note on the importance of the Model Code of Conduct in conducting free and fair elections.

19. Women's Day Celebration is an acknowledgment of the Achievements of Women but what they also need is reforms in reality for empowerment and not roses of Corporate Consumerism. Illustrate with examples.

20. Discuss the contrasting views of Gandhi and Ambedkar on Caste System. Also suggest measures to control the growing myopic view on Caste System.

21. The United Nations Security Council (UNSC) is in urgent need for reform to reflect a more contemporary vision of the world. Discuss.

22. Plastics have emerged to be a major causative factor in environmental pollution these days. Examine the steps the world and India have taken in the recent past to address this concern.

23. Would reclassifying Hydro within the ambit of renewable energy help India reach the 175 GW Renewable Energy Target By 2022.

24. Sovereign Gold Bond (SGB) Scheme, launched in late 2015, is yet to take off in a significant way. What are the deterrents to the Scheme? Suggest measures to make it more attractive.

25. Rarest of Rare Doctrine for death penalty needs a deeper introspection as there is no uniform understanding. Explain the same with relevant cases.

26. Discuss the Sendai framework for disaster risk reduction.

27. The representation of people act should be suitably amended to allow a candidate to contest from one constituency. Critically Analyze.

28. The birth, growth and resilience of the far right, which once festered in dark nooks and crannies, has been assisted by the in-group echo chambers of social media. Explain in reference to the Christchurch massacre.

29. Political commitment to improving the quality of education backed by strong review and monitoring mechanisms can spur meaningful activity in the development of education. Analyze.

30. Examine the ethical issues in international relations. Do you think international institutions have played its role well in promoting 'Ethics in International Relations'? Critically Comment.

31. What is Brain Drain? What factors lead to Brain Drain? What are the measures taken by the Govt of India to prevent this?

32. If the goal of PRI's was to create another layer of government and political representation at the grass-roots level, then there is no parallel to the PRIs. And if the goal was to provide better governance, then PRIs are a failure. Evaluate.

33. In spite of various laws and Supreme Court's Precedents, torture and custodial deaths continue unabated. What are the various concerns, and what should India do to curb this menace which directly violates the Fundamental right to live with dignity.

34. There is an urgent need to bring the political parties under the ambit of RTI. Critically Analyse.

35. Discuss the ethical issues involved in immigration as a global phenomenon in reference to Christchurch Massacre. Also comment on rights of aliens.

36. With the GSP withdrawals initiated by USA, Critically examine if Globalization advances the economy or it can be a threat to National Economics and disturbs local manufacturing creating instability.

37. India's Taliban Policy needs to be examined again, taking into account various geopolitical pressures. Comment..

38. There needs to be greater surveillance across India for the West Nile Virus. Examine.

39. The recent deal between Italy and China on the Belt and Road Initiative (BRI) holds significance for the rest of Europe and raises concerns for India as well. Examine.

40. Coral Reefs are often referred to as rainforests of the sea. Unfortunately, these rainforests are under threat. Elaborate

41. Explain the Venezuela Presidential crisis. Also comment how the chaos in Venezuela will impact oil prices.

42. Ending TB by 2025 is impossible but pulling the TB curve down by 2025 and sustaining the decline ever after is in the realm of reality. Analyse the statement and suggest suitable measures.

43. With the successful anti-satellite missile test there is emergence of New India. Draw the parallel between India's Pokhran II and Mission Shakti and discuss its significance.

43. Anti-graft laws in India have exhibited a marked tendency to grind slowly. Discuss the implications on accountability and transparency.

44. Explain the measures taken by the government to make coastal regions more resilient against the extreme weather events in the backdrop of climate change. Comment.

45. India has been placing huge importance to renewable energy and has taken various steps in this regard. Explain

46. Geographical Indication Tags have the potential to expedite India's Economic Growth. Elucidate

47. Draw a contrast between the Indian and Western concept of Secularism. Comment on India's dilemma on secularism and suggest the way forward.

48. The recent decision by the U.S. to rescind the benefits Indian exports enjoy under the Generalised System of Preferences (GSP) programme has far-reaching implications for the Indian Economy. Critically Examine.

49. The Chabahar port in Iran can serve as a veritable gateway for India into Central Asia. Examine.

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