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Parliamentary Standing Committees

Strengthening Parliamentary Committees

Register of Indigenous Inhabitants of Nagaland (RIIN)

Nagaland version of the NRC

Banning of Cryptocurrency and Regulation of Official Digital Currency Bill, 2019

Why ban is a bad idea?

Iran's Nuclear Program

A door to nuclear escalation

Chandrayaan 2 Mission

India's mission to Moon's South Polar Region

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11 Ranks in Top 50 | **28 Ranks in Top 100** | **183 Ranks in the Final List**

Rank 11
Pujya Priyadarshni

Rank 16
Dhodmise Trupti Ankush

Rank 21
Rahul Jain

Rank 24
Anuraj Jain

CSE 2017

5 Ranks in top 50 | **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
Soumya Sharma

Rank 10
Abhishek Surana

CSE 2016

5 Ranks in top 50 | **34 Ranks** in top 100 | **236 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

CSE 2015

5 Ranks in top 50 | **34 Ranks** in top 100 | **236 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

CSE 2014

5 Ranks in top 50 | **34 Ranks** in top 100 | **236 Ranks** in the final list

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

CSE 2013

5 Ranks in top 50 | **62 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

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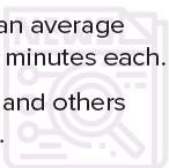
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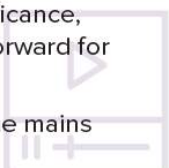
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POLITY

1. Aadhaar and Other Laws (Amendment) Bill, 2019

Context:

- The parliament has passed The Aadhaar and Other Laws (Amendment) Bill, 2019

Features

- It allows voluntary use of Aadhaar as proof of identity for users to open bank accounts and get mobile phone connection.
- The bill proposes giving a child an option to exit from the biometric ID programme on attaining 18 years of age.
- Provides for voluntary use of Aadhaar number in physical or electronic form by authentication or offline verification with the consent of Aadhaar number holder
- The amendments provide for use of Aadhaar number for KYC authentication on voluntary basis under the Telegraph Act, 1885, and the Prevention of Money Laundering Act, 2002.

Penalty

- Under the Bill, the UIDAI may initiate a complaint against an entity in the Aadhaar ecosystem for failure to
  * comply with the Act or the UIDAI's directions, and
  * Furnish information required by the UIDAI.
- Adjudicating Officers appointed by the UIDAI shall decide such matters, and may impose penalties up to one crore rupees on such entities.
- The Telecom Disputes Settlement and Appellate Tribunal shall be the appellate authority against decisions of the Adjudicating Officer.

2. Crimes that India's statute books have failed to define

Background

- In the State v. Sajjan Kumar (2018) Justice S. Muralidhar of the Delhi High Court lamented said "Neither 'crimes against humanity' nor 'genocide' has been made part of India's criminal law, a lacuna that needs to be addressed urgently"

What are Crimes Against Humanity (CAH)?

- The case concerned the mass killing of Sikhs during the anti-Sikh riots in 1984 in Delhi — and throughout the country.
- The court categorically stated that these kind of mass crimes "engineered by political actors with the assistance of the law enforcement agencies" fit into the category of crimes against humanity (CAH).

- Internationally, CAH are dealt with under the Rome Statute of the International Criminal Court (ICC).
- They are defined as offences such as murder, extermination, enslavement, deportation, torture, imprisonment and rape committed as a part of "widespread or systematic attack directed against any civilian population, with knowledge of the attack".

Issues-Reasons for reluctance

- India is not a party to the Rome Statute, which means that it is under no obligation at present to enact a separate legislation dealing with CAH. Even after ratification of the Genocide Convention (1948), India has not enacted it in domestic legislation.
- The most probable reason for India's reluctance to actively participate in the negotiation process on a separate Convention on CAH, which started in 2014, could be the adoption of the same definition of CAH as provided in the Rome Statute.
- India had objected to the definition of CAH during negotiations of the Rome Statute on three grounds.
  * First, India was not in favour of using 'widespread or systematic' as one of the conditions, preferring 'widespread and systematic', which would require a higher threshold of proof.
- Second, India wanted a distinction to be made between international and internal armed conflicts. This was probably because its internal conflicts with naxals and other non-state actors in places like Kashmir and the Northeast could fall under the scope of CAH.
- The third objection related to the inclusion of enforced disappearance of persons under CAH. It is pertinent here that India has signed but not yet ratified the UN International Convention for the Protection of All Persons from Enforced Disappearances as it would put the country under an obligation to criminalise it through domestic legislation.

Enforced Disappearance

- Victims of enforced disappearance are people who have literally disappeared; from their loved ones and their community.
- They go missing when state officials (or someone acting with state consent) grabs them from the street or from their homes and then deny it, or refuse to say where they are.
- Sometimes disappearances may be committed by armed non-state actors, like armed opposition groups. And it is always a crime under international law.

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Some examples

In State v. Sajjan Kumar, the Delhi High Court also said that "a familiar pattern of mass killings" was seen

- "In Mumbai in 1993, in Gujarat in 2002, in Kandhamal, Odisha in 2008, and Muzaffarnagar in Uttar Pradesh in 2013", where the criminals "have enjoyed political patronage and managed to evade prosecution".

Conclusion

- India's missing voice at the ILC does not go well with its claim of respect for an international rules-based order. Turning a blind eye to the mass crimes taking place in its territory and shielding the perpetrators reflect poorly on India's status as a democracy.

- It would be advisable for India to show political will and constructively engage with the ILC, which would also, in the process, address the shortcomings in the domestic criminal justice system.

3. J&K Reservation Bill

- The Bill amends the Jammu and Kashmir Reservation Act, 2004

  * The Act provides for reservation in appointment and promotions in state government posts, and admission to professional institutions for certain reserved categories.

  * Professional institutions include government medical colleges, dental colleges, and polytechnics.

- The Bill partially amends a Presidential Order of 1954 in order to amend the state's Reservation Act.

Extension of reservation:

- The Act provides for reservation in appointment and promotions in certain state government posts to persons belonging to socially and educationally backward classes. It defines socially and educationally backward classes to include persons living in areas adjoining the Actual Line of Control. Earlier, the provision of 3% reservation was available only for youth living within 6 kms of LoC in J&K.

  * The Bill amends this to include those persons living in areas adjoining the International Border, within the ambit of this reservation.

- Further, the Act states that any person who has been appointed on the basis of residence in an area adjoining the Line of Control, must serve in such areas for at least seven years.

  * The Bill extends this condition to persons living in areas adjoining the International Border as well.

- Exclusion from reservation: The Act states that any person whose annual income exceeds three lakh rupees or other amount as notified by the state government, would not be included within socially and educationally backward classes. However, this exclusion does not apply to persons living in areas adjoining the Actual Line of Control.

  * The Bill states that in addition, this exclusion will not apply to persons living in areas adjoining the International Border also.

The amendments

- This benefits residents in Jammu, Samba and Kathua.

- Through the Presidential Order, the Cabinet applied the 77th Constitutional Amendment of 1995 to J&K, giving benefits of reservation in promotion to Scheduled Castes and Scheduled Tribes in government service.

4. Karnataka Political Crisis

Context

- The Supreme Court gave the 15 dissident MLAs from Karnataka complete freedom to opt out of the ongoing Assembly session even as it acknowledged the Speaker's discretion to decide on their resignations as and when he considers it appropriate.

What does it mean for the rebel MLA's under Anti Defection law?

- It amounts to holding that provisions of the anti-defection law, under which parties can issue whips to their members to vote in a particular way, will not be applicable to the 15 MLAs.

- The free run given by the Supreme Court to the dissident legislators means they can defy a party whip without fear of disqualification for defection under clause 2 (b) of the Tenth Schedule of the Constitution.

- Clause 2 (b) mandates that a legislator is liable for defection if he or she "votes or abstains from voting in such House contrary to any direction issued by the political party to which he belongs or by any person or authority authorized by it in this behalf..."

The order also permits the Speaker to decide on the resignation of these MLAs in a time-frame he considers appropriate.

- India's constitutional democracy rests on a separation of powers. The legislature is indeed autonomous, subject to the Constitution, and it is not the business of the judiciary to enter into its realm.

- By recognising the Speaker's authority to determine the fate of the resignations, the court has abided by this principle.

Questions before SC

One of the enquiries in the litigation is whether it is resignation or disqualification that should get priority.

- The objective of disqualifying the MLAs rather than allowing them to quit will not save the government, but it will prevent them from taking oath as ministers in an alternative Cabinet.
- The dissident MLAs now risk nothing other than their seats, certainly not the opportunity to join the Cabinet of a successor-government

Issues with the Judgment

- The order raises the concern whether it does not constitute a perilous precedent for granting ad hoc judicial exceptions from constitutional provisions on defection and set the tone for future judicial intervention to suspend the operation of any whip in respect of a few.
- Critics have pointed out that by doing so, the court has undermined the principles which govern the anti-defection law (for an MLA, even while being a member, is not bound by the whip in this case) and reflect overreach.

Alternatives that could have been looked at by the Judiciary

- The court, which is understandably reluctant to intervene in the Speaker's power ahead of his decisions, could have refrained from making any orders about the legislators' presence during the trust vote, and made it clear that any action against them arising out of their absence or manner of voting would be subject to judicial review.

Conclusion

- To be fair to the Supreme Court, it is being burdened with the task of unravelling political knots, which means that more partisan our supposedly independent political institutions act, the more active the judiciary will become. This is not healthy for democracy.

Trust Vote

- The Chief Minster stays in power as long as it retains the confidence of the state Assembly. The Trust Vote or Confidence Vote is proposed by the party in power in order to demonstrate that it still enjoys the support of the majority of MLAs.
- A trust vote is a motion through which the government of the day seeks to know whether it still enjoys the confidence of parliament or Assembly.
- A trust vote is sought either during the first session if it is not clear whether a party or a grouping of parties command a majority in the house, or at any time during the five-year tenure of the house if it becomes apparent that the government of the day has lost its majority.

- This initiative is often looked upon as a strategy of the state government to pre-empt a no-confidence motion by the opposition parties.

What Happens When The Government Loses Trust Vote?

- If the results of the trust vote don't appear to be in favour of the ruling party, the Governor of the state orders resignation of the Chief Minister and new Assembly elections are sought i.e. government would be expected to resign if it loses a trust vote.

Context:

- The 14-month Congress-JD(S) government in Karnataka collapsed, with Chief Minister H.D. Kumaraswamy losing the confidence motion on the floor of the Assembly by six votes.

Background:

- The 2018 Assembly polls had thrown up a fractured mandate in Karnataka.
- The numerical strength of parties, in the House of 225, stood at 105 for BJP, 78 (Plus, one of Speaker) for Congress and 37 for JDS.
- The Congress and JDS had come together to form a coalition as a counter to the BJP.

Details:

- In a House of 225 MLAs (including one nominated member) 20 MLAs were not present at the time of voting. The absentees included 15 rebel MLAs who have resigned – 12 from Congress and 3 from JD(S), 2 Congress MLAs who abstained due to health reasons, 2 Independents and the lone BSP MLA.
- The confidence motion was put to vote, six days after Mr. Kumaraswamy moved it and amid a heated debate on the issue of 15 resignations from the ruling parties.
- While 99 MLAs expressed confidence in the Kumaraswamy-led government, 105 opposed it.
- The speaker announced that the motion was defeated and adjourned the House sine die.
- He later tendered his resignation to Governor Vajubhai Vala.
- Following which BJP announced its decision to stake a claim to form a government in the state.

Speaker disqualifies 14 rebel MLAs

Context

- Karnataka assembly speaker KR Ramesh disqualified remaining 14 rebel MLAs with immediate effect till the end of the term assembly,

Details

- Among the rebel MLAs, who were disqualified by the speaker, 11 are from the Congress while three are from the JD(S).

- With the fresh development, the total number of rebel MLAs disqualified stands at 17

Current Status

- All the 14 disqualified Congress and Janata Dal (Secular) MLAs in Karnataka moved the Supreme Court, challenging their disqualification as legislators from the state assembly.
- The disqualified MLAs have sought quashing order of disqualification by KR Ramesh Kumar

5. Odisha plans scheme for witness protection

Context

- The Odisha government has come up with a special 'Witness Protection Scheme' to provide security to witnesses facing threat during the course of a legal battle.

Details

- According to the notification, a District-Level Standing Committee, chaired by a district and sessions judge, with the district police head as its member and the head of the prosecution in the district as its member secretary, will take a call on the need for protection.
- The District Police Chief will submit a report with regard to the seriousness and credibility of the threat to the witness or his/her family members if the person applies in a prescribed form.
  * The report will detail the nature of the threat to the witness or his/her family members, their reputation or property.
  * The threat analysis report, prepared with "full confidentiality", will reach the competent authority "within five working days of its order for inquiry".
  * Based on the report, the authority will pass an order for protection of identity of the witness.
- The Witness Protection Cell will then ensure that the identities of the witness and his/her family members, including names, parentage, occupation, address and digital footprints, are fully protected.
- Provision of relocation of the witness to a safer place has also been made in the scheme.
- In appropriate cases, where there is a request from the witness for change of identity, based on the threat analysis report, a decision can be taken to confer "a new identity upon the witness through a competent authority".
- A dedicated cell of the State police or Central police agencies will be assigned with the duty of implementing the witness protection order. The 'Witness Protection Fund' proposed to be created will bear the expenses incurred during the implementation of the protection order.

- In case the witness has lodged a false complaint, the State home department could initiate proceedings for recovery of the expenditure from the applicant.

6. Protection of Human Rights (Amendment) Bill, 2019

Context

- Parliament Passes the Protection of Human Rights (Amendment) Bill, 2019 unanimously
- The Bill amends the Protection of Human Rights Act, 1993.
- The Act provides for a National Human Rights Commission (NHRC), State Human Rights Commissions (SHRC), as well as Human Rights Courts.

Composition of NHRC:

- Under the Act, the chairperson of the NHRC is a person who has been a Chief Justice of the Supreme Court.
  * The Bill amends this to provide that a person who has been Chief Justice of the Supreme Court, or a Judge of the Supreme Court will be the chairperson of the NHRC.
- Chairperson of SHRC: Under the Act, the chairperson of a SHRC is a person who has been a Chief Justice of a High Court.
  * The Bill amends this to provide that a person who has been Chief Justice or Judge of a High Court will be chairperson of a SHRC.
- The Act provides for two persons having knowledge of human rights to be appointed as members of the NHRC.
  * The Bill amends this to allow three members to be appointed, of which at least one will be a woman.
- Under the Act, chairpersons of various commissions such as the National Commission for Scheduled Castes, National Commission for Scheduled Tribes, and National Commission for Women are members of the NHRC.
  * The Bill provides for including the chairpersons of the National Commission for Backward Classes, the National Commission for the Protection of Child Rights, and the Chief Commissioner for Persons with Disabilities as members of the NHRC.

Term of office:

- The Act states that the chairperson and members of the NHRC and SHRC will hold office for five years or till the age of seventy years, whichever is earlier..
  * The Bill reduces the term of office to three years or till the age of seventy years, whichever is earlier.

- Further, the Act allows for the reappointment of members of the NHRC and SHRCs for a period of five years.

  * The Bill removes the five-year limit for reappointment.

Union Territories:

- The Bill provides that the central government may confer on a SHRC human rights functions being discharged by Union Territories.

- Functions relating to human rights in the case of Delhi will be dealt with by the NHRC

Powers of Secretary-General:

- The Act provides for a Secretary-General of the NHRC and a Secretary of a SHRC, who exercise powers as may be delegated to them.

  * The Bill amends this and allows the Secretary-General and Secretary to exercise all administrative and financial powers (except judicial functions), subject to the respective chairperson's control.

Paris Principles

- The United Nations Paris Principles provide the international benchmarks against which national human rights institutions (NHRIs) can be accredited by the Global Alliance of National Human Rights Institutions (GANHRI).

The Paris Principles set out six main criteria that NHRIs require to meet:

- Mandate and competence: a broad mandate, based on universal human rights norms and standards;

- Autonomy from Government;

- Independence guaranteed by statute or Constitution;

- Pluralism;

- Adequate resources; and

- Adequate powers of investigation.

7. **Reservation of Jobs in Private Sector**

   Context

   - Andhra Pradesh has become the first state in the country to offer 75 per cent reservation to locals in private jobs.

   - Andhra Pradesh Assembly passed the Andhra Pradesh Employment of Local Candidates in Industries/Factories Act, 2019, under which privates jobs across factories, industrial units, joint ventures, private projects will be reserved for local Andhra people.

   Details

   - The new law in Andhra will now require private companies to train locals if people with suitable skills are not available.

- Reservation for locals however has not been extended to hazardous sectors, such as coal, fertilizers or cement, which are listed in the first schedule of Factories Act of the state.

Issues that may arise because of this move

- Arm-twisting private sector players to employ people through reservation will impact their freedom of operation.

- The move will make companies think on investment. With lack of investments and no jobs created this might even haunt the locals

- Government is talking about ease of doing business and bringing in labour reforms. Under such a situation taking away partial rights of companies to select their candidates will be a jolt to good work done.

- The idea of India is under threat with other state governments giving into parochial interests defeating the purpose of Pan India unity.

Conclusion

- This could perpetuate India's economic fragmentation and adversely impact the labour market. Such policies also impose financial costs on the states that resort to such misadventures. These policies destabilize the social fabric creates social tension of local vs non local and may also give rise to call for reservation in private as a whole and lead to further brain drain. So the Govt should be cautious while initiating such actions going forward.

Education Sector

The Supreme Court of India in its line of judgments on the issue of the legal validity of domicile reservations has ruled in favor of the policy providing the essential basis to the state governments to formulate them. This decision was first pronounced by a three-judge bench in the case of Dr. Pradeep Jain v. Union of India in the year 1984 wherein the court provided two broad justifications for the domicile reservation-

- The first consideration was premised on the fact that state government provides a considerable financial assistance to the universities within its borders and this money is derived from the taxes paid by the people domiciled in that particular state.

  * Hence there exists a legitimate state interest to promote education within its borders

- The second consideration provided in Dr. Pradeep Jain was the claim of backwardness by a particular region. This means that the justifications for domicile reservation are to be found in the compelling interest for a particular State or Union Territory to provide an opportunity to the weaker and backward section of the state.

Why Supreme Court upheld Domicile reservation?

- Firstly, it was stated that there exists a disparity between the different states in the country wherein the states which are backward and where the students do not have adequate opportunity will fail to compete with advanced states in an all India open competition.

- Secondly, there may be many students who do not possess adequate means to travel to far off states and pursue their higher education. Based on the aforesaid reasoning the Court upheld the validity of domicile reservation.

8. **Soon, read SC judgments in your language**

   Context

   - Judgments of the Supreme Court of India will soon be available in six Indian languages.

   - As per news reports, Hindi, Telugu, Assamese, Kannada, Marathi and Odia translations of Supreme Court judgments are set to be introduced on the Court's website

   Why was this project taken up?

   - This is in focus of helping and benefitting the litigants, who after fighting their cases for years, are left unable to read the judgments in their own cases for the sole reason that they did not know English. They had to depend on lawyers for it

   - It further helps them understand how the SC works and enhance their knowledge which was not present till date.

   Details

   - Unlike orders written in English that are posted on the website on the day they are passed, the translated versions would be uploaded a week later

   - Software by the electronic software wing of the Supreme Court will be developed indigenously.

   - The court was taking the help of the High Courts in making the move a success.

   - The project included not only translating the apex court judgments into Hindi and other vernacular languages but also to provide summaries of the apex court's verdicts.

9. **Why are Parliamentary Standing Committees necessary?**

   Context

   - Eleven of the 22 Bills introduced in the ongoing session of Parliament have been passed, which makes it a highly productive session after many years.

Where do they draw their powers from?

- Parliamentary committees draw their authority from Article 105 (on privileges of Parliament members) and Article 118 (on Parliament's authority to make rules for regulating its procedure and conduct of business).

What are its origins?

- As is the case with several other practices of Indian parliamentary democracy, the institution of Parliamentary Committees also has its origins in the British Parliament.

- The first Parliamentary Committee was constituted in 1571 in Britain.

   * The Public Accounts Committee was established in 1861.

- In India, the first Public Accounts Committee was constituted in April 1950.

- According to P.D.T. Achary, former Secretary General of the Lok Sabha, "The practice of regularly referring bills to committees began in 1989 after government departments started forming their own standing committees. Prior to that, select committees or joint committees of the houses were only set up to scrutinize in detail some very important bills, but this was few and far between."

What is it?

- A Parliamentary Committee means a Committee which is appointed or elected by the House or nominated by the Speaker and which works under the direction of the Speaker and presents its report to the House or to the Speaker and the Secretariat for which is provided by the Lok Sabha Secretariat.

What are the types of committees?

- Most committees are 'standing' as their existence is uninterrupted and usually reconstituted on an annual basis;

   * Some standing committees are departmentally related, an example being the Standing Committee on Human Resource Development.

   * The three financial committees the Public Accounts Committee, the Estimates Committee and the Committee on Public Undertakings.

- Some are 'select' committees formed for a specific purpose, for instance, to deliberate on a particular bill.

   * They are Adhoc in nature.

   * They are dissolved once the purpose is met which means Once the Bill is disposed of, that select committee ceases to exist.

- A Bill related to education could either be considered by the department standing committee or a select committee that will be specifically set up.
- The chair uses her discretion to refer a matter to a parliamentary committee but this is usually done in consultation with leaders of parties in the House.

Why have parliamentary committees?

In a parliamentary democracy, Parliament has broadly two functions, which are lawmaking and oversight of the executive branch of the government. Parliament is the embodiment of the people's will. Committees are an instrument of Parliament for its own effective functioning.

- First, they help Parliament manage its business better. It is easier to examine a topic in depth by a committee of 30 thn by an assembly of 700.
    * Given the volume of legislative business, discussing all Bills under the consideration of Parliament in detail on the floor of the House is impossible. Committees are platforms for discussion on a proposed law.
- Second, they enable input from experts and those who may be directly affected by a policy or legislation. For example, the Departmentally Related Standing Committees (DRSCs) often invite comments from the public and call several people to testify before them.
    * At least in principle, the assumption is that the smaller cohort of lawmakers, assembled on the basis of the proportional strength of individual parties and interests and expertise of individual lawmakers, could have more open, intensive and better informed discussions.
- Third, being outside direct public glare allows members to discuss issues and reach consensus without worrying about constituency pressures.
- A related fourth advantage in the Indian context is that the anti-defection law does not apply to committees—therefore, decisions are not usually made on party lines.
    * Committee meetings are 'closed door' and members are not bound by party whips, which allows them the latitude for a more meaningful exchange of views as against discussions in full and open Houses where grandstanding and party positions invariably take precedence.
- Fifth these committees allow members to focus on some specific areas and build their expertise, which helps them scrutinize issues more thoroughly.
- Finally, Executive accountability to the legislature is enforced through questions in Parliament also, which are answered by ministers.

    * However, department standing committees go one step further and hear from senior officials of the government in a closed setting, allowing for more detailed discussions.
    * This mechanism also enables parliamentarians to understand the executive processes closely.

Specialization

- Disruptive changes in technology and the expansion of trade, commerce and economy in general throw up new policy challenges that require a constant reform of legal and institutional structures.
- While lawmaking gets increasingly complex, lawmakers cannot infinitely expand their knowledge into ever expanding areas of human activities. For instance, we live in an era of metadata being generated by expanding connectivity.
- The laws and regulations that are required to govern a digital society cannot be made without highly specialized knowledge and political acumen.
- Members of Parliament may have great acumen but they would require the assistance of experts in dealing with such situations. It is through committees that such expertise is drawn into lawmaking.

Therefore these Committee reports are usually exhaustive and provide authentic information on matters related to governance. Bills that are referred to committees are returned to the House with significant value addition. Parliament is not bound by the recommendations of committees.

Concern

- But these Bills have been passed without scrutiny by parliamentary standing committees, their purpose being to enable detailed consideration of a piece of legislation.
- They were discussed in Parliament over durations ranging between two and five hours.
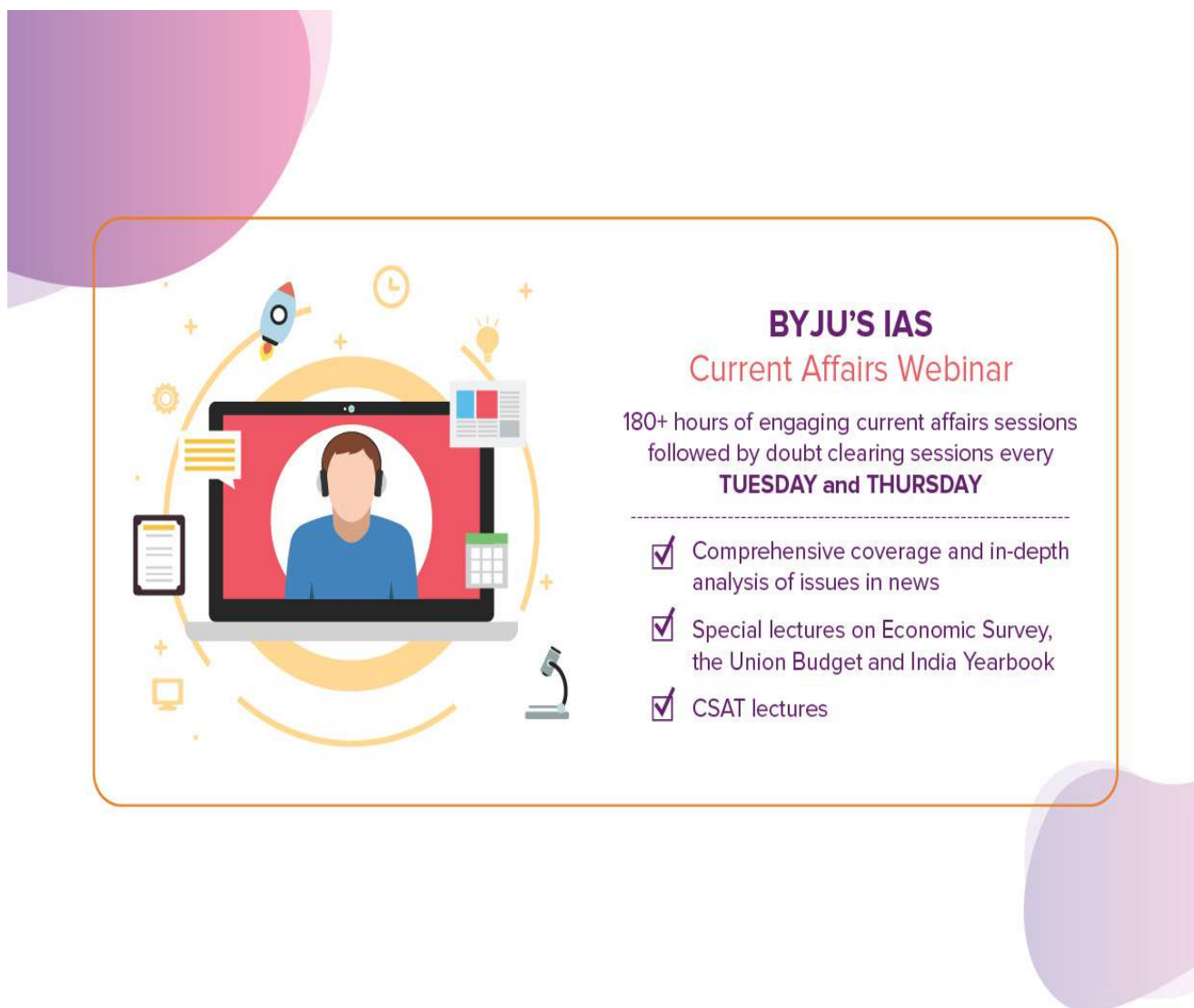
In 2002, National Commission to Review the Working of the Constitution (NCRWC) pointed out some shortcomings of the committees:

- Low attendance of MP's at meetings.
- Too many ministries under a committee.
- Norms not followed by most political parties while nominating MPs to committees.
- The constitution of Departmentally Related Standing Committees (DRSCs) for a year leaves very little time for specializations.

Recommendations of NCRWC:

- Committees should be periodically reviewed. All Bills should be referred to these committees. They can elicit public views and call specialist advisors.

- Major reports of all Committees should be discussed in Parliament especially in cases where there is disagreement between a Committee and the government.

- Parliamentary committees don't have dedicated subject-wise research support available.

  * The NCRWC has recommended that in order to strengthen the committee system, research support should be made available to them.

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ECONOMY

1. **A thumbs down to unilateralism – On India- U.S.A trade relations**

   Context

   - The United States is acting in defiance of agreed rules to target India's WTO-consistent policies.

   - Tensions are high between India and the United States as the Economic relations are on a knife-edge after the U.S. took a series of unilateral actions against India's exports.

   Details:

   - India recently announced retaliatory move of increasing tariffs on 28 products imported from its largest trade partner- the U.S.

   - As a result of these developments, India has become the Trump administration's most significant target after China.

   - It must be taken note of, that over the past few decades, while similar complaints have been made by successive U.S. administrations, the tone and tenor of the Trump administration has distinctly increased the demands.

   - The U.S. has questioned India's trade and other related economic policies, in several instances.

   - In the past, U.S. agencies — in particular, the Office of the United States Trade Representative (USTR) and the United States International Trade Commission (USITC) — have investigated India's trade policies, the conclusions of which have been used by the administration to demand changes in policies that would benefit American businesses.

   - The latest demands stem from two extensive USITC investigations which were conducted between 2013 and 2015 on India's trade, investment, and industrial policies.

   - The main message that was conveyed by these investigations was that American businesses strong disapproved several of India's key policies on trade and investment and that these policies had to be amended.

   Issues:

   - The investigations conducted by the U.S. agencies raise several issues of propriety, procedures and substance.

   - These three dimensions need to be understood well for this is the only way in which the Government of India can prepare appropriate responses to the persistent questioning by the U.S. administration of its trade and investment policies.

   - The first is the issue of propriety.

     * All of India's trade-related policies which include intellectual property rights that were investigated and questioned in the two USITC reports were done under the cover of the U.S.'s domestic laws. This is tantamount to unilateralism. The response to this should be an unequivocal "no" in this age of multilateralism, where differences on policy issues between sovereign countries must be resolved in the appropriate multilateral forums.

     * The possibilities of a stronger power using unilateral means should be eliminated.

     * It is in this spirit that the General Agreement on Tariffs and Trade (GATT) was established as an integral part of the post-war global economic governance, which was replaced by the World Trade Organization (WTO) in 1995.

     * The areas that were investigated by the USITC during the two investigations were also those that are covered by the WTO.

     * Therefore, propriety and global trade rules demanded that the concerns of American businesses about India's policies had to be addressed within the WTO through consultations among the members.

     * The global community agrees that this would be the best way of preventing countries from getting into trade wars, which had pushed the global economy into the depression of the 1930s.

     * The only country disagreeing with this position is the U.S.; it seems intent on pushing its trade partners into trade wars.

   - The second issue is of the Procedure of conducting investigations.

     * The procedure of conducting the investigations was deeply flawed, for it provided a platform for vested interests in the U.S. to make common cause against India's policies.

     * In these investigations, U.S. government agencies have been not only acting as the judge and the jury but also actively engaged in getting the findings of the investigations implemented.

   - The third issue is of Substance:

     * The substance of the investigations touched trade-related issues that are covered by the WTO agreements.

* Since the establishment of the WTO, India's policies have mostly been consistent with its commitments; where they have not been, other WTO members, including the U.S., have approached the dispute settlement body of the organisation to make India fall in line.

* The fact that the U.S. is not approaching the WTO to challenge India's trade and investment policies that American businesses find detrimental to their interests implies the following: India's largest trade partner is acting in defiance of agreed rules to target India's WTO-consistent policies.

* For instance, India's high tariffs were agreed to in the Uruguay Round negotiations in consultation with all members of the organisation. Moreover, in the period since, India has lowered tariffs on many agricultural and industrial products.

* In contrast the U.S. continues to defend its high levels of agricultural subsidies which are used for lowering commodity prices to levels at which no other country can have access to its domestic market.

* Thus, the U.S. does not need tariffs to protect its agriculture; it uses subsidies, instead.

* The WTO also informs us that the U.S. also uses very high tariffs on tobacco (350%), peanut (164%) and some dairy products (118%).

Conclusion:

• The India-U.S. discord over trade stems from a deep-seated desire of U.S. businesses to have a bigger footprint in the Indian economy, and to achieve this goal, the administration is stepping beyond legitimate means.

• In fact, the basis of the discord lies in the way the U.S. has been targeting India's policies, disregarding the rule of law.

• Early resolution of this discord seems difficult as the U.S. has decided to undermine the WTO's dispute settlement mechanism and walk down the path of unilateralism instead.

• Under these circumstances, the Government of India would have focus on two fronts:

   * To remain engaged with its largest trade partner

   * Also engage actively with the global community to make the U.S. understand the imperatives of a rules-based trading system.

2. **Banning of Cryptocurrency and Regulation of Official Digital Currency Bill, 2019**

Conclusion:

• An inter-ministerial committee headed by finance secretary Subhash Chandra Garg, set up by the government on virtual currencies has proposed banning of private cryptocurrencies in India by enacting a law and imposing fines and penalties for carrying on activities related to such cryptocurrencies

What is a Cryptocurrency?

• A virtual currency is a digital representation of value that can be digitally traded and functions as (a) a medium of exchange, and/ or (b) a unit of account, and/or (c) a store of value, but, unlike fiat currency like the rupee, it is not legal tender and does not have the backing of a government.

• A cryptocurrency is a digital or virtual currency that uses cryptography for security and is generally based on blockchain technology, a distributed ledger enforced by a disparate network of computers.

   * Bitcoin is the most popular cryptocurrency in the world.

• Given the high chances of cryptocurrencies being misused for money laundering, various government bodies such as the Income Tax Department and the Central Board of Indirect Taxes and Customs (CBIC) had endorsed banning of cryptocurrency

Blockchain Technology
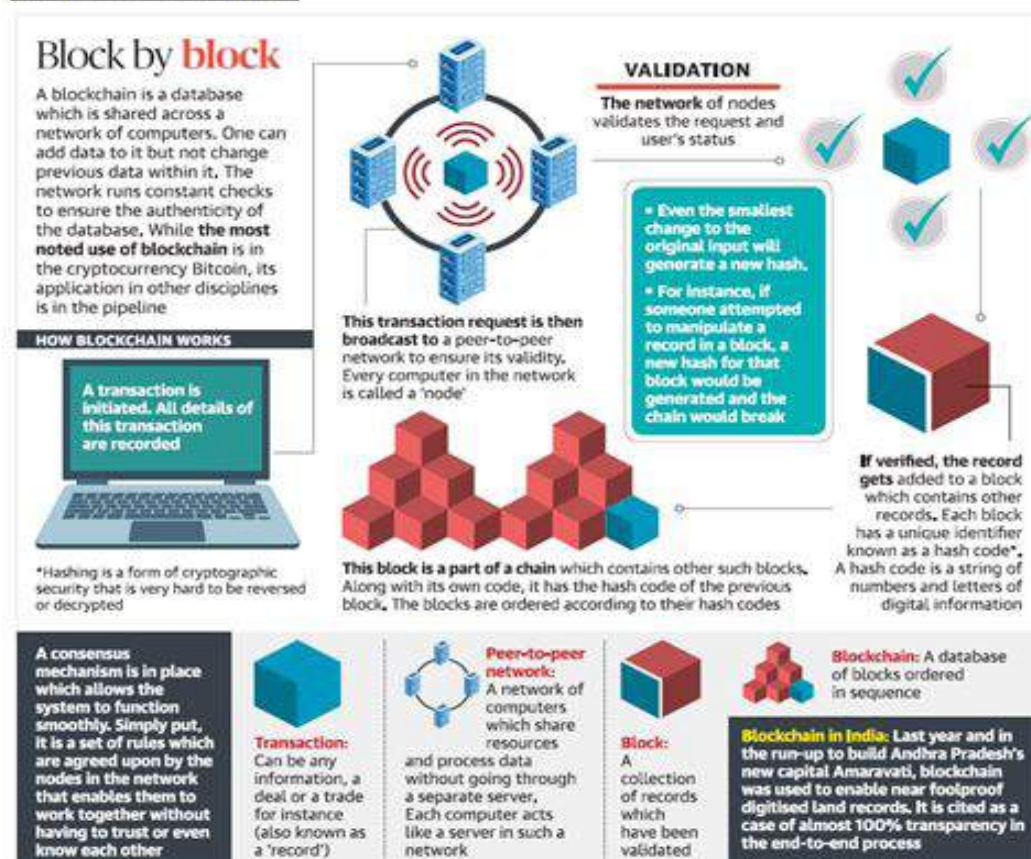
Distributed Ledger Technologies (DLT)

- DLT therefore refers to technologies that involve the use of independent computers (also referred to as nodes) to record, share, and synchronise transactions in their respective electronic ledgers.
- Keeping such distributed ledgers obviates the need for keeping the data centralised, as is done in a traditional ledger.
- All virtual currencies use DLT.

Inter-Ministerial Committee (IMC) view on DLT

IMC recognises the potential of DLT and Blockchain.

- The IMC accepts that internationally, the application of DLT is being explored in the areas of trade finance, mortgage loan applications, digital identity management or KYC requirements, cross-border fund transfers and clearing and settlement systems.
- To that extent, it recommends the Department of Economic Affairs (within the Finance Ministry) to take necessary measures to facilitate the use of DLT in the entire financial field after identifying its uses.
- The IMC also recommends that regulators — RBI, SEBI, IRDA, PFRDA, and IBBI — explore evolving appropriate regulations for development of DLT in their respective areas.

However, the IMC has recommended a ban on "private" cryptocurrencies.

Features of Draft Bill

- The panel recommended a fine of up to ₹25 crore for anyone found to be owning or handling private cryptocurrencies.
- This draft has proposed 10-year prison sentence for persons who "mine, generate, hold, sell, transfer, dispose, issue or deal in cryptocurrencies.
- As an alternative to private cryptocurrencies, the panel recommended the introduction of a single cryptocurrency for the whole country that is backed by the Reserve Bank of India (RBI).
- Besides making it completely illegal, the bill makes holding of cryptos a non-bailable offence.

Why have private cryptocurrencies attracted a ban?

- The IMC's first concern is that non-official virtual currencies can be used to defraud consumers, particularly unsophisticated consumers or investors.
- The IMC gives the example of the Rs 2,000 crore scam involving GainBitcoin in India where investors were duped by a Ponzi scheme.
- Moreover, such currencies often experience tremendous volatility in their value.
  - * For example, Bitcoin was selling at $20,000 per coin in December 2017 but in less than a year, it was trading at $3,800 per coin. In a country where lakhs of traders get involved in such currencies, this could have huge implications.

- Scaling up such a currency system over a large population would require crippling levels of energy resources. Currencies such as Bitcoin require humongous processing power.
    * According to a report by the Bank of International Settlement, Bitcoin processing already uses as much energy as is used by Switzerland; it called this an environmental disaster.
- IMC is worried that if private cryptocurrencies are allowed to function as legal tender, the RBI would lose control over the monetary policy and financial stability, as it would not be able to keep a tab on the money supply in the economy.
- The anonymity of private digital currencies make them vulnerable to money laundering and use in terrorist financing activities while making law enforcement difficult.
- There is no grievance redressal mechanism in such a system, as all transactions are irreversible.

While it is important to put mechanisms in place to deter bad actors, a blanket ban on all forms of cryptocurrency transactions will result in India missing out on what may become one of the biggest technology revolutions since the Internet.

Why ban is a bad idea?

- One of the reasons for ban of Cryptocurrency is Volatility, but it doesn't sound like a good rationale to ban cryptocurrencies because if cryptocurrencies are volatile, so are many other asset classes.
    * We do not ban investments in any other asset class just because it is volatile. The decision of whether to invest in an asset or not should be left to the investor.
    * The risk return calculation should be done by the investor, not the government.
- Also, banning the consumption of a good or service doesn't really mean that people will stop consuming it.
    * The market for the good or service simply goes underground and becomes hard to track. The market continues to exist, but the government cannot track it or tax it to gain revenue.
    * This applies to cryptocurrencies as well.
- Most people equate cryptocurrencies with blockchain, but there is a huge difference between them. The cryptocurrency is just one application of the underlying blockchain technology. The blockchain technology has a lot more potential beyond cryptocurrencies.
- In 2018, in the Silicon Valley alone, almost $2.9 billion worth of private venture funds have gone into blockchain start-ups.

* In tech hubs across the world, we are seeing billions pumped into the blockchain technology. In this scenario, if we decide to put a blanket ban on all cryptocurrencies, then our technology entrepreneurs will suddenly lose the incentive to work in the sector.
- Industry body Nasscom (National Association of Software and Services Companies) has opposed the recent proposal for banning cryptocurrencies in India, saying it is "not a solution".

The potential of Blockchain

- While an oversimplification, blockchain can be described as a way for people to share extra space and computational power in their computers to create a global supercomputer that is accessible for everyone.
- Every computer connected to a blockchain network helps validate and record transactions.
- People who connect their computers to a network are known as validators and receive transaction fees in the form of tokens.
- Blockchain technology has the potential to create new industries and transform existing ones in ways we cannot imagine.
    * For instance, it has the capacity to facilitate nano-payments proportionate to an individual's contribution and value creation in the Internet, making it an ideal wealth redistribution tool for our digital age.
- Start-ups have already built thousands of apps on blockchain platforms like Ethereum. However, these apps aren't easily available to non-tech savvy consumers through an app store, and hence their usage remains low.
    * They also face technical problems including scalability and slowing down of the network when many people use these apps simultaneously.
    * New companies such as Algorand and CasperLabs are investing millions in research and development and are close to solving these issues.
- Even big technology companies have started to take blockchain applications seriously. Facebook, for instance, recently announced its own cryptocurrency to facilitate payments globally with minimal fees and no dependency on a central bank.
- Therefore a law to ban holding or transacting in cryptocurrency would not only prevent Indians from reaping economic benefits by participating in blockchain networks as validators and earning transaction fees, but also stifle any innovation related to this disruptive emerging technology.

The European example

- The European Parliament and European Council are working on an Anti-Money Laundering Directive, known as AMLD5. The deadline for its implementation is January 2020.

- All crypto exchanges and wallet custodians operating in Europe will have to implement strict know-your-customer (KYC) on-boarding procedures and need to register with local authorities.

- They will also be required to report suspicious activities to relevant bodies.

- This will not fully solve the problem since it is not always possible for the exchange to know a beneficiary's details.

- The EU Commission is aware and has been mandated to present further set of amendment proposals regarding self-declaration by virtual currency owners, the maintenance of central databases registering users' identities and wallet addresses, and norms while using virtual currencies as payment or investment means by 2022. This is a more reasonable approach, and the Indian government could follow suit.

-

Way forward

- The report of the Government's Working Group on FinTech and Digital Banking (2018) suggests that the use of digital currencies does not pose an immediate threat to the economy.

- If the government feels that there is enough rationale to regulate the consumption of a commodity or a service or investments in a crypto asset, the best way forward is to come up with a regulatory framework that has incentives set right for the users.

- Therefore right rewards and punishments in place, would help. Not actions like banning

3. **China stresses need for united trade front**

Context:

- China has shown its interest in partnering with India to build a united front of emerging economies and developing countries to counter trade headwinds.

Details:

- China has invoked the principle of Panchsheel in protecting multilateralism and globalization

COMPARISON OF REGULATORY TREATMENT OF CRYPTOCURRENCIES IN DIFFERENT JURISDICTIONS

Activities	Russia	China	Switzerland	Thailand	Japan	New York	Canada
Legal Tender	No	No	No	No	No	No	No
Payment Method	No (but barter is permitted via exchanges)	No	Yes	Yes	Yes	Yes (subject to registration requirement)	Yes (and transactions are taxed)
Investment Token	Yes (but only through exchanges)	No	Yes (but transactions must comply with securities laws)	Yes (but they are only issued by govt approved portals)	Regulation is silent on this, but it is under consideration	Yes, with some conditions	Yes
Crypto Exchanges	Yes	No	The guidelines are silent	Yes	Yes, but only through registered exchanges	Yes, subject to some laws on exchanges	Yes

What is Panchsheel?

- While signing a peace agreement with China; PM Nehru advocated adherence to five guiding principles known as Panchsheel.

- Panchsheel was signed in 1954 and since then it has become a guiding principle of India' bilateral relations with countries also.

- Panchsheel includes the following five principles of foreign policy:

    * Mutual respect for each other's territorial integrity and sovereignty.

    * Non-aggression against each other.

    * Non-interference in each other's internal affairs.

    * Equality and mutual benefit.

    * Peaceful co-existence.

- These principles of Panchsheel were later incorporated in the Bandung Declaration, signed in the Afro-Asian Conference held in 1955 in Indonesia.

- They are the core principles of Non-alignment and still guide the conduct of India's foreign policy.

Issues on which Indian and Chinese interests converge:

- Reform of the World Trade Organisation,

- Defence of the UN system,

- Cybersecurity,

- Climate change.

Why change in China's attitude towards India?

- Wuhan spirit initiated a new bonhomie between Xi and Modi.

- Since then, the two countries have moved ahead of bitter memories of Doklam.

- However, the biggest factor in changing China's attitude towards India is its spiraling trade war with the U.S.

- According to China, the ugly path of unilateralism and protectionism has now affected the growth and stability of the world economy. This shows its concern and desperation towards multilateralism and globalisation, due to which it has become the global workshop of the world.

However, there are still some challenges which needs to be addressed to improve the relationship:

- Border dispute

- Huge Trade deficit

Way Ahead:

- Although, China had increased imports of Indian rice and sugar, along with stepping up the review and approval process for Indian pharmaceutical products, for addressing Indian concerns on the issue of yawning trade gap. But clearly more needs to be done to address the deficit lest it spirals into other domains affecting the bilateral relationship.

4. Code on Occupational Safety, Health (OSH) and Working Conditions Bill, 2019

Context

- The Union Cabinet has approved a Bill that seeks to merge 13 labour laws into one code on occupational safety, health and working conditions that would apply to all establishments with 10 or more workers

Details

- As per the OSH Code, every unit employing 10 or more employees shall have to register such establishment.

- Every employer will have to ensure that the workplace is free from hazards that cause or are likely to cause injury or occupational disease to the employees, and shall comply with the Occupational Safety and Health standards made under this Code and of the regulations, rules, bye-laws and orders made thereunder.

- Every employer shall ensure the periodical medical examination and prescribed tests of the employees in the manner prescribed.

    * The code makes it mandatory for employers to provide free annual medical check-ups

- Women are permitted to work beyond 7 p.m. and before 6 a.m. subject to the safety, holidays, working hours or any other condition as prescribed by appropriate government in respect of prescribed establishments. However, only after taking their consent for night work

National Occupational Safety and Health Advisory Board

- The Central government shall, by notification, constitute the National Occupational Safety and Health Advisory Board to advise it on the matters relating to standards, rules and regulations to be framed under the Code.

Scope of the Bill

- The code will be applicable to all trades, including IT establishments and service sector, where more than 10 workers are employed, it will be applicable to mines and docks that employ even one worker.

Code on Wages Bill

Context

- The Union Cabinet approved the Code on Wages Bill, which subsumes existing laws regarding minimum wages and other workers' remuneration issues as part of the government's efforts to improve ease of doing business.

Details

- It seeks to include more workers under the purview of minimum wages and proposes a statutory national minimum wage for different geographic regions, to ensure that States will not fix minimum wages below those set by the Centre.

5. **Consumer Protection Bill, 2019**

Context

- The Parliament gave its nod to the landmark Consumer Protection Bill, 2019

- The bill seeks to strengthen the rights of consumers and provides a mechanism for redressal of complaints regarding defects in goods and deficiency in services.

Features

- A consumer is defined as a person who buys any good or avails a service for a consideration.

  * It does not include a person who obtains a good for resale or a good or service for commercial purpose.

  * It covers transactions through all modes including offline, and online through electronic means, teleshopping, multi-level marketing or direct selling.

- It aims to protect the rights of consumers by establishing authorities for timely and effective administration and settlement of consumers' dispute.

- The Bill will replace the more than three decades old Consumer Protection Act, 1986.

- The Bill also envisages simplified dispute resolution process, has provision for Mediation and e-filing of cases.

- The Bill also enables regulations to be notified on E-commerce and direct selling with focus on protection of interest of consumers.

Central Consumer Protection Authority (CCPA)

- Under the Bill, there is provision for central government to set up a CCPA to promote, protect and enforce the rights of consumers and will be empowered to investigate, recall, refund and impose penalties.

- It will regulate matters related to violation of consumer rights, unfair trade practices, and misleading advertisements.

Product liability:

- Product liability means the liability of a product manufacturer, service provider or seller to compensate a consumer for any harm or injury caused by a defective good or deficient service.

- To claim compensation, a consumer has to prove any one of the conditions for defect or deficiency, as given in the Bill.

Consumer Disputes Redressal Commissions (CDRCs)

- It will be set up at the district, state, and national levels. A consumer can file a complaint with CDRCs in relation to:

  * unfair or restrictive trade practices;

  * defective goods or services;

  * overcharging or deceptive charging; and

  * The offering of goods or services for sale which may be hazardous to life and safety.

- Complaints against an unfair contract can be filed with only the State and National   Appeals from a District CDRC will be heard by the State CDRC. Appeals from the State CDRC will be heard by the National CDRC. Final appeal will lie before the Supreme Court.

- Jurisdiction of CDRCs: The District CDRC will entertain complaints where value of goods and services does not exceed Rs one crore.

  * The State CDRC will entertain complaints when the value is more than Rs one crore but does not exceed Rs 10 crore.

  * Complaints with value of goods and services over Rs 10 crore will be entertained by the National CDRC.

Penalties for misleading advertisement:

- The CCPA may impose a penalty on a manufacturer or an endorser of up to Rs 10 lakh and imprisonment for up to two years for a false or misleading advertisement.

  * In case of a subsequent offence, the fine may extend to Rs 50 lakh and imprisonment of up to five years.

- CCPA can also prohibit the endorser of a misleading advertisement from endorsing that particular product or service for a period of up to one year.

- For every subsequent offence, the period of prohibition may extend to three years. However, there are certain exceptions when an endorser will not be held liable for such a penalty.

Merits

- It would ease the overall process of consumer grievance Redressal.

- The bill will provide a better mechanism to dispose consumer complaints in a speedy manner and will help in disposal of large number of pending cases in consumer courts across the nation.

- Deterrent punishment to check misleading advertisements and adulteration of products

- Product liability provision to deter manufacturers and service providers from delivering defective products or deficient services

- Ease of approaching Consumer Commission and Simplification of Adjudication process

- Provision for rules for new age consumer issues: e-commerce & direct selling.

Conclusion

- With the passage of the Consumer Protection Bill, consumer rights are set to receive a massive boost.

- The new regulations put more responsibility on companies for misleading advertising and faulty products

6. Credit Cards for Fishermen

Context

- The Government of India has extended the facility of Kisan Credit Card (KCC) to fisheries and animal husbandry farmers to help them meet their working capital needs.

About the initiative

- The KCC facility will help fisheries and animal husbandry farmers to meet their short term credit requirements of rearing of animals, poultry birds, fish, shrimp, other aquatic organisms and capture of fish.

The criteria for eligible beneficiaries under Kisan Credit Card (KCC) for Animal Husbandry and Fisheries is as follows:

Inland Fisheries and Aquaculture:

- Fishers, Fish Farmers (individual & groups/partners/ share croppers/tenant farmers), Self Help Groups, Joint Liability Groups and Woman groups.
- The beneficiaries must own or lease any of the fisheries related activities such as pond, tank, open water bodies, raceway, hatchery, rearing unit, possess necessary license for fish farming and fishing related activities, and any other State specific fisheries and allied activities.

Marine Fisheries

- Beneficiaries as listed at 1.1 above who own or lease registered fishing vessel, boat, possess necessary fishing license/permission for fishing in estuary and sea, fish farming/ mariculture activities in estuaries and open sea and any other State specific fisheries and allied activities

Poultry and small ruminant

- Farmers, poultry farmers either individuals or joint borrower, Joint Liability Groups or Self Help Groups including tenant farmers of sheep/goats/pigs/ poultry/birds/rabbit and having owned/rented/ leased sheds.

Dairy

- Farmers and Dairy farmers either individuals or joint borrower, Joint Liability Groups or Self Help Groups including tenant farmers having owned/rented/ leased sheds.

7. Ethanol bio refinery to come up in Vidarbha

Context

- Bharat Petroleum Corporation Limited (BPCL) will set up Maharashtra's first ever ethanol bio refinery in Vidarbha's Bhandara district at a cost of nearly ₹1,500 crore.

Details

- The plant will manufacture ethanol from rice straw and will be set up on 46 hectares of land that is currently with the Revenue Department

- Bhandara and Gondia districts annually produce 3.62 lakh and 3.87 lakh rice straw annually.
- The project will utilise 2 lakh tonne of rice straw annually and has a capacity to produce 700 tonne of biofuel.
- The rice straw will be collected, chopped and dried and then supplied to the refinery.

National Policy on Biofuels, 2018

- It aims to increase the percentage of ethanol in petrol and diesel. Currently, it is at nearly 2% in petrol, while in diesel, biofuel is less than 0.1%.
- An indicative target of 20% of ethanol in petrol and 5% of biodiesel in diesel is proposed by 2030.

Significance

- This project is likely to create around 10,000 jobs directly or indirectly in Plant Operations, Village Level Entrepreneurs and Supply Chain Management.
- Reduce Import Dependency which will result in savings of crores of forex
- Cleaner Environment: By reducing crop burning & conversion of agricultural residues/wastes to biofuels there will be further reduction in Green House Gas emissions.
- Additional Income to Farmers: By adopting to this agricultural residues/waste which otherwise are burnt by the farmers can be converted to ethanol and can fetch a price for these waste if a market is developed for the same

8. From baby steps to giant strides, GST gains momentum

Context

- Government along with partners from the trade and industry is celebrating the 2nd Anniversary of GST on 1st July 2019.

Details:

- The historical goods and services tax (GST) was implemented across India from July 1, 2017.
- India was not new to indirect tax levies, but consolidating Central and State levies and achieving uniformity was not easy.

How did the industry benefit?

- The industry embraced and loved the GST for harmonising taxes, elimination of cascading effect of tax, widening the scope of input tax credit and for achieving a uniform tax rate for a product or service across the country.
- Tangible benefits includes faster refunds, less interaction with tax authorities, abolition of checkposts, etc.
- There are other intangible benefits on account of GST.
  * In the past, a manufacturer in State A would lose a customer in State B if he made a CST supply.

* To prevent the loss, the manufacturer would open a depot in order to effect a local supply in State B.

* The depot was not a business requirement, but one of tax.

* Under GST, a supplier can supply goods from any part of India and tax or input tax credit is no longer an arbitrage in competition.

* The customer is now in a position to source from any supplier and the latter is in a position to access markets across India.

- Industry gains include elimination or dismantling of structures created under the pre-GST era for tax purposes, supply-chain efficiencies, direct customer access, and a robust transparent trail for the movement of goods.

- However, there are a few concerns:

  * The industry is extremely unhappy with the massive increase in compliance requirements, frequent battles with the GST portal, wastage of man hours in dealing with technical glitches, and facing potential loss of ITC on account of supplier facing similar problems.

  * The industry is also not happy with frequent changes in law, including scenarios where the portal does not permit what the law permits.

How has the government benefitted?

- Monthly revenue from GST has crossed ₹1,00,000 crore, even though the GDP growth is low and the economy is witnessing a slump.

- GST has resulted in the widening of the tax base.

- Excellent data mining has resulted in identification of tax evasion at an early stage.

- E-way bill system has brought in an effective, transparent movement trail.

- Higher tax collections even without intervention indicates compliance.

- With more and more vendors and service providers walking into GST, the formalisation of economy has taken place.

- The walk-in is voluntary and sometimes compelled by the bigger player, who prefers only registered compliant suppliers.

- The natural corollary would be the increase in direct tax collections from these new assessees.

- Many manufacturing states had anticipated huge losses on account of GST compared to their pre-GST collections.

- This has not happened probably due to significant consumption of services in such manufacturing States.

- Unlike many other countries which faced massive inflation on account of introduction of GST, India did not face any inflation. This was probably due to an effective rate of tax policy, as well as timely course correction.

- However, there are a few concerns:

  * The government, is extremely unhappy with the fake invoice racket. These players provide a disservice to the economy and also to honest tax payers.

  * While action against fake invoice racket is welcome, the government should pursue the route of adjudication, prosecution and early conviction instead of the threat of non-bailable arrest provisions which have a potential for misuse.

  * The National Anti-Profiteering Authority had also played a role, but has outlived its objective. There was no necessity for a two-year extension.

How has the consumer benefitted?

- The consumer has gained the most in GST.

- From an era of cascading taxes, which had nearly 30% of taxes on goods; dual and multiple levies on services, the consumer is now seeing massive reduction in the rate of tax for goods and services.

- For instance, In a typical restaurant, the customer is enjoying a flat 5% which is lower than the VAT rates applicable in many countries in the European Union.

- Awareness of GST among consumers is at an all-time high.

- Concerns:

  * However, the downside is tax evasion, which is now driven by consumers.

  * In the past, when a customer procured goods or services, he was least bothered about the tax rate since excise duty was invisible. The VAT rate was low and was not a significant deterrent.

  * When the overall indirect tax levy was 30%, it was not reflected in the invoice, but when the rate has declined to 12% and 18%, awareness about GST makes the customer assume it is a new levy which affects his pocket, and the consumer opens the cash channel.

Other Concerns:

- GST law has turned out to be the most complex one on account of design faults and frequent tinkering.

- The distinction between goods and services manifests itself in GST in multiple segments.

- The Advance Ruling mechanism has failed since most rulings are in favour of the revenue and in some cases, against the provisions of the statute.

- The constitution of the AAR is the issue, since it is not presided by a judicial member and comprises sitting officers of the tax department.

Conclusion:

- The GST Council has played a stellar role in cooperative federalism since 35 meetings have taken place, where resolutions have been passed unanimously despite political differences.

- This kind of unanimity is unseen even in flat association meetings.

- In only two years of existence, 32 amendments to the CGST Act; 31 amendments to the CGST Rules; 87 CGST rate Notifications; 179 CGST non-rate Notifications; 90 IGST rate Notifications; 19 IGST non-rate Notifications; 101 Board Circulars; 10 Removal of Difficulty Orders; matching Notifications from 29 States, do not indicate a simple law.

- In the third year of the GST regime, addressing procedural complexities of the GST portal system, implementation concerns and making compliance easier will further accelerate ease of doing business for industry in India.

9. Global Innovation Index (GII)

- It is published by Cornell University, INSEAD, and the World Intellectual Property Organization, in partnership with other organizations and institutions.

- The GII was published for the first time in 2007. The Index is published annually ever since.

- Providing 80 detailed metrics for 129 economies, the GII has become one of the leading references for measuring an economy's innovation performance.

- It has established itself as both a leading reference on innovation and a 'tool for action' for policy makers

2019

India's performance

- India is now ranked 52nd on the Global Innovation Index (GII) 2019, a jump of 5 places over last year, and 29 places in the last five years - up from 81 in 2015

- India, whose 29-place move up the GII (From 81 in 2015) represents the biggest jump by any major economy, also remains 2nd among middle-income economies in terms of the quality of innovation.

- India continues to be the most innovative economy in central and southern Asia — a distinction held since 2011.

- India is consistently among the top in the world in innovation drivers such as ICT services exports, graduates in science and engineering, the quality of universities, gross capital formation — a measure of economy-wide investments — and creative goods exports.

- The report also highlighted that India stands out in the world's top science and technology clusters, with Bengaluru, Mumbai, and New Delhi featuring among the top 100 global clusters.

Ranking of other Countries

- The list continues to be topped by Switzerland while Israel finds its place in the top ten for the first time.

10. Green shoots of economic growth

Context

- India is aspiring to achieve a \$5-trillion economy by 2024 and this vision has been envisaged in the Economic Survey this year.

- The document lays down a clear strategy to augment the growth of key sectors by shifting gears as the current economic conditions are smooth in terms of macroeconomic stability to expand growth.

However, unless there are adequate investment reforms in primary sectors, steps taken to augment growth in other sectors would be futile.

Investment is the key

- According to the Food and Agriculture Organisation (FAO), insufficient investment in the agriculture sector in most developing countries over the past 30 years has resulted in low productivity and stagnant production.

- In India, with a steadily decreasing share of 14.4% in Gross Value Added since 2015-16, the sector's contribution to a \$5-trillion economy would be around \$1 trillion — assuming a positive annual growth rate hereafter.

- Investment is the key to unlocking the potential of a developing economy. However, the myopic policy regime in the past several decades has resulted in sluggish investment growth in the farm sector. Therefore, strengthening the sector with an enabling investment package (both public and private) is critical.

Focus Areas

- First, the wave of investment should touch segments such as agro-processing, and exports, agri-startups and agri-tourism, where the potential for job creation and capacity utilisation is far less.

  * Integrating the existing tourism circuit with a relatively new area of agri-tourism (as a hub-and-spoke model), where glimpses of farm staff and farm operations are displayed to attract tourists, would help in boosting the investment cycle and generate in-situ employment.

- Second, investment needs to be driven to strengthen both public and private extension advisory systems and the quality of agri-education and research through collaboration and convergence.

  * It would also serve as a stage to demonstrate resource conservation and sustainable use through organic, natural and green methods, and also zero budget natural farming.

- Third, given that India has the highest livestock population in the world, investment should be made to utilise this surplus by employing next-generation livestock technology with a strong emphasis not only on productivity enhancement but also on conservation of indigenous germplasm, disease surveillance, quality control, waste utilisation and value addition.
    * This would lead to a sustained increase in farm income and savings with an export-oriented growth model.
- Fourth, investment in renewable energy generation (using small wind mill and solar pumps) on fallow farmland and in hilly terrain would help reduce the burden of debt-ridden electricity distribution companies and State governments, besides enabling energy security in rural areas.
- Fifth, a farm business organisation is another source of routing private investment to agriculture. Linking these organisations with commodity exchanges would provide agriculture commodities more space on international trading platforms and reduce the burden of markets in a glut season, with certain policy/procedural modifications.
- Finally, data is the key driver of modern agriculture which in turn can power artificial intelligence-led agriculture, e-markets, soil mapping and others. Currently, there are issues of enumeration, maintenance and accessibility to help maintain agri-data on various fronts.
    * There also needs to be a centralised institutional mechanism to help maintain farm level-data available for real time (virtual) assessment, while also helping plug the loopholes in subsidy distribution, funding and unrealistic assumption in production estimation.
    * This will help in effectively implementing and monitoring various schemes for a pragmatic food system.

Trickle-down effect

- Though economic transition has seen significant growth contribution from services and industry, agriculture remains the most trusted sector in helping alleviate poverty, hunger and malnutrition and ensuring better income distribution.
- An earlier experience of BRIC (Brazil, Russia, India and China) nations has shown that a 1% growth in agriculture is at least two to three times more effective in reducing poverty than similar growth in non-agricultural sectors.
- Public investment in agriculture research and development in terms of percentage share in agri GVA stands at 0.37%, which is fairly low in comparison to between 3% and 5% in developed countries.

Way forward

- In real terms, the current investment should create an enabling environment to route private investment in R&D.
- Therefore, public investment in agriculture should see a commensurate rise with a healthy mix of education, research and extension encouraging 'blue-sky thinking' in all segments, while pushing for a targeted pruning of public expenditures on subsidies, kind transfers, loan waivers and populist measures.
- An inclusive business model facilitating strong investor-farmer relations should be created, with a legal and institutional framework for governance. Expanding institutions is essential to accommodate the developmental impacts of foreign agricultural investment.

11. Group Workshed Scheme for Powerloom Sector

Context

- The Government is implementing Group Work shed Scheme for Power loom sector under Power Tex India which is in operation since 2017 on pan India basis.

Objective:

- To establish Group Work sheds for installation of modern looms in an existing or new cluster, which will provide required scale of economies for business operations and to organize power loom units in a cluster and to provide improved working condition in terms of more space, work environment, improve the work efficiency to enhance their competitiveness in the global market.

Details

- Eligible beneficiaries would include weaver(s) and entrepreneur(s) associated with power loom units, including master weaver(s), registered co-operative societies of power loom weavers or any new entrepreneur(s) individually or in-group.
- Power loom unit would include weaving preparatory such as Warping, Sizing, Twisting (Two-for-one Twister and Three-for-one Twister), Texturising, Testing Laboratory and Common Facilities such as Sample Display room including stand-alone unit.

12. India International Cooperatives Trade Fair (IICTF)

Context

- The First Ever India International Cooperatives Trade Fair (IICTF) is going to be held at PragatiMaidan, New Delhi

Details

- It is a unique initiative for taking farmers, artisans & other members of cooperatives directly to the global trade arena
- Aligning with the Agriculture Export Policy 2018 which aims at doubling the agriculture export and integrating Indian farmers and agriculture products with global value chains

Significance

- The Trade Fair is aimed at promoting cooperative to cooperative trade within India and abroad leading to enhanced rural and farm prosperity.

- The fair will be packed with conferences, exhibitions, B2B meetings, C2C meetings, sales promotion, marketing and products display business, networking, policy advocacy etc., providing an immense opportunity to the participants to collaborate and explore business opportunities with the Cooperative Organisations from India and abroad.

13. India, China to overtake U.S. in tech innovation: survey

Context:

- According to Bloomberg New Economy Global Survey, India and China will surpass the U.S. as the World's Centers of Tech Innovation by 2035.

Details:

- The findings are based on the views of 2,000 business professionals in 20 markets.

- Indian respondents are particularly confident in China and India's future role as global innovation centers — with 64% of those surveyed agreeing the countries will surpass the U.S. by 2035.

- Respondents also expressed strong enthusiasm for self-driving cars, with 65% agreeing they will dominate the future automobile market.

- Overall, data shows that business professionals in emerging countries are more optimistic than those in developed markets about change, and have markedly higher expectations for the role that technology will play in the economy, business and daily life in decades to come.

- Developing countries, in general, see technology more as an opportunity while the developed world has a greater sense of technology as a threat.

Issues:

- The majority of business professionals across the world agree that by 2035, we will be reaching the point of no return on climate change.

- There is strong global consensus that if there is another world war, then it is likely to be a cyber war.

- Most global business professionals also agree that rising sea levels will have already wiped the first low-lying country off the map by 2035.

- There are fears that Artificial Intelligence will destroy manual jobs. However, a majority around the world believe that lifelong learning can mitigate the threat.

14. Insolvency and Bankruptcy Code (Amendment) Act, 2019

Context

- The new code brings changes to the Insolvency and Bankruptcy Code (IBC), 2016

- The amendments are aimed at filling a critical gap in the corporate insolvency resolution framework while at the same time maximizing value from the resolution process.

Initiation of resolution process:

- Under the earlier Code, the NCLT must determine the existence of default within 14 days of receiving a resolution application. Based on its finding, NCLT may accept or reject the application.

- The Amendment clarifies that in case the NCLT does not find the existence of default and has not passed an order within 14 days, it must record its reasons in writing.

  * The approved resolution plan will be binding on the state, central govt and local authorities

Clarity on allowing comprehensive corporate restructuring through merger, amalgamation and demerger under a resolution plan

- Under the earlier Code, it was unclear whether resolution plans could include restructuring provisions such as mergers, demergers or amalgamations. The market practice was to utilize these modes of corporate restructuring in various permutations and combinations.

- The Amendment clarifies that a 'resolution plan' may include provisions for restructuring by way of merger, amalgamation, and demerger. This clarification can be seen as legitimising existing practices being used to arrive at a commercial resolution.

Timeline for completion of Corporate Insolvency Resolution Processes (CIRP) increased to an overall limit of 330 days

- Prior to the Amendment, the Code required that the CIRP should be concluded within a maximum period of 180 days (with a maximum one-time extension of 90 days) from the insolvency commencement date (the Code denotes this to be the date of appointment of interim resolution professional).

  * However, many CIRPs were exceeding this overall 270-day limit on account of legal proceedings initiated either against the corporate debtor, the CoC or the Resolution Professional.

- The Amendment provides that the CIRP must mandatorily be completed within an overall timeline of 330 days from the insolvency commencement date (including all or any extensions granted as well as any litigations and related legal proceedings)

Representative of financial creditors:

- The Earlier Code specifies that, in certain cases, such as when the debt is owed to a class of creditors beyond a specified number, 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 instructions received from them.

• The Amendment states that such representative will vote on the basis of the decision taken by a majority of the voting share of the creditors that they represent.

Significance

• The new law aims to provide greater clarity on the permissibility of corporate restructuring schemes, rights and duties of authorized representatives of voters, manner of distribution of amounts among financial and operational creditors and the applicability of the resolution plan on all statutory authorities.

15. Locusts

Context

• There has been an incursion of desert locusts in Rajasthan and Gujarat from areas bordering Pakistan.

Details

• Locusts are certain species of short-horned grasshoppers

• They are locally known as tidda or tiddi

• Locusts are usually solitary but are known to become swarms as their population increases under suitable conditions of a dry phase followed by rapid vegetation growth.

• The arrival of monsoon into the northwest parts of the country during the first week of July has likely triggered the onslaught of locusts in the region.

• The locust swarms have severely affected the Banaskantha district in Gujarat and Barmer district in Rajasthan this month. Even in Pakistan, the outbreak has threatened its main cash crop, cotton.

Breeding Season:

• In all, there are three breeding seasons for locusts (i) Winter breeding [November to December], (ii) Spring breeding [January to June] and (iii) Summer breeding [July to October].

• India has only one locust breeding season and that is Summer breeding. The neighboring country Pakistan has both spring and summer breeding

Issues

• Wheat, rice and some of the cash crops grown extensively around Delhi may face the risk of locust invasion

How to control them?

• In India, the scheme Locust Control and Research (LC&R) is responsible for control of Desert Locust and is being implemented through Organisation known as "Locust Warning Organisation (LWO)" established in 1939 and later amalgamated with the Directorate of Plant Protection Quarantine and Storage of the Ministry of Agriculture in 1946.

• LWO is responsible to monitor and control the locust situation in Scheduled Desert Area (SDA) mainly in the States of Rajasthan and Gujarat while partly in the States of Punjab and Haryana by way of intensive survey , surveillance, monitoring and control operations where required.

• The LWO publishes a fortnightly bulletin on the locust situation.

16. Merchant Discount Rate

• Merchant Discount Rate (alternatively referred to as the Transaction Discount Rate or TDR) is the sum total of all the charges and taxes that a digital payment entails.

• For instance, the MDR includes bank charges, which a bank charges customers and merchants for allowing payments to be made digitally.

• Similarly, MDR also includes the processing charges that a payments aggregator has to pay to online or mobile wallets or indeed to banks for their service.

What was the Budget announcement?

In her speech, Finance Minister Nirmala Sitharaman announced a slew of steps aimed at promoting digital payments and a less-cash economy.

• In particular, she said, "…there are low-cost digital modes of payment such as BHIM UPI, UPI-QR Code, Aadhaar Pay, certain Debit cards, NEFT, RTGS etc. which can be used to promote less cash economy. I, therefore, propose that the business establishments with annual turnover more than 50 crore shall offer such low cost digital modes of payment to their customers and no charges or Merchant Discount Rate shall be imposed on customers as well as merchants."

• In other words, the government has mandated that neither the customers nor the merchants will have to pay the so-called Merchant Discount Rate (or MDR) while transacting digital payments.

• Of course, it is good news for both customers and merchants because their costs of digital payments come down.

Who will bear the MDR costs?

• If customers don't pay and merchants don't pay, some entity has to pay for the MDR costs.

• In her speech, the FM has said: "RBI and Banks will absorb these costs from the savings that will accrue to them on account of handling less cash as people move to these digital modes of payment…Necessary amendments are being made in the Income Tax Act and the Payments and Settlement Systems Act, 2007 to give effect to these provisions."

Concerns

- MDR is a charge a merchant pays to a bank for accepting customer payments through debit or credit cards, BHIM/UPI/Aadhaar-Pay payment ecosystem, when any payment is made at a merchant Point of Sale (POS) machine or QR "scan & pay" systems or an online mode of payment.

- A percentage of the transaction amount is then split between the stakeholders.

- The primary fear among industry players is that banks that have been asked to bear the cost might try to recover from non-bank payment providers and fintech companies.

- The card issuing banks, payment service providers, and the whole ecosystem should be able to find value in acquisition and payments. However, zero MDR will make the acquiring industry collapse, fears Payments Council of India (PCI).

- Non-Bank payment service providers (PSPs) like aggregators/ processors are a significant part of the ecosystem. If there is no commercial model, they will be forced to shut down. Banks may have multiple ways to recover money from the merchants, but non-bank players do not have any other avenue than the MDR. These PSPs are employing at least over a several lakh jobs, and in the absence of revenue, there will be survival issues and the industry will eventually collapse

17. New Delhi International Arbitration Centre Bill, 2019

Context

- Lok Sabha passed the New Delhi International Arbitration Centre Bill, 2019 by voice vote.

New Delhi International Arbitration Centre (NDIAC)

- The Bill seeks to provide for the establishment of the NDIAC to conduct arbitration, mediation, and conciliation proceedings.

- The legislation has provision to declare the NDIAC as an institution of national importance for its overall development as a major arbitration hub by promoting quick and efficient dispute resolution mechanism.

Objectives and functions of the NDIAC:

The key objectives of the NDIAC include

- promoting research, providing training and organising conferences and seminars in alternative dispute resolution matters;

- providing facilities and administrative assistance for the conduct of arbitration, mediation and conciliation proceedings;

- Maintaining a panel of accredited professionals to conduct arbitration, mediation and conciliation proceedings.

- facilitating conduct of arbitration and conciliation in a professional, timely and cost-effective manner;

- Promoting studies in the field of alternative dispute resolution.

Composition

Under the Bill, the NDIAC will consist of seven members including:

- a Chairperson who may be a Judge of the Supreme Court or a High Court, or an eminent person with special knowledge and experience in the conduct or administration of arbitration;

- two eminent persons having substantial knowledge and experience in institutional arbitration;

- three ex-officio members, including a nominee from the Ministry of Finance and a Chief Executive Officer (responsible for the day-to-day administration of the NDIAC); and

- a representative from a recognised body of commerce and industry, appointed as a part-time member, on a rotational basis.

18. Odisha is origin of Rasagola

Context

- The rasagola, a popular dessert of Odisha, has received the geographical indication tag from the Registrar of Geographical Indication after years of controversy around the sweet.

What was the controversy?

- Both Odisha and West Bengal have been contesting the origin of the rasagola.

- In November 2017, West Bengal was granted the GI tag for its own 'Banglara Rasgulla' which led people to erroneously believe that the GI Registry recognised Bengal as its place of origin, which is factually incorrect.

- Bengalis claim that the Rasgulla was invented in the 19th century by Nobin Chandra Das at his Bagbazar residence in Kolkata, while Odias believe that the tradition of Niladri Bije where Rasgulla is offered started in the 12th century.

- In 2015, the Odisha government had formed three committees to identify the origin of the Rasgulla and study its background

- Historical records submitted say the 'Odisha Rasagola' is associated with world famous Puri Jagannath Temple.

- The GI tag for Bengal and Odisha Rasagullas recognise two distinct versions of the sweet.

Details:

- The Odisha government had filed for geographical recognition of the 'Odishara Rasagulla' with the GI Registry in Chennai last year.

  * According to the application submitted to the Registrar of GI, 'Odisha Rasagola' is a sweet from the state of Odisha made of chhena (cottage cheese) cooked in sugar syrup, which is very soft to feel, is juicy and non- chewy in consistency and can be swallowed without teeth pressure.

* Colour development of the 'Odisha Rasagola' is very specific, where without addition of external colour, various intensely-coloured rasagolas are prepared using the principle of caramelisation of sugar with specific methods of preparation, the application said.

* The area of production of Odisha Rasagola has been shown all 30 districts.

- The sweet has been registered under GI of Goods (Registration and Protection) Act, 2019 as 'Odisha Rasagola'.

- The GI number 612 has been registered in favour of the Odisha Small Industries Corporation Limited (OSIC Limited), a government of Odisha undertaking and Utkal Mistanna Byabasayee Samiti, a traders' organisation, in the foodstuff category.

- The first Odia product to receive a GI tag was Kandhamal Haldi, a type of turmeric produced by tribal farmers in the state's Kandhamal district.

19. Overestimation of India's GDP growth

Context

- Reports have appeared in a section of media citing Dr Arvind Subramanian as regards overestimation of India's GDP growth. According to former Chief Economic Adviser Arvind Subramanian's research paper, the GDP growth was actually only 4.5%, as against the reported growth of 7%.

How did this happen?

From 2011-12, India changed the methodology and data sources used to estimate real GDP of the country.

- Earlier, while data was derived from the factory level,

  * It was changed to 5 lakh companies registered with Ministry of Corporate Affairs (MCA).

- Apart from that, while GDP measurement was calculated via factor costs,

  * It was changed to calculating via market costs.

- What this means is that while earlier GDP was measured based on cost of production that producers or service providers incur after removing the effect of indirect taxes or subsidies,

  * It was shifted to calculating by measuring the actual expenditure incurred by consumers including any subsidies such as food and petrol provided to them.

Regarding GDP estimation

- The Ministry of Statistics and Program Implementation has released details from time to time to explain the complexities involved in GDP compilation.

- The estimation of GDP in any economy is a complex exercise where several measures and metrics are evolved to better measure the performance of the economy

- For the purpose of global standardization and comparability, countries follow the System of National Accounts evolved in the UN after elaborate consultation.

- The System of National Accounts 2008 (2008 SNA) is the latest version of the international statistical standard for the national accounts, adopted by the United Nations Statistical Commission (UNSC)

- The Inter-Secretariat Working Group on National Accounts (ISWGNA) was mandated to develop the 2008 SNA through intense discussions and consultation with member countries.

Challenges to comply with SNA

- As with any international standard, the data requirements are immense and diverse economies like India take time to evolve the relevant data sources before they can be fully aligned with the SNA requirements.

- In absence of data, alternate proxy sources or statistical surveys are used to estimate the contribution of various sectors to the GDP/GVA.

Base Year Revision

- The SNA also prescribes that the base year of the estimates may be revised at periodic intervals so that changes in the economic environment, advances in methodological research and the needs of users are appropriately captured.

- With structural changes taking place in the economy, it is necessary to revise the base year of macroeconomic indicators like

  * Gross Domestic Product (GDP),

  * Index of Industrial Production (IIP),

  * Consumer Price Index (CPI) etc,

  * Periodically to ensure that indicators remain relevant and reflect the structural changes more realistically.

- Such revisions not only use latest data from censuses and surveys, they also incorporate information from administrative data that have become more robust over time.

- In India, the Base Year of the GDP Series was revised from 2004-05 to 2011-12 and released on 30 January, 2015 after adaptation of the sources and methods in line with the SNA 2008.

Accuracy of national accounts estimates

- According to the World Bank, the accuracy of national accounts estimates and their comparability across countries depend on timely revisions to data on GDP and its components.

- The frequency of revisions to GDP data across countries varies between monthly, quarterly, annually or even less frequently.

- The International Monetary Fund (IMF), through its technical missions also reviews the implementation of recommendations of SNA and provides necessary technical support

- With any Base Revision, as new and more regular data sources become available, it is important to note that a comparison of the old and new series are not amenable to simplistic macro-econometric modelling.

- It may also be seen that the GDP growth projections brought out by various national and international agencies are broadly in line with the estimates released by MOSPI.

- The GDP estimates released by the Ministry are based on accepted procedures, methodologies and available data and objectively measure the contribution of various sectors in the economy.

20. Plan Bee

Background

- According to the Wildlife Trust of India, train collisions have killed 266 elephants from 1987 to 2017.

- The collisions seem to occur where there is a high elephant habitat, or places termed 'elephant corridors'.

- There are about 20 spots where the rail track crosses such elephant corridors in India.

To prevent collision of elephants with trains in future, the Northeast Frontier Railway (NFR) adopted 'Plan Bee'

Details:

- It uses a device costing about Rs 2,000 which will be installed at level crossings at these accident prone areas.

- The device works by loudly broadcasting the buzz of swarming honeybees, audible up to 600 meters, a sound that would keep the elephants away.

- This is because the elephants have a natural fear of the perilous stings of the insects.

21. Pradhan Mantri Laghu Vyapari Maan-dhan Yojana

- It is a pension scheme for small traders initiated by labour Ministry

- Under the scheme, those who are self-employed and working as shop-owners, retail traders, rice mill owners, oil mill owners, workshop owners, commission agents, real estate brokers, small hotel owners, restaurant owners and other small traders will be eligible for pension.

- The operations of such small traders are generally characterised by family-owned establishments, small scale of operations, labour intensive, inadequate financial aid, seasonal in nature and extensive unpaid family labour

- Small traders between 18 and 40 years of age, having an annual turnover of less than ₹1.5 crore would qualify to apply for the scheme.

- To be eligible, the applicants should not be covered under the National Pension Scheme, Employees' State Insurance Scheme and the Employees' Provident Fund or be an Income Tax assessee.

- Applicants would be able to apply through the 3.5 lakh common service centres, which were set up for the government's other pension schemes including the one for unorganised workers.

Pension Amount

- The scheme gives the subscribers ₹3,000 a month after they turn 60, once they have contributed to the scheme every month from the time of enrolment and till that age.

- The government would match the monthly contribution, an amount that would depend on the age at which the applicant enters the scheme.

  * For example, an 18-year-old would have to pay ₹55 a month, while a 40-year-old would need to pay ₹200 a month.

- The Life Insurance Corporation of India has been chosen as pension fund manager responsible for managing the pension fund, central record keeping agency and responsible for pension pay ou

22. Privatisation of Indian Railways

Context

- Railway Minister Piyush Goyal rejected opposition's allegation that the government is working to privatise the national transporter, but said the ministry will invite investments for new technology, lines and projects in national interest.

Tejas Express

- The Delhi-Lucknow Tejas Express is set to be the first train to be operated by private players

- It will be handed over to private players after an open bidding process for operationalisation.

Bibek Debroy Committee

- The key lesson from the UK is to retain the rail-track and infrastructure as a publicly-owned monopoly, while opening up rolling stock operations for passengers and freight to the private sector

- Thus, he recommends following the key features of various international models with focus on the British experiment to achieve two main aims: changing the institutional structure between the government and the Indian Railways and increasing competition.

- Ultimately, it suggests unbundling Indian Railways into two independent organisations: one responsible for the track and infrastructure and another that will operate trains.

Advantages

- Improved Infrastructure - A strong argument in favour of privatization is that it will lead to better infrastructure which in turn would lead to improved amenities for travelers. As opposed to mismanagement in form of putrid washrooms, lack of water supply and dirty platforms, it is expected that a private company will ensure better amenities.

- Lesser Accidents – Any train-related mishap is like a nightmare come true for travelers and authorities alike courtesy of the physical, mental and financial trauma that ensues.
    * Because private ownership is synonymous with better maintenance, supporters of privatisation feel that it will reduce the number of accidents, thus resulting in safe travel and higher monetary savings in the long run.

- It leads to simplification of cost recovery for the money spent by the government in setting up the infrastructure. It would be profitable as the government would charge the operator

Problems associated with Privatization

- Coverage Limited to Lucrative Sectors – An advantage of Indian Railways being government- owned is that it provides nation-wide connectivity irrespective of profit.
    * This would not be possible with privatisation since routes which are less popular will be eliminated, thus having a negative impact on connectivity.
    * It will also render some parts of the country virtually inaccessible and omit them from the process of development.

- Fares – Given that a private enterprise runs on profit, it is but natural to assume that the easiest way of accruing profits in Indian Railways would be to hike fares, thus rendering the service out of reach for lower income groups.
    * his will defeat the entire purpose of the system which is meant to serve the entire population of the country irrespective of the level of income

Conclusion

- High costs and lower returns, policy uncertainty, absence of a regulator to create a level playing field, the lack of incentives for investors and procedural or operational issues have significantly restricted private sector participation.

23. Scheme for Incubation in Apparel Manufacturing (SIAM)

- The objective of the Scheme is to promote entrepreneurs in apparel manufacturing by providing them an integrated workspace and linkages based entrepreneurial ecosystem with plug and play facility which help them in reducing operational and financial cost for establishing and growing a new business.

- The scheme envisages promoting entrepreneurship in apparel manufacturing, creating additional manufacturing capacity and generating additional employment opportunities.

- It was launched on a pilot basis in 2014.

- It is a demand driven scheme.

Context

- The GOI is implementing the Scheme for Incubation in Apparel Manufacturing (SIAM).

24. Silk Samagra

- It is a Central Sector Scheme Silk Samagra as part of Integrated Scheme for Development of Silk Industry (ISDSI)

- It is implemented by Government of India through Central Silk Board (CSB)

- The main aim of "Silk Samagra" Scheme is to empower downtrodden, poor & backward tribal families through various activities of sericulture in the country including women.

- The main objective of the scheme is to maintain Breeders stock, Breed improvement through R&D Projects, Development of mechanized practices, Technology translation through Sericulture Information Linkages and Knowledge System (SILKS) Portal, Mobile Application for Stakeholders and for seed quality monitoring, develop technology packages, impart training on improved technology programmes to Stakeholders, and transfer technology to the fiel through front line demonstration,

The scheme comprises four major components viz.

- Research & Development, Training, Transfer of Technology and Information Technology Initiatives,

- Seed Organizations,

- Coordination and Market Development

- Quality Certification Systems (QCS) / Export Brand Promotion and Technology Up-gradation.

25. Sovereign Bonds

What are Sovereign Bonds?

- The issuer of a bond promises to pay back a fixed amount of money every year until the expiry of the term, at which point the issuer returns the principal amount to the buyer.

- When a government issues such a bond it is called a sovereign bond.
    * These are government debt securities issued in overseas markets in foreign currency denominations such as dollars, euros and yen.

- Currently, the government of India only issues bonds

in the domestic market in rupees to finance the deficit between its expenses and revenues.

- Typically, the more financially strong a country, the more well respected is its sovereign bond. Some of the best known sovereign bonds are the Treasuries (of the United States), the Gilts (of Britain), the OATS (of France), the Bundesanleihen or Bunds (of Germany) and the JGBs (of Japan).

Context

- Finance Minister Nirmala Sitharaman has proposed to raise part of the Indian government's borrowings in the external markets in other currencies.

And what is the controversial part?

- The current controversy relates to India's sovereign bonds that will be floated in foreign countries and will be denominated in foreign currencies.
- In other words, both the initial loan amount and the final payment will be in either US dollars or some other comparable currency.
- This would differentiate these proposed bonds from either Government Securities (or G-secs, wherein the Indian government raises loans within India and in Indian rupee) or Masala bonds (wherein Indian entities — not the government — raise money overseas in rupee terms).
- The difference between issuing a bond denominated in rupees and issuing it in a foreign currency (say US dollar) is the incidence of exchange rate risk.
  - * If the loan is in terms of dollars, and the rupee weakens against the dollar during the bond's tenure, the government would have to return more rupees to pay back the same amount of dollars.
  - * If, however, the initial loan is denominated in rupee terms, then the negative fallout would be on the foreign investor

So, why is India borrowing in external markets in external currency?

- There are many reasons why. Possibly the biggest of these is that the Indian government's domestic borrowing is crowding out private investment and preventing the interest rates from falling even when inflation has cooled off and the RBI is cutting policy rates.
  - * If the government was to borrow some of its loans from outside India, there will be investable money left for private companies to borrow; not to mention that interest rates could start coming down.
  - * In fact, the significant decline in 10-year G-sec yields in the recent past is partially a result of this announcement.
  - * For fiscal year 2019-20, the government plans to borrow at least Rs 7 trillion from the Indian markets. It is believed that shifting some of this

borrowing abroad will relieve the pressure on local interest rates.

- Second at less than 5%, India's sovereign external debt to GDP is among the lowest globally. In other words, there is scope for the Indian government to raise funds this way without worrying too much about the possible negative effects.
- Thirdly, a sovereign bond issue will provide a yield curve — a benchmark — for Indian corporates who wish to raise loans in foreign markets. This will help Indian businesses that have increasingly looked towards foreign economies to borrow money.
- Fourth, this could make the Indian government more disciplined in reining in the fiscal deficit. Foreign borrowers are quick to exhibit their displeasure if things go awry (this option is not here locally since banks are mandated by law to invest a portion of their deposits in government bonds)
- Lastly, the timing is great. Globally, and especially in the advanced economies where the government is likely to go to borrow, the interest rates are low and, thanks to the easy monetary policies of foreign central banks, there are a lot of surplus funds waiting for a product that pays more.

In an ideal scenario, it could be win-win for all: Indian government raises loans at interest rates much cheaper than domestic interest rates, while foreign investors get a much higher return than is available in their own markets.

Then why are so many cautioning against this move?

- Rajan has questioned the assumption that borrowing outside would necessarily reduce the number of government bonds the domestic market will have to absorb.
  - * That's because if fresh foreign currency comes into the economy, the RBI would have to "neutralise" it by sucking the exact amount out of the money supply. This, in turn, will require selling more bonds.
  - * If the RBI doesn't do it then the excess money supply will create inflation and push up the interest rates, thus disincentivising private investents.
- The volatility in India's exchange rate is far more than the volatility in the yields of India's G-secs (the yields are the interest rate that the government pays when it borrows domestically).
  - * This means that although the government would be borrowing at "cheaper" rates than domestically, the eventual rates (after incorporating the possible weakening of rupee against the dollar) might make the deal costlier.
- India is still vulnerable to global economic risks because of the twin deficit problem. The fiscal deficit is high. While India does have a glide path to reduce

the fiscal deficit, most governments have had a tough time in sticking to this goal and have resorted to fudging numbers.

* Indeed, the gross public sector borrowing – if one includes the centre, states and government-owned enterprises – is close to 8.5 percent of GDP.

* The current account deficit is also high and could even go up further in case of an economic revival through increasing investment demand. (If investments exceed savings, it has to be financed by foreign borrowings). These are big risk factors.

- Once the tap is opened, there is a real risk that governments might get addicted to this form of funding.

* As former RBI governor YV Reddy has argued, unless a limited liability company, government debt is held in perpetuity.

* There is no write-off of government debt when times are bad. Moreover, all governments are liable to pay off debts incurred by their predecessors notwithstanding whether they were democracies or despotic regimes.

Conclusion

- In small quantities, sovereign bonds in foreign currencies won't probably be harmful. But, the big question remains whether governments will stick to these small portions and whether that is good enough to get some of the theoretical benefits.

26. Sugar Subsidies

Context

- Brazil, Australia, Guatemala have requested for a dispute settlement panel at the WTO against the sugar subsidies given by the Indian govt

Details

- Disputes are resolved either under normal track or under expedited track. In case of normal track, the country (against which the dispute has been raised) is allowed to block the request once. If the complaint is filed for the second time or other countries keep filing them then the complaint is taken up for dispute resolution mechanism

- Since the above countries have sought to take the normal course, India is likely to block the request for the appointment of the dispute resolution panel

- Australia and Brazil have claimed that most of the subsidies given to sugar producers violate the WTO and the support provided is beyond the de minimis level of 10% for sugarcane. Some of the subsidies are support provided by the govt are

* State level export subsidy for sugar

* Federal level assistance

* Export incentives (raw sugar export incentive scheme)

* Freight assistance

* Brazil has argued against Indian govt doubling the FRP (Fair and Remunerative Price) from ₹ 1390 per tonne (2010-11) to ₹ 2750 per tonne (2018-19) and against the govt's mandate that the mills are to export 5 mn tn of sugar in 2018-19

- Since the consultations have not led to any satisfactory outcome, all these countries have asked for a dispute resolution panel

India's Arguments

- Most of the subsidies given to the producers are in the form of production subsidies which are allowed under WTO

- Subsidies to exporters were for transportation and marketing purposes, which were permitted under WTO

27. Turnover Ratio

- The turnover ratio, which is a universally accepted parameter to gauge trading volumes, is the total value of the shares traded in a specific period divided by the average market capitalisation of that period.

- Turnover ratios help assess the asset efficiency of a company. They are also known as Activity Ratios and determine how effectively a firm utilises its assets to generate revenue.

Context

- As per the latest analysis by the World Bank, the turnover ratio of the Indian stock market had fallen from 143 in 2008 to 58 in 2018.

Details

- India's turnover ratio fell by nearly 60% between 2008 and 2018, as per the World Bank report, the fall had been the highest among most leading markets of the world, barring the U.S. and the European Union.

- The turnover ratio of China dipped less than 6% in the last 10 years, while Brazil and Korea registered a dip of 12.85% and 31.12%, respectively. Japan and Hong Kong saw the ratio dip between 40-50% between 2008 and 2018, as per the World Bank study.

28. United Nations Convention on International Settlement Agreements (UNISA)

Context

- India signed a key UN convention on international settlement agreements

Details

- The Convention provides a uniform and efficient framework for the enforcement of international settlement agreements resulting from mediation and for allowing parties to invoke such agreements, akin to the framework that the Convention on the Recognition and Enforcement of Foreign Arbitral Awards (New York, 1958) (the "New York Convention")

provides for arbitral awards.

- The Convention defines two additional grounds upon which a court may, on its own motion, refuse to grant relief.

- Those grounds relate to the fact that a dispute would not be capable of settlement by mediation or would be contrary to public policy.

Benefit

- Signing of the Convention will boost the confidence of the investors and shall provide a positive signal to foreign investors about India's commitment to adhere to international practice on Alternative Dispute Resolution (ADR).

Initiatives to promote ADR Mechanisms

- In order to encourage international commercial arbitration in India, to evolve a comprehensive ecosystem of arbitration the Government is establishing the New Delhi International Arbitration Centre (NDIAC) as a statutory body.

- The Commercial Courts Act, 2015, has been further amended and legislative exercise to further amend the Arbitration and Conciliation Act, 1996, is currently underway.

- These initiatives are being taken with a view to encourage the settlement of commercial disputes, domestic and international, in India through ADR Mechanism of Arbitration, Conciliation and Mediation.

- A new Chapter (IIIA) has been inserted in the Commercial Courts Act, 2015, for mandatory pre-institution mediation and settlement in certain category of cases.

- Therefore, the provisions of the 'Convention' are in line with the domestic laws and the efforts made to strengthen Alternative Dispute Resolution Mechanisms.

29. UNWFP

- The World Food Programme (WFP) is the food-assistance branch of the United Nations and the world's largest humanitarian organization addressing hunger and promoting food security.

- According to the WFP, it provides food assistance to an average of 91.4 million people in 83 countries each year.

- From its headquarters in Rome and from more than 80 country offices around the world, the WFP works to help people who cannot produce or obtain enough food for themselves and their families.

- It is a member of the United Nations Development Group and part of its executive committee.

Context

- Union Minister of Agriculture and Farmers' Welfare, launched a Coffee Table Book, to commemorate five decades of partnership between the Ministry and UNWEP in addressing food and nutritional security in India.

WFP in India

- WFP is working to improve the efficiency, accountability and transparency of India's own subsidized food distribution system, which brings supplies of wheat, rice, sugar and kerosene oil to around 800 million poor people across the country.

- WFP ensures that food reaches those who need it most, working with the Government to reform and strengthen the system, which is one of the world's largest.

- To boost the nutritional value of the Government's Midday Meal school feeding programme, WFP is pioneering the multi-micronutrient fortification of school meals.

- The pilot project saw rice fortified with iron, which was distributed in a single district, resulting in a 20 percent drop in anaemia.

- WFP also help tackle malnutrition by fortifying food given to babies and young children in the Kerala State.

- WFP uses its own Vulnerability Analysis and Mapping software to identify India's most food insecure areas, which allows policy and relief work to be targeted appropriately.

- WFP is also supporting the government's Poverty and Human Development Monitoring Agency in establishing a State-level Food Security Analysis Unit, working towards the goal of achieving Zero Hunger.

30. Utkarsh 2022

- It is a three- year roadmap to improve regulation and supervision finalised by RBI

- It is in line with the global central banks' plan to strengthen the regulatory and supervisory mechanism

- The strategic framework contains, the RBI's mission, core purpose, values and vision statements, reiterating the bank's commitment to the nation

Objectives

- Excellence in performance of statutory and Other functions

- Strengthened trust of citizens and other Institutions in the RBI

- Enhanced relevance and significance in national and global roles

- Transparent, accountable and ethics-driven internal governance

- Best-in-class and environment friendly digital as well as physical infrastructure

- Innovative, dynamic and skilled human

31. World Food India 2019

- World Food India is one of the largest food industry events in the world.

- It is held by the Ministry of Food Processing Industries (MoFPI).

- The event, held biennially, is designed to offer a peek into India's food and culture as well as opportunities to invest and prosper from one of the world's largest consumer markets.

- The second edition will be held in November 2019. The first edition was held in 2017.

- There will be seminars and exhibitions, and more than 75000 business delegates from over 60 countries will be attending.

- It is expected to be attended by more than 50 global CEOs.

Context:

- Union Minister for Food Processing Industries met MPs at the Parliament Annexe. The meeting was held by the Ministry to spread awareness about the upcoming mega event World Food India 2019.

Objective

- The intention is to increase investments into India in the food and food processing sector. The event will showcase opportunities in India in its growing food processing industry.

World Food India 2019 Theme

- "Forging Partnerships for Growth"

Need for the event

- The processing level in India is low at 7.7% and is behind economies such as China, Malaysia and the United States.

- India's share of processed food exports globally is only 2%.

- Food processing is vital in achieving the PM's vision of doubling farmers' income in India and reducing food wastage.

32. Zero Budget Natural Farming (ZBNF)

- It is a method of chemical-free agriculture drawing from traditional Indian practices.

- It was originally promoted by Maharashtrian agriculturist and Padma Shri recipient Subhash Palekar, who developed it in the mid-1990s as an alternative to the Green Revolution's methods driven by chemical fertilizers and pesticides and intensive irrigation.

What was the need of it?

- There was rising cost of these external inputs which was a leading cause of indebtedness and suicide among farmers

- The impact of chemicals on the environment and on long-term fertility was devastating.

- Without the need to spend money on these inputs — or take loans to buy them — the cost of production could be reduced and farming made into a "zero budget" exercise, breaking the debt cycle for many small farmers.

Steps to be followed

- Instead of commercially produced chemical inputs, the ZBNF promotes the application of Jeevamrutha — a mixture of fresh desi cow dung and aged desi cow urine, jaggery, pulse flour, water and soil — on farmland.

  * This is a fermented microbial culture that adds nutrients to the soil, and acts as a catalytic agent to promote the activity of microorganisms and earthworms in the soil.

  * About 200 litres of jeevamrutha should be sprayed twice a month per acre of land; after three years, the system is supposed to become self-sustaining

- A similar mixture, called bijamrita, is used to treat seeds, while concoctions using neem leaves and pulp, tobacco and green chillis are prepared for insect and pest management.

- The ZBNF method also promotes soil aeration, minimal watering, intercropping, bunds and topsoil mulching and discourages intensive irrigation and deep ploughing

Why does it matter?

- According to National Sample Survey Office (NSSO) data, almost 70% of agricultural households spend more than they earn and more than half of all farmers are in debt. In States such as Andhra Pradesh and Telangana, levels of indebtedness are around 90%, where each household bears an average debt of ₹1 lakh.

- In order to achieve the Central government's promise to double farmers income by 2022, one aspect being considered is natural farming methods such as the ZBNF which reduce farmers' dependence on loans to purchase inputs they cannot afford. Meanwhile, inter-cropping allows for increased returns.

Is it effective?

- A limited 2017 study in Andhra Pradesh claimed a sharp decline in input costs and improvement in

yields.

- Farmers in Maharashtra, have reverted to conventional farming after seeing their ZBNF returns drop after a few years, in turn raising doubts about the method's efficacy in increasing farmers' incomes.

- Sikkim, which has seen some decline in yields following a conversion to organic farming, is used as a cautionary tale regarding the pitfalls of abandoning chemical fertilizers.

Which are the States with big plans?

- According to the Economic Survey, more than 1.6 lakh farmers are practising the ZBNF in almost 1,000 villages using some form of state support

- The original pioneer was Karnataka, where the ZBNF was adopted as a movement by a State farmers'

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INTERNATIONAL RELATIONS

1. African Union

- The African Union (AU) is a continental union consisting of 55 member states

- The AU was announced in the Sirte Declaration in Sirte, Libya in 1999

- The AU's secretariat, the African Union Commission, is based in Addis Ababa.

The objectives of the AU are the following:

- To achieve greater unity, cohesion and solidarity between the African countries and African nations.

- To defend the sovereignty, territorial integrity and independence of its Member States.

- To accelerate the political and social-economic integration of the continent.

- To promote and defend African common positions on issues of interest to the continent and its peoples.

Context

- 12th Extra-Ordinary Summit of the African Union (AU) concluded in July at Niamey, the capital of the Niger Republic

- It saw 54 of 55 of its member states signing the African Continental Free Trade Agreement (AfCFTA) for goods and services.

Concerns

- The African Union (founded as the Organisation of African Unity in 1963) has been largely ineffective in dealing with the continent's myriad problems such as decolonisation, underdevelopment, Islamic terrorism and the Arab Spring.

  * The AU's grand plans, including the Muammar Qadhafi-funded Africa Unity project, have been spectacular flops. It is, therefore, natural to take the AfCFTA, the AU's most ambitious project so far, with a ladleful of salt.

- Second, serious political, organizational and logistical challenges to the AfCFTA notwithstanding, the national economies in Africa are generally weak with a low manufacturing base.

  * They also lack competitiveness and mutual complementarity. Only a sixth of Africa's current total trade is within the continent.

- Third, the AfCFTA seems to be countercyclical to the ongoing global protectionist trends as seen in the U.S.-China trade conflict, Brexit and the stalemates at the World Trade Organisation and the United Nations Conference on Trade and Development.

  * World trade is likely to grow only by 2.6% in 2019, a quarter of last year's figure.

  * Commodity prices are stagnant and globalisation is often being reversed. With Africa accounting for only 3% of global trade, can the AfCFTA defy the contrarian global tendencies?

Still, there are reasons to be cautiously optimistic.

- Given the strong global headwinds including a cooling Chinese ardour for Africa, greater collective self-reliance through African economic integration makes eminent sense. Further, the AfCFTA can build upon the experience of the continent's five regional economic blocks.

- While the AU Commission is not famous for efficient planning, it has prepared an extensive road map towards the AfCFTA with preliminary work on steps such as incremental tariff reduction, elimination of non-tariff barriers, supply chains and dispute settlement

- A new breed of African transnational corporations such as Dangote, MTN, Ecobank and Jumia have continental ambitions. Indeed, the logistical and financial networks across the continent are poor and customs formalities are foreboding, but these can be eventually overcome with stronger political will.

- Thus, by adopting the AfCFTA, African leaders are only following the economic logic. Looking into the future, a recent UN projection showed that nearly half the world's population growth between now and 2050 would come from sub-Saharan Africa, the population of which would double to nearly two billion. This surge in consumer base would make the proposed AfCFTA even more important.

From the Indian angle

- Africa is already an important economic partner for India with total annual merchandise trade estimated at $70 billion or nearly a tenth of our global trade. India is Africa's third largest trading partner.

- While India's global exports have been largely stagnant, those to Africa have surged. For instance, exports to Nigeria in 2018-19 grew by over 33% over the previous year.

- Africa still has unfulfilled demand for Indian commodities, especially foodstuff, finished products (automobiles, pharmaceuticals, consumer goods) and services such as IT/IT-Enabled Service, health care and education, skilling, expertise in management and banking, financial services and insurance.

- India needs to anticipate the AfCFTA's likely impact on its interests and try to influence and leverage it to enhance India-African economic ties. In principle, African economies becoming more formalised and transparent would be in India's interest.

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- While local manufactured items and services may ultimately compete with Indian exports, Indian firms can co-produce them in Africa. If handled in a proactive manner, the AfCFTA is likely to open new opportunities for Indian stakeholders in fast-moving consumer goods manufacturing, connectivity projects and the creation of a financial backbone.

What should India do?

- New Delhi can help the AU Commission prepare the requisite architecture, such as common external tariffs, competition policy, intellectual property rights, and natural persons' movement.

- It can also identify various African transnational corporations which are destined to play a greater role in a future continental common market and engage with them strategically.

- The cross-linkages of a three million strong Indian diaspora spread across Africa can also be very valuable.

2. At the UNSC- India's agenda

Background

- India has won the unanimous support of all countries in the 55-member Asia-Pacific Group at the United Nations in support of its bid for a non-permanent seat at the UN Security Council (UNSC) for a two-year term in 2021-22.

- It's representation in the UNSC has become rarer. It is to re-enter the Council after a gap of 10 years.

- The previous time, in 2011-12, followed a gap of 20 years. In total, India has been in the UNSC for 14 years, representing roughly a fifth of the time the United Nations (UN) has existed.

- India must leverage this latest opportunity to project itself as a responsible nation.

Turmoil, Disorder and chaos in the region's surrounding India

- India finds itself in a troubled region between West and East Asia, a region bristling with insurgencies, terrorism, human and narcotics trafficking, and great power rivalries.

- There has been cataclysmic dislocation in West Asia. The Gulf is in turmoil. Though the Islamic State of Iraq and the Levant (Daesh) has been defeated, Iraq and Syria are not going to be the same as before.

- Surviving and dispersed Daesh foot soldiers are likely preparing new adventures, many in their countries of origin.

- The turbulence in West Asia is echoed in North and South Asia, a consequence of the nuclear and missile tests by the Democratic People's Republic of Korea and Afghanistan's slow but unmistakable unravelling from the support, sustenance and sanctuary provided in its contiguity to groups such as the Haqqani network, the Taliban, and al-Qaeda.

- Other problems in Asia include strategic mistrust or misperception, unresolved borders and territorial disputes, the absence of a pan-Asia security architecture, and competition over energy and strategic minerals.

A shift from Global order to Nationalism

- After the cold war ended there was a trend towards Internationalism which means that there was support for global unification and support for International system. Words like 'national interest' was seen with derogatory and insulting. But this has changed and the word Nationalism is now here to stay.

- Fear, populism, polarization, and ultra-nationalism have become the basis of politics in many countries.

- In fact Henry Kissinger in his work 'World Order', found the world to be in a greater state of disorder than at any time since the end of World War II.

Changes should be made and India should be represented permanently in UNSC

- A report by PricewaterhouseCoopers, "World in 2050", predicts that by 2050, China will be the world's number one economic power, followed by India.

- In China's case, this is subject to its success in avoiding the middle-income trap.

- And in India's, to more consistent economic performance than the experience of recent years.

- That said, one of the challenges of the international system today, and for India in the UNSC, is that this profound impending change is largely unrecognised by the great powers and other countries.

To this end, the permanent members (P-5) as also other UN members must consider it worth their while to reform the Council.

What should India aim to do?

- India will have to increase its financial contribution, as the apportionment of UN expenses for each of the P-5 countries is significantly larger than that for India.

- Even Germany and Japan today contribute many times more than India. Although India has been a leading provider of peacekeepers, its assessed contribution to UN peacekeeping operations is minuscule.

- At a time when there is a deficit of international leadership on global issues, especially on security, migrant movement, poverty, and climate change, India has an opportunity to promote well-balanced, common solutions.

Action plan for India

1. First, as a member of the UNSC, India must help guide the Council away from the perils of invoking the principles of humanitarian interventionism or 'Responsibility to Protect'. The world has seen mayhem result from this.

- And yet, there are regimes in undemocratic and repressive nations where this yardstick will never be applied.

- Given the fragile and complex international system, which can become even more unpredictable and conflictual, India should work towards a rules-based global order.
- Sustainable development and promoting peoples' welfare should become its new drivers.

2. Second, India should push to ensure that the UNSC Sanctions Committee targets all those individuals and entities warranting sanctions.

- Multilateral action by the UNSC has not been possible because of narrowly defined national interest.
- As on May 21, 2019, 260 individuals and 84 entities are subject to UN sanctions, pursuant to Council resolutions 1267, 1989, and 2253.
- The U.S. Department of Treasury's Office of Foreign Assets Control maintains a larger list of individuals and entities subject to U.S. sanctions.
- The European Union maintains its own sanctions list.

3. Third, having good relations with all the great powers, India must lead the way by pursuing inclusion, the rule of law, constitutionalism, and rational internationalism.

- India should once again become a consensus-builder, instead of the outlier it has progressively become.
- A harmonised response is the sine qua non for dealing with global problems of climate change, disarmament, terrorism, trade, and development.
- •India could take on larger burdens to maintain global public goods and build new regional public goods.
- For example, India should take the lead in activating the UNSC's Military Staff Committee, which was never set into motion following the UN's inception. Without it, the UNSC's collective security and conflict-resolution roles will continue to remain limited.

4. Fourth, India needs to uphold the objective of a multipolar world and counter existing trends towards unilateralism, ethno-centrism, protectionism and racial intolerance.

- It should seek to protect the World Trade Organisation from American attempts to undermine it, since the WTO's dispute mechanism is a resource for developing countries, as is the work of the United Nations Educational, Scientific and Cultural Organization, the UN Human Rights Council and other UN bodies despite the U.S. and a few other countries withdrawing support to them.
- India should attempt to make progress on the non-discriminatory elimination of weapons of mass destruction, protection of the environment against global warming, safeguarding outer space from weaponisation, and enhancing respect for diversity and plurality in world politics.
- India should underline the validity of Article 2 of the UN Charter that provides for state sovereignty and safeguards countries against outside interference in the domestic affairs of other states.

5. Fifth, among country-specific topics that are likely to re-appear before the UNSC are the 'frozen' disputes of Cyprus, Palestine, Ukraine and North Korea. On each of these, India has taken a balanced position that needs little reset.

Way forward

- A rules-based international order helps rather than hinders India, and embracing the multilateral ethic is the best way forward.
- Apolarity, unipolarity, a duopoly of powers or contending super-powers — none of these suit India. India has a strong motive to embrace polycentrism, which is anathema to hegemonic powers intent on carving out their exclusive spheres of influence.
- Finally, India cannot stride the global stage with confidence in the absence of stable relations with its neighbours. Besides whatever else is done within the UN and the UNSC, India must lift its game in South Asia and its larger neighbourhood.
- Accordingly, on all issues before the UNSC, India must give exceptional weightage as to how they will have an impact on the Indian subcontinent.

Middle-Income Trap

World Bank Classification

- The World Bank classifies the world's economies into four income groups — high, upper-middle, lower-middle, and low.
- It bases this assignment on Gross National Income (GNI) per capita (current US$) calculated using the Atlas method.

Updated Thresholds

- New thresholds are determined at the start of the World Bank's fiscal year in July and remain fixed for 12 months regardless of subsequent revisions to estimates.

Threshold	July 2019/$ (new)	July 2018/$ (old)
Low income	< 1,025	< 995
Lower-middle income	1,026 - 3,995	996 - 3,895
Upper-middle income	3,996 - 12,375	3,896 - 12,055
High income	> 12,375	> 12,055

Trap

- This is a risk that emerging economies are said to be vulnerable to.
- As a country runs out of new sources of growth after an initial burst of rapid expansion, it finds itself unable to break into a higher-income league.

- Middle-Income Trap crystalizes the notion that growing rapidly can become more difficult after a country moves up from low income to middle income.

- The transition from middle income to high income is inherently more challenging than the transition from low income to middle income

Sanctions

- The Security Council can take action to maintain or restore international peace and security.

- Security Council sanctions have taken a number of different forms, in pursuit of a variety of goals.

- The measures have ranged from comprehensive economic and trade sanctions to more targeted measures such as arms embargoes, travel bans, and financial or commodity restrictions.

United Nations Military Staff Committee

- The Military Staff Committee is a United Nations Security Council subsidiary body whose role is to plan UN military operation and assist in the regulation of armaments

3. Cabinet approves MoU between India and Maldives

Context

- The Union Cabinet has given ex-post facto approval for the MoU between India and Maldives for the establishment of passenger and cargo services by sea

- The Union Cabinet has given ex-post-facto approval to the Memorandum of Understanding (MoU) between the Government of the Republic of India and the Government of the Republic of Maldives on cooperation in the field of Health.

About MOU for services by sea

- Male, the capital and most populous city and Kulhudhuffushi, the third most populous city of Maldives are good prospects for introduction of ferry service from Kochi for both tourists as well as cargo.

- Kulhudhuffushi and the islands around are a major population centre in the northern part of Maldives and have a large number of resorts which could be possible tourist destinations for Indians.

    * The distance Kochi and Kulhudhuffushi atoll is 500 km in the open sea

- On the other hand, connectivity with Kochi through sea could promote inbound tourism, particularly health and wellness tourism for India.

About MOU in Health sector

- Exchange & Training of medical doctors, officials, other health professionals and experts;

- Medical and health research development;

- Regulation of medicines and medical products, and exchange of information thereon;

- Communicable and Non-Communicable diseases;

- E-Health and Telemedicine; and

- Any other area of cooperation as may be mutually decided upon.

4. Demilitarized Zone

- The DMZ, which runs across the Korean Peninsula, is 248 kilometres (154 miles) long and the 4 kilometres (2.5 miles) wide. Created as a buffer at the close of the 1950-53 Korean War, it's jointly overseen by the American-led U.N. Command and North Korea.

- Hundreds of thousands of North and South Korean troops are now deployed along the DMZ, which is littered with an estimated 2 million mines, tank traps, razor wire fences and guard posts.

Panmunjom

- Panmunjom is where an armistice was signed to stop the Korean War.

- Panmunjom is 52 kilometres (32 miles) north of Seoul and 147 kilometres (91 miles) south of Pyongyang.

Context

- Donald Trump meets Kim Jong Un, becomes 1st sitting US President to enter N Korea

Background

- The Hanoi summit collapsed chiefly as the U.S. considered the compromise that North Korea offered insufficient to warrant reciprocation with sanctions relief.

- North Korea had agreed to close down the Yongbyon facility, its main nuclear fuel production site, but the U.S. rejected the offer, saying the North's nuclear capability is now much more diversified and goes beyond that one plant.

Nuclear Weapons as protective cover

- For Pyongyang, nuclear weapons are its insurance against potential external aggression, and it would accede to total denuclearisation only if its security concerns are ensured and sanctions are fully withdrawn.

Way forward

- Both sides should learn from their failure in Hanoi.

- They can take small steps towards the final goal.

- The U.S. could demand a total freeze on North Korea's nuclear activities, besides shutting down Yongbyon, which the North has already agreed to, in return for providing partial reprieve from sanctions.

- Constructive and reciprocal confidence-building measures would mean that Mr. Trump's personal diplomatic outreach and the momentum it created won't be in vain.

5. Fairness of High-Skilled Immigrants Act, 2019 or HR 1044

Context

- The US lawmakers passed a Bill aimed at lifting the current seven per cent country-cap on issuing Green Cards

What is a Green card?

- A Permanent Resident Card, also known as a 'Green Card', allows a non-US citizen to live and work permanently in America.

- Green Card holders can qualify for US citizenship generally after three to five years. Over 10 lakh migrants from around the world are known to receive Green Cards yearly.

How to get a Green Card?

- In order to get a Green Card, first, an immigrant petition has to be made to the United States Citizenship and Immigration Services (USCIS).

- In most cases, this petition has to be made by a sponsor, such as an employer. Skilled migrants from India typically require their employers to fill the I-140 form at this stage.

- Once the petition is approved, a Green Card application has to be filed with the USCIS or a visa application has to be made with the US State Department.

- Finally, a decision regarding the application is made only after an interview.

Popular Green Card categories

Categories of employment-based visas under which Indian professionals are known to apply are the

- 'EB-1', or priority workers with extraordinary ability,

  * Positions in the arts, sciences, education, business, and athletics that require extraordinary* ability

  * Outstanding professors and researchers

  * Multinational managers and executives

- 'EB-2' or those holding advanced degrees. The EB-2 category generally sees the most number of applicants.

  * Positions requiring at least a master's degree

  * Positions requiring at least a bachelor's degree, plus at least five years' relevant experience

  * Physicians who agree to work full-time in underserved areas for a specific period and meet other eligibility criteria

- 'EB-3' or skilled workers.

  * Skilled positions that require a minimum of two years' training or experience that is not temporary or seasonal

Features of Bill

- As per the present system, out of the total number of family-based immigrant visas to be given by the US in a particular year, the people of a country can be given a maximum of seven per cent of such visas. The new Bill seeks to increase this seven per cent per-country limit to 15 per cent.

- Similarly, it also seeks to eliminate the seven per cent per-country cap on employment-based immigrant visas. Additionally, it removes an offset that reduced the number of visas for individuals from China.

- The bill also establishes transition rules for employment-based visas from FY 2020-22 by reserving a per centage of EB-2 (workers with advanced degrees or exceptional ability), EB-3 (skilled and other workers) and EB-5 (investors) visas for individuals from other than the two countries that get the largest number of such visas.

- As per another provision of the Bill, not more than 85 per cent of the unreserved visas, would be allotted to immigrants from any single country.

Significance

- A change in the existing law can mean that immigrants from countries like India and China seeking permanent residency could expect shorter wait times.

- Indian IT professionals, who under the existing law would have to wait up to 70 years as some studies suggest, can now hope for a fairer system with lesser processing time.

6. Giving ties with Seoul a facelift

Background

- Prime Minister Narendra Modi met South Korean President Moon Jae-in on the sidelines of the G20 summit in Osaka.

- Both agreed to find common ground between Seoul's 'New Southern Policy' and New Delhi's 'Act East Policy'.

New Southern Policy

- Korean government's New Southern Policy aims to cultivate its relations with ASEAN and India as key partners in the southern region

- It aims to strengthen the economic-cooperation and build a prosperous and people-centric community of peace

  * while India's "Act East Policy," as articulated by Modi, focuses on promoting deeper economic engagement, reinvigorating cultural and civilizational relations, and developing new strategic partnerships with countries in the Indo-Pacific region through continuous engagement at bilateral as well as at multilateral levels.

- Both these policies show convergence in their objectives and should further strengthen the Special Strategic Partnership between India and South Korea.

Why was it initiated?

- The New Southern Policy aims to form a multilateral economic and diplomatic framework to adjust to the U.S.'s priority on domestic concerns, which has been in full swing since the inauguration of the Trump administration, and to the expansion of China's influence across East Asia.

  * Korea's trade has been heavily dependent on the United States and China.

- This concentration on a certain few countries in its trade structure has made Korea susceptible to changes in their foreign policy strategies and constrained the range of changes in its foreign economic policies.

- South Korea experienced difficulties in its relations with China in 2016 due to the THAAD issue, and has also experienced difficulties in exporting to the U.S. due to the strong nationalistic trends it has shown since the inauguration of the Trump administration.

- If Korea is to establish a foreign economic policy that maximizes its profits with confidence, it should first diversify its trade structure centered on a few certain countries and reduce its external risks.

Shared Values

- India and South Korea have values of open society, democracy and liberal international economic order and their mutual engagement is at a historically unprecedented level. Significant strides have been made in several areas of science and technology.

- The Indo-Korea Science and Technology Centre, established in Bengaluru in 2010 as a collaboration between the Indian Institute of Science and the Korea Institute of Science and Technology

- The emerging balance of power in the region has also started influencing the trajectory of defence ties. Co-production of the K9 Thunder howitzer is a prime example of the ongoing defence collaboration.

  * With technology transfer from South Korea, India's Larsen and Toubro plans to achieve over 50% localisation by manufacturing the key components of these weapon systems domestically as part of 'Make in India'.

- Further, both countries have regularised education exchanges.

- Additionally, there is regular security dialogue between India's National Security Adviser and the intelligence agencies of Korea.

The fallout of trade war

- The ongoing trade war between U.S. and China has also started playing into India-South Korea bilateral ties as South Korean companies are now finding it more difficult to sell their products in the U.S., whenever they are produced in their Chinese branches.

- Growing trade tensions have forced South Korean companies to contemplate moving their production facilities to locations outside China.

- India is emerging as a prime beneficiary here, not least because of the considerable size of the Indian domestic market, its cheap labour costs and a stable legal system.

Economic Cooperation

Since India opened up its economy in the early 1990s, India-South Korea trade ties have grown from few hundred million dollars to $22 billion at the end of 2018.

- Today the major items that India exports to South Korea include mineral fuels, oil distillates (mainly naphtha), cereals and, iron and steel.

- South Korea's main exports to India include automobile parts and telecommunication equipment, among others.

Trade target likely to be missed- Concerns

However, despite the robust ties, not everything is going as planned. The trade target of $50 billion by 2030 is most likely to be missed due to lack of adequate efforts.

- The Comprehensive Economic Partnership Agreement, originally the core mechanism for economic ties, requires immediate upgrading.

- An early harvest agreed in 2018, under which India agreed to reduce tariff on 11 commodities and South Korea on 17, failed to see completion.

- More than eight years into its existence, the Indian Chamber of Commerce in Korea (ICCK), is struggling to find its due space in promoting economic and business ties and spends most of its time organising social and cultural events.

  * A new, empowered commerce body is the urgent need of the hour.

- The Indian Cultural Centre, established more than ten years ago, has failed to reach out to common South Koreans, who still fail to differentiate between India and Indonesia.

  * While it teaches regional dance forms to children, the bigger picture of introducing India to the general South Korean population has been lost.

- Further, social and economic discrimination against Indians working and living in South Korea is still a regular occurrence.

Conclusion

- South Korea can be an indispensable partner of India in its Act East Policy in the Indo-Pacific region.

- In the context of growing Chinese assertiveness, India and South Korea share a common vision as well as similar concerns with respect to the emerging economic and security architecture and the regional order that is taking shape in the Indo-Pacific region.

7. **India abstains from voting for LGBTQ rights**

Context

- India maintained its past position on LGBTQ rights by abstaining from voting at the UN Human Rights Council on a resolution moved by Latin American states seeking to renew the mandate of independent expert on protection against violence and discrimination based on Sexual Orientation and Gender Identity (SOGI).

What was the resolution about?

- The Resolution numbered L10 Rev 1 granted an extension of three years to the Independent Expert to carry on reporting on incidents of violence against the LGBTQ community all over the world.

- The Resolution will help integrating the work of the crucial official into the larger body of global work by the United Nations.

- The text of the resolution specifically asked the U.N. for providing financial support to the official in implementing the mandate.

Abstention

- The resolution received support from most of the member countries at the Human Rights Council but India, Angola, Burkina Faso, Cameron, Congo, Hungary, Togo and Senegal abstained during the final voting.

- Pakistan, Saudi Arabia, China, Bangladesh, Bahrain, Qatar, Somalia opposed the resolution.

- India had also abstained during the 2016 vote on appointment of the Independent Expert.

Criticism

- The abstention of 2016 was before the landmark Supreme Court pronouncement on Section 377 and therefore India's latest abstention which comes after the Supreme Court's decision against 377 is disappointing.

8. **India builds 250 homes in Myanmar to assist Rohingya**

Background

- A local militant group Arakan Rohingya Salvation Army (ARSA) attacked several Myanmar police posts in August 2017, killing about 12 in nearby Rakhine villages.

- In attacks on the Muslim Rohingya, termed 'retaliatory' by Myanmar's Junta and the majority Buddhist community, thousands were killed.

- The Rohingyas were mass murder, gang-rape of women and children and burning of thousands of homes.

- Nearly a million Rohingya, are now living in precarious conditions in the Bangladesh's mud tracts in Kutupalong camp.

- In fact United Nations in 2013 as one of the most persecuted minorities in the world

Context

- India has handed over 250 prefabricated (housing parts are assembled on site) houses it built in Myanmar's Rakhine state as part of a broader effort to help tens of thousands of Rohingya Muslims to return

- The 250 houses, built in three clusters, are in the Shwe Zar, Kyein Chaung Taung and Nan Thar Taung areas that saw some of the worst cases of violence

2017 pact

- The project is part of an agreement signed by the two governments in 2017, under which the government had committed to spending $25 million over five years.

- The houses, measuring 40 square metres each, are designed to survive quakes and cyclonic storms

- The Myanmar government has also handed over a list of 21 other projects that it wants India to fund as part of the agreement

- Apart from building houses, India is also planning to build hospitals, schools, small bridges and culverts in Rakhine state, and wants others like China, Japan and other ASEAN countries to pitch in to create a social and economic ecosystem

Issue Area

- However, the government in NayPyiTaw still refuses to recognise the Rohingya as citizens and will not prosecute military personnel and civilians for the killings, which the United Nations officials said bore the "hallmarks of genocide".

- In such a situation, several international refugee relief and human rights agencies have counselled against forcing the refugees to return to Myanmar.

9. **Iran defends seizure of U.K. oil tanker**

Context:

- Britain denounced the Iranian seizure of a British-flagged oil tanker in the Gulf as a"hostile act". However, Iran said it had seized the vessel because it had been involved in an accident.

What is the issue?

- The 'Stena Impero' is an oil tanker owned by a Swedish company, Sten Bulk, but was flying the British flag.

- According to the Iranian government, the Stena Impero was involved in a collision with a smaller Iranian fishing boat in the Straits, which the IRGC (Iranian Revolutionary Guard Corps) called a "violation of international regulations".

- However, U.K. officials say they believe that the seizure by Iran was in retaliation for the seizure of an Iranian tanker Grace-1 off Gibraltar by British forces. The oil tanker is alleged to have violated U.S. sanctions on Syria.

Impact on India:

- When Iranian tanker was captured by Royal marines, Four Indians were among the crew on board the vessel, who were detained but later freed on bail without charges.

- Similarly, the ship's captain and 17 other crew members detained on board are Indians. India has reached out to the Iranian government to help release the 18 Indian crew members.

- The seizures of both tankers highlights how India is being affected by growing tensions between the U.S. and its allies, and Iran.

- Indian sailors on various ships are under threat from the tit-for-tat actions on the high seas.

- At the same time, Indian diaspora i.e. lakhs of Indians living in the Gulf region would face the consequences of any open conflict.

- Also, Indian air carriers have avoided flying over parts of Iranian airspace after American FAA strictures, which has already meant crores in losses

10. Iran's Nuclear Program

Context

- Iran announced it will raise its enrichment of uranium, breaking another limit of its faltering 2015 nuclear deal with world powers and further heightening tensions between Tehran and the US.

- Iran made the decision a year after President Donald Trump unilaterally withdrew from the deal.

The Nuclear Deal

- Iran struck the nuclear deal in 2015 with the United States, France, Germany, the United Kingdom, Russia and China. The deal, formally known as the Joint Comprehensive Plan of Action, grew out of secret talks President Barack Obama's administration held with Iran after Rouhani, a relative moderate, took office.

- Iran agreed to limit its enrichment of uranium under the watch of U.N. inspectors in exchange for the lifting of economic sanctions.

- President Donald Trump, who campaigned on a promise of tearing up the deal because it didn't address Iran's ballistic missile program or its involvement in regional conflicts, withdrew America from the accord in May 2018.

- That halted promised international business deals and dealt a heavy blow to Iran's already anemic economy.

Iran's Nuclear Facilities

- Natanz, in Iran's central Isfahan province, hosts the country's main uranium enrichment facility, located underground.

- Iran has one operating nuclear power plant in Bushehr, which it opened with Russia's help in 2011.

- Under the accord, Iran reconfigured a heavy-water reactor so it couldn't produce plutonium and agreed to convert its Fordo enrichment site – dug deep into a mountainside – into a research center.

- Tehran also operates an over 50-year-old research reactor in Tehran.

Iran's Uranium Stockpile

- Under terms of the nuclear deal, Iran can keep a stockpile of no more than 300 kilograms (661 pounds) of low-enriched uranium. That's compared to the 10,000 kilograms (22,046 pounds) of higher-enriched uranium it once had. Currently, the accord limits Iran to enriching uranium to 3.67%, which can fuel a commercial nuclear power plant.

- Weapons-grade uranium needs to be enriched to around 90%. However, once a country enriches uranium to around 20%, scientists say the time needed to reach 90% is halved.

- Iran previously has enriched to 20%. Iranian officials say they've quadrupled their production of low-enriched uranium and broke the 300-kilogram limit on July 1.

Iran's Centrifuges

- A centrifuge is a device that enriches uranium by rapidly spinning uranium hexafluoride gas. Under the atomic accord, Iran has been limited to operating 5,060 older-model IR-1 centrifuges.

- The IR-1 is based on a 1970s Dutch design that Pakistani scientist A.Q. Khan used to build Islamabad's nuclear weapons program and later sold to Iran, Libya and North Korea.

- Iran has the technical ability to build and operate advanced versions called the IR-2M, IR-4 and IR-6 at Natanz, but is barred from doing so under the nuclear deal.

- Ali Akbar Salehi, the head of Iran's nuclear program, told that the IR-2M and the IR-4 can enrich uranium five times faster than an IR-1, while the IR-6 can do it 10 times faster.

- Western experts have suggested these centrifuges produce three to five times more enriched uranium in a year than the IR-1s.

From `Atoms for Peace' To Stuxnet

- Iran's nuclear program actually began with the help of the United States.
    - * Under its "Atoms for Peace" program, America supplied a test reactor that came online in Tehran in 1967 under the rule of Shah Mohammad Reza Pahlavi.
    - * That help ended once Iran's 1979 Islamic Revolution overthrew the shah.

- In the 1990s, Iran expanded its program, including buying equipment from A.Q. Khan.

    * Among its activities, Iran "may have received design information" for a bomb and researched explosive detonators, according to the International Atomic Energy Agency.

- By August 2002, Western intelligence services and an Iranian opposition group revealed a covert nuclear site at Natanz. Iran to this day denies its nuclear program had a military dimension.

    * Iran suspended enrichment in 2003 but resumed it three years later under hard-line President Mahmoud Ahmadinejad. World powers imposed crippling U.N. sanctions in response.

    * The Stuxnet computer virus, widely believed to be a joint U.S.-Israeli creation, soon disrupted thousands of Iranian centrifuges.

11. Japan and South Korea at loggerheads

What is the dispute?

- According to CNBC Japan placed export restrictions on South Korea with regard to three key high-tech materials that are critical for manufacturing semiconductors.

    * Japan reportedly also removed South Korea from its "white country" list, that is, nations Japan deems to have trustworthy export control systems.

    * Japan has announced that it will implement tighter export curbs on essential chemical materials– fluorinated polyamides, photoresists and hydrogen fluoride which are mostly imported by Samsung Electronics and SK Hynix to produce memory chips, displays and next-generation semiconductors.

    * Semiconductors take up some 25% of Korea's exports.

- In response, South Korea has now threatened to take Japan's export restriction to the World Trade Organization, after preliminary negotiations failed.

    * What further points to growing tensions is that South Korea's Finance Minister, announced that Seoul was "working on comprehensive plans to reduce the country's dependence on Japan's materials, components and equipment industries."

Why did Japan restrict exports?

- Japanese officials have hinted that South Korea doesn't adequately oversee the end use of those chemicals, which could also have military applications outside the technology field

- Japan has even accused South Korea of passing on one of the said materials — hydrogen fluoride — to North Korea.

- The shipment was cleared for exports from Japan to South Korea only. On its part, Seoul denied these allegations.

What are the likely economic implications of this feud?

- They cannot be good. For one, if instead of bilateral negotiations, this feud reaches WTO, it will only make it linger. That will hurt the semi-conductor business across the world because of the disruption to the global supply chain.

- Countries that rely on South Korea's semiconductors such as United States, China and even Japan will all be adversely affected, causing a domino effect on the global supply chain in computer and smartphone industries.

- It has the potential to become a more widespread trade war between the two neighbours, far beyond the few goods that are in question at present.

what's the fight really about?

- Most experts believe the tech trade war is all about World War II—specifically, South Korean umbrage at Japan's use of forced labor during the wartime occupation and what many in South Korea see as Japanese unwillingness to fully acknowledge the country's wartime activities or make amends.

- The immediate trigger for the trade war appears to be a South Korean court case in 2018, which ruled that Japan's biggest steelmaker, Nippon Steel, used forced labor during the war and ordered the firm to compensate some South Korean survivors with about $89,000 each.

- A similar case last year ruled against Mitsubishi Heavy Industries, and other cases against scores of other Japanese firms are being heard in lower courts.

- Japan argues that it has already made amends with a monetary settlement in the 1965 accord that reestablished diplomatic relations between the two countries, but South Korean courts don't see it that way.

what's next?

- The WTO will take up the Japan-South Korea dispute, but that could require a year or more to work its way through the dispute settlement process

- In the meantime, the United States should take an active role in defusing the fight between its two main allies in Asia.

12. Kankesanthurai harbour in Sri Lanka

Context

- India has extended a fresh financial assistance of $45.27 million for upgrading Kankesanthurai (KKS) Harbour in northern Sri Lanka into a commercial port and strengthening the country's efforts to become a regional maritime hub.

Details

- The KKS port was rendered useless after the LTTE attacked it during the civil war.

- The port was key in connecting the Jaffna peninsula with the rest of Sri Lanka and also India.

- The upgradation project would make KKS Harbour a full-fledged commercial port, further strengthening Sri Lankas efforts to become a regional maritime hub

- It would also assist in reconstruction efforts in northern Sri Lanka.

Significance

- There is scope for increased trade activity and tourism

- It will help especially with Buddhist tourism from the south of the island, and by extension people-to-people connections

- KKS Port will facilitate increased trade opportunities for communities living in proximity to the port and reduce the cost of road and rail transport for bulk items such as cement.

13. Kulbhushan Jadhav verdict

Background

- Kulbhushan Jadhav, a former Indian Navy officer, was arrested by Pakistani officials on March 3, 2016, on suspicion of espionage and sabotage activities against the country. Claiming that Jadhav was an Indian spy, the Pakistani military court sentenced him to death.

- The Indian side, however, maintains that Jadhav was kidnapped from Iran where he had business interests after retiring from the Navy and that he has no links with the government.

- The execution was stayed after India's appeal at International Court of Justice.

Consular Access

- Despite multiple requests from India in the past, Pakistan has been denying consular access to Jadhav claiming that New Delhi wants to extract information gathered by its "spy".

- In its counter-memorial submitted to the International Court of Justice (ICJ), Pakistan said the provision of such an access under the Vienna Convention is only for legitimate visitors and not for spies

Context

- The International Court of Justice (ICJ) stayed the execution of Kulbhushan Jadhav by Pakistan.

- However, the ICJ in the Hague, in a 15-1 decision, directed Pakistan to stay his execution and allow him consular access.

Impact

- Pakistan claimed that Jadhav was not entitled to consular access since he was arrested in an alleged case of espionage, the ICJ said that such an exception cannot be justified in international law.

- The verdict clarified that the Vienna Convention on Consular Access is applicable even for spies and Indian consular officers must be given access to Jadhav to arrange for his legal representation.

- The ICJ by allowing legal representation for Jadhav has, essentially, forced Pakistan to follow a more rigorous process to ensure an effective review as per the court's ruling.

- Pakistan had also argued that a 2008 bilateral agreement between India and Pakistan on consular access modifies the 1963 Vienna Convention to exclude consular access in cases of "political or security grounds."

- However, the ICJ ruled that bilateral agreements must be read as "supplementing, not replacing" multilateral treaties.

14. OIC's curious record on Xinjiang

- The OIC, representing 57 member states and a population of about 1.8 billion people, is the world's second-largest intergovernmental organisation after the UN

- It endeavors to safeguard and protect the interests of the Muslim world in the spirit of promoting international peace and harmony among various people of the world.

- The Organization was established upon a decision of the historical summit which took place in Rabat, Kingdom of Morocco in 1969

- The Organization has consultative and cooperative relations with the UN and other inter-governmental organizations to protect the vital interests of the Muslims and to work for the settlement of conflicts and disputes involving Member States.

* It routinely expresses solidarity with Palestine, Iraq, Afghanistan, Syria and Bosnia, as well as with the peoples of the Turkish Cypriot state, Kosovo and Jammu and Kashmir.

- Headquarters: Jeddah, Saudi Arabia

- Official languages: Arabic, English and French

Background

- India is not a member of the OIC, but was invited to 46th session of the Council of Foreign Ministers of the Organisation of Islamic Cooperation (OIC) held in Abu Dhabi in March.

On the Kashmir issue

- At the Makkah summit, the OIC reiterated its support for the legitimate rights of the people of Jammu and Kashmir.

    * It asked for the expedited establishment of a UN commission of inquiry to investigate into the grave human rights violations in Kashmir, and called on India to allow this proposed commission and international human rights organizations to access Kashmir

- The organisation, while making repeated references to Jammu and Kashmir, has traditionally disregarded the fact that India is a democratic and secular country, where every citizen is protected by the Constitution and is free to practise one's religion.

- It has also conveniently disregarded the fact that India regularly holds State and general elections, including in Jammu and Kashmir.

Turning a blind eye

- On the other hand, it has turned a Nelson's eye to the human rights violations committed by its own members, like the actions of the Pakistani state in Balochistan.

- China's is known for committing human right violation in Xinjiang province, it curbs on religious freedom of Uighurs and other Muslim ethnic groups

    * Human Rights Watch report issued in September 2018 had also criticised Beijing's policies in Xinjiang.

    * A review held by the United Nations Committee on the Elimination of Racial Discrimination in 2018 had claimed, citing credible reports, that Beijing had turned the Uighur autonomous region into "something that resembles a massive internment camp".

    * Abu Dhabi declaration, like the Dhaka Declaration, made no reference to China or its Muslim minorities. Further, it is intriguing that one resolution passed at Abu Dhabi chose to "commend the efforts of the People's Republic of China in providing care to its Muslim citizens".

On its part, China has defended its policies and claimed that its so-called 'internment camps' are actually vocational centres meant to "to educate and save [the local people of Xinjiang] who were influenced by religious extremism".

Innocuous Appeals

All nations have a right to reject external interference in their internal affairs. However, while the OIC remains critical of India, it is wary of treading on China's toes.

- The Baku OIC resolution of 2006 made an appeal "to give special attention to the conditions of Muslims in East Turkistan (Xinjiang) and to examine the possibility of working out a formula for cooperation with the Chinese Government".

- The Islamabad OIC meeting in 2007 made only an anodyne request to its Secretary General "to make contact with the Government of China" on the matter "and to subsequently report on these consultations".

Why has OIC been soft on China?

The organisation remains mindful of how far it can go with its criticism of Beijing considering that

- China is a major power, a permanent member of the UN Security Council,

- It is a large market for hydrocarbons and a source of arms and investment.

- Moreover, China refrains from preaching to others about human rights or systems of governance.

- As China's continued import of oil from Iran suggests, countries under U.S. pressure and sanctions often turn to China for relief. In return, they do their best to guard China's interests at the OIC.

Conclusion

- However, OIC countries, under the influence of Pakistan, support resolutions against India despite having excellent bilateral ties with the country.

- Recent developments — a call from Pakistan's Minister for Religious Affairs Pir Noor-ul-Haq Qadri urging China to lift restrictions on Muslims in Xinjiang and Jamaat-e-Islami Pakistan chief Sirajul Haq's raising concerns about the Uighur issue with the Chinese Ambassador — must, hence, have come as deep embarrassment to the OIC.

15. Russian S-400 defense systems arrive in Turkey

Context

- Turkey's Defense Ministry says the first shipment of a Russian missile defense system has arrived in Turkey

Why Turkey requires them?

- Turkey says the system is a strategic defence requirement, particularly to secure its southern borders with Syria and Iraq.

- It says that when it made the deal with Russia for the S-400s, the U.S. and Europe had not presented a viable alternative.

How does the S-400 work?

- Long-range surveillance radar tracks objects and relays information to command vehicle, which assesses potential targets

- Target is identified and command vehicle orders missile launch

- Launch data are sent to the best placed launch vehicle and it releases surface-to-air missiles

- Engagement radar helps guide missiles towards target

Background

- In November 2015, a Turkish F-16 shot down a Russian fighter jet over the Syrian border, ratcheting up tensions between Moscow and Ankara.

- There were speculations that Russian President Vladimir Putin would retaliate. But Mr. Putin didn't take any military action against Turkey. Instead, he stayed focussed on his strategic goal of defeating the anti-regime rebels and jihadists and bolstering Syria's existing state institutions.

- Mr. Putin's strategy was not to attack Turkey, but to win over it. He exploited the cracks in the Atlantic alliance, especially in U.S.-Turkey relations. Evolving regional equations also favoured his bet.

Why Turkey is important Geo Politics?

- Turkey is a NATO member and also hosts a U.S. airbase in Incirlik.

- Turkey's strategic location, in the intersection of southern Europe, Central Asia and West Asia, makes it a pricey catch in geopolitical games.

- During the Cold War, Turkey was a key buffer for the Atlantic powers against the Soviet Union.

- Even after the Soviet Union disintegrated, the U.S. continued to maintain a close alliance with Ankara.

But now a high-tech Russian missile system protects a NATO nation's airspace.

U.S. has raised several technical issues over Turkey acquiring the S-400

- It fears the system will gather data from the latest radar-evading American bombers, F-35, for which Turkey has placed an order.

- In response to Turkey's decision to go ahead with the S-400 deal, the U.S. has already suspended training programmes for Turkish pilots.

- Ankara could also attract sanctions from Washington. But beyond these issues, the political point of a NATO member defying NATO and a powerful member of the alliance to buy Russian weaponry is what makes the S-400 deal the hottest post-Soviet weapons agreement.

Sanctions

- It is a move expected to trigger U.S. sanctions against a NATO ally and drive a wedge into the heart of the Western military alliance.

- Under legislation known as Countering America's Adversaries through Sanctions Act (CAATSA), which targets purchases of military equipment from Russia, Mr. Trump can impose sanctions

- This can range from banning visas and denying access to the U.S.-based Export-Import Bank, to the harsher options of blocking transactions with the U.S. financial system and denying export licences.

- The United States has warned Turkey it will face economic sanctions if it goes ahead with the purchase of a Russian missile defense system.

- It has also said Turkey won't be allowed to participate in the program to produce the high-tech F-35 fighter jets.

Why did Turkey defy the U.S., even risking sanctions when its economy is underperforming?

- A host of factors led President Recep Tayyip Erdogan to redirect foreign policy.

- The fissures in U.S.-Turkey ties date back to the 2003 Iraq War when Ankara refused to be a launchpad for the American invasion.

- During the Syrian crisis, Turkey wanted the U.S. to interfere in Syria on behalf of the rebels and overthrow the Assad regime, but the Obama administration refused to do that.

  * Turkey at that time was betting on the Arab Spring as a foreign policy tool to expand its influence in West Asia and North Africa.

  * The expectation was that the dictatorships in the region would be replaced by Islamist political parties (say, the Muslim Brotherhood which is ideologically aligned with Turkey's ruling Justice and Development Party). But this bet was counterproductive, especially in Syria.

- In the initial years of the Syrian crisis, the porous Syrian-Turkish border was a crucial transit point for rebels and jihadists alike. By the time Turkey started sealing the border, the Islamic State (IS) had established itself as a dominant player in Syria.

  * The IS initially attacked Syrian government forces and rebel groups.

  * But once it started facing the heat on the battlefield, it turned against Turkey, carrying out a host of terror attacks in 2016.

- Another consequence of Turkey's failed Syrian bet was the empowerment of Syrian Kurdish rebels, who have close ideological and military ties with the Kurdistan Workers' Party, which has been fighting the Turkish forces for decades.

  * When Kurds fought the IS in the battlefield, the U.S. started supporting them directly. So Turkey lost all sides in Syria.

* It failed to topple the Assad regime as the Russians and Iranians came to the regime's rescue.

* The porous border policy backfired as jihadists turned against Turkey.

- Finally, there is an empowered Kurdistan across the border controlled by battle-hardened Kurdish rebels, who Turkey sees as its primary enemies.

Turkey's benefits in conflict with the U.S.

- Turkey accepted this new reality. It gave up its demand to topple the Assad regime, and shifted its focus to creating a buffer between its border and Syrian Kurdistan.

- For this it needs Russian and Syrian help, as the Syrian government also doesn't want to see the Kurds being empowered any further.

- But Kurds were the U.S.'s partners in the war against the IS, and over 2,000 U.S. troops are still stationed in Syrian Kurdistan.

- Ankara blames Fethullah Gulen, a U.S.-based Turkish cleric, for the 2016 failed coup bid against Mr. Erdogan, and wants him to be extradited to Turkey. The U.S. refused to give in to Turkey's demands.

- Turkey also wanted to buy the Patriot missile defence system from the U.S., but Washington initially was not keen on selling it to Ankara. As all these issues piled up, Turkey turned to a willing Russia.

Therefore Turkey's interests directly clash with the U.S.'s.

Putin's calculus

- For Mr. Putin, Turkey is a big win, a luxury which even his Soviet bosses didn't have.

- If it has Turkey on its side, Russia will have seamless access to the Mediterranean Sea from the Black Sea (where it has Naval bases) through the Bosporus Strait.

- And if Russia wants to deepen its engagement in West Asia in the long term, Turkey's role would be critical.

This doesn't mean that Russia and Turkey have become new regional allies. There are still structural issues between them.

- In Syria, where both countries continue to back rival sides, the crisis remains unresolved.

- Turkish national security establishment has historically been aligned with the U.S. Russian and Turkish interests vary in several other countries, from Libya to Israel. But the unmistakable message that Turkey has sent is that the U.S. is no longer an indispensable partner in its national security strategy.

- Turkey has also told NATO that it's ready to risk the organisation's ire over a defence deal with Russia. Turkey is tilting.

Conclusion

- The U.S. will have to either mend its ways to retain a drifting Turkey or take retaliatory steps against an ally.

- Either way, it's a "check" by Mr. Putin on the grand geopolitical chessboard.

Long-range surveillance radar   Command vehicle   Engagement radar   Launch vehicle
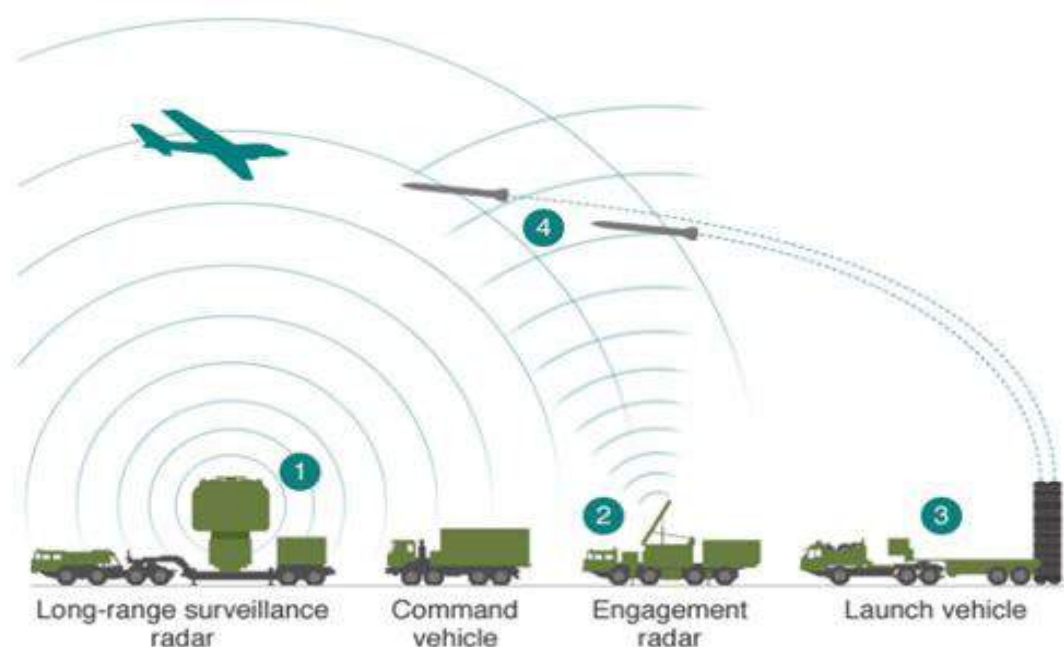
16. Three Military Logistics Support Agreements on the anvil

Context

- India is looking to conclude three Military Logistics Support Agreements (MLSA) by the year-end, which will further enhance the operational reach of the military in the region.

Acquisition and Cross-Servicing Agreement (ACSA)

The MLSA with Japan is called the Acquisition and Cross-Servicing Agreement (ACSA)

- Indian navy would get access to Japanese facilities for maintenance, would get access to fuel and servicing.
  - * Japanese ships similarly would get access to fuel and servicing at major Indian naval bases.
- The ACSA would permit the Indian Navy (IN) access to a Japanese base in Djibouti, while the
  - * Japan Maritime Self Defense Force (JMSDF) would be permitted to use India's military installations on the Andaman and Nicobar Islands located in the Indian Ocean, which lie near the Malacca Straits
- This is to balance China's growing weight in the Indian Ocean region and as a way to counter China's expanding presence in the Indian Ocean
  - * The commencement of negotiations on the ACSA, which will enhance the strategic depth of bilateral security and defence cooperation
- India, Japan would like to play a leading role in promoting peace and prosperity in the Indian Ocean region and the world

Agreement on Reciprocal Logistics Support (ARLS)

With Russia it is called Agreement on Reciprocal Logistics Support (ARLS).

- The pact was long pending given the deep defence and strategic cooperation between the two countries for a long time.
- The Indian Navy, with a significant strength of Russian origin warships, will be able to smoothly transit through for exercises or refits
  - * Russians could not only use ports like Mumbai and Vishakhapatnam for refuelling but also, airports after the agreement is signed
- The agreement gives India access to Russian facilities in the Arctic region which is seeing increased global activity as new shipping routes are opening up and resources are becoming available
  - * India is looking at an Arctic station in near future and Russia could be partner.
  - * Russia has also assured India access to energy resources in the vast Arctic region.
- The RLSA is more evidence of India's refusal to abandon its defence ties with Russia, despite American pressure.

- * Once this pact becomes successful India will become a rare nation that has such a strategic agreement with both of the old cold war rivals – the US and Russia.

Port access

- India signed the Logistics Exchange Memorandum of Understanding (LEMOA) with the U.S. in August 2016 after decade-long negotiations.
- Since then, it has concluded several such agreements with France, Oman, the Philippines and Singapore and gained access to the Sabang port in Indonesia.

Details

- Logistics agreements are administrative arrangements facilitating access to military facilities for exchange of fuel and provisions on mutual agreement, simplifying logistical support and increasing operational turnaround of the military away from India.
- The agreements with Australia and Russia will be broadly on the lines of the U.S. one, while the one with Japan is a broader defence cooperation agreement including logistics

Significance

- The biggest beneficiary of the logistics pacts has been the Navy which interacts and exercises the most with foreign navies.
- When operating on the high seas, exercises or during humanitarian assistance missions fuel, food and other needs can be exchanged and settled through the established modalities
- For instance, under LEMOA with the U.S., India has Standard Operating Procedures (SOP) which includes designating the points of contact for the U.S. military to work with, and a common account for payments.

17. U.S. Senate passes legislative provision to give India NATO ally-like status

Context

- The U.S. Senate has passed a legislative provision that brings India at par with America's NATO allies and countries like Israel and South Korea for increasing defence cooperation.

Details

- The National Defense Authorisation Act or NDAA for the fiscal year 2020 was passed by the US Senate
  - * The Act provides for increased US-India defence cooperation in the Indian Ocean in the areas of humanitarian assistance, counterterrorism, counter-piracy and maritime security.
- The US recognised India as a "Major Defence Partner" in 2016, a designation that allows India to buy more advanced and sensitive technologies from America at par with that of the US' closest allies and partners.

- In 2018, the Donald Trump-led administration granted India the status of Strategic Trade Authorization-1 (STA-1) country, the only South Asian nation to be given the designation along with the US' NATO allies. The move will ease export controls for high technology product sales to India.

18. What suits Trump? Kashmir mediation: Trump has violated diplomatic protocols

Context:

- In his meeting with the Prime Minister of Pakistan at the White House, Donald Trump offered to be a "mediator" between India and Pakistan on the Kashmir issue.
- Donald Trump said that Indian Prime Minister Narendra Modi mentioned the subject during their meeting in Osaka, Japan.

India's position on the Kashmir issue:

- India has consistently opposed third-party mediation in the Kashmir issue.
- New Delhi has always held that Kashmir is a bilateral dispute to be sorted out between India and Pakistan, and the US had previously upheld this stance.
- India has always opposed any suggestion of third-party mediation on Jammu and Kashmir; both the 1972 Shimla Agreement and the 1999 Lahore declaration included India's and Pakistan's commitment to resolving issues between them.

Minister of External Affairs

- Addressing Parliament, External Affairs Minister S. Jaishankar said India remains committed to its policy of discussing all outstanding issues with Pakistan only bilaterally, and assured the House that Mr. Modi did not raise this with Mr. Trump at their recent meeting in Osaka during the G-20 summit.

Why India does not want Mediation? - Background

- Nehru took Pakistan's invasion immediately after Independence in kashmir to the UN, to resolve the dispute of Kashmir
  - * But after he did he had had second thoughts about it.
- Subsequent UN missions, including the Dixon Mission which led to the Dixon Plan of 1950 for partition of some areas of Jammu & Kashmir between India and Pakistan, plus a plebiscite in the Valley, strengthened India's determination to shut the door to international mediation.

Violation of International Diplomatic Protocols

- Mr. Trump breached several well-laid diplomatic protocols, including one against discussing privileged conversations with a leader, during a public conversation with another.

- Mr. Trump also said a "lot" of his talks with the Pakistan Prime Minister would focus on India and Afghanistan, an odd departure from the precept of putting bilateral issues to the fore, and being more discreet when discussing sensitive relations involving other countries.
- For India it may be time to recognise that Mr. Trump's comments are a sign of new realities in international diplomacy, where leaders care less about niceties and more about open communication.

Why he could have so?

- In February 2019, the US president claimed to have successfully defused the India-Pakistan standoff that arose from the Pulwama attack, which led to Indian Air Force jets bombing a Jaish e Mohammed madrassa in Balakot, in Pakistani territory, which in turn led to a retaliation from the Pakistani Air Force and eventually to the capture of an Indian pilot who crash landed in PoK.
  - * The US is said to have played a part in release of captured fighter pilot Abhinandan by Pakistan.
  - * Which may have even given him some hope that the U.S. could play a larger role on the Kashmir issue
- The US also played a role in forcing China to agree to the designation of Jaish chief Masood Azhar as a terrorist.
  - * And most recently, he took credit for the arrest of Hafiz Saeed. Perhaps, the President of the United States thinks he has already resolved much of the problem.
- He may also believe that if his administration has succeeded in dragging the Taliban to the table in Afghanistan, so can it do the same with India and Pakistan.
- Mr. Trump's new contention is that he mistook India's appeal to the international community to hold Pakistan accountable for terror groups on its soil that carry out attacks in Kashmir, for a general desire for mediation.

Other Countries trying to mediate too

- The United Kingdom, which has a large diaspora from the PoK, has also shown interest in being a mediator.
  - * International interest in Kashmir has usually found expression when there's a vacuum in India-Pakistan engagement, when "nothing" seems to be happening on the bilateral front, and especially if the Kashmir issue is also on the boil in the same period, as it has been over the last five years
- 2018 apart from the UN Human Rights Council's stinging report on Kashmir, former Norwegian Prime Minister Kjell Magne Bondevik visited Srinagar, met with the separatist leadership there and, after returning, went on to visit Pakistan-occupied Kashmir.

Next course of action

- The government should pursue the issue through diplomatic channels with the U.S. government, and determine whether Mr. Trump made the comments out of confusion or deliberately.

- Mr. Modi will have to prepare accordingly for some plain-speaking when he visits the U.S. and meets with Mr. Trump

- How this will impact the present uneven relations between US-India remains to be seen. It will be for diplomats to manage the fallout if any.

SOCIAL ISSUES

1. **Having the last word on 'population control'**

    World Population Day

    - It is an annual event, observed on July 11 every year, which seeks to raise awareness of global population issues.

    - The event was established by the Governing Council of the United Nations Development Programme in 1989.

    - World Population Day aims to increase people's awareness on various population issues such as the importance of family planning, gender equality, poverty, maternal health and human rights.

    Context

    - A Union Minister recently on World Population day had expressed apprehension of what he called the "population explosion" in the country, wanting all political parties to enact population control laws and annulling the voting rights of those having more than two children.

    - A prominent businessman-yoga guru wanted the government to enact a law where "the third child should not be allowed to vote and enjoy facilities provided by the government". This, according to him, would ensure that people would not give birth to more children

    Economic Survey (ES) 2018-19

    - Both these demands are wayward and represent a distorted thinking which has been rebutted well in the Economic Survey 2018-19.

    - The Survey notes that India is set to witness a "sharp slowdown in population growth in the next two decades".

    - The fact is that by the 2030s, some States will start transitioning to an ageing society as part of a well-studied process of "demographic transition" which sees nations slowly move toward a stable population as fertility rates fall with an improvement in social and economic development indices over time.

    The demand for control on number of children can have negative impact on Society

    - It feeds on the perception that a large and growing population is at the root of a nation's problems as more and more people chase fewer and fewer resources.

    - This image is so ingrained in the minds of people that it does not take much to whip up public sentiment which in turn can quickly degenerate into a deep class or religious conflict that pits the poor, the weak, the downtrodden and the minorities against the more privileged sections.

    - This will lead to ugliest kind of discrimination, worse than physical attacks or social prejudice because it breaks the poor and the weak bit by bit, and in a very insidious way.

    - China had introduced one-child policy, which forced parents to pay fines, submit to abortions and raise children in secret. In 2015, a two-child policy was introduced to compensate, but the damage was done: China now faces a labor shortage and a rapidly aging population without enough caregivers, or taxpayers.

    What should be the state policy?

    - National Population Policy (NPP) was introduced in 2000 when Atal Bihari Vajpayee was the Prime Minister. The essence of the policy was the government's commitment to "voluntary and informed choice and consent of citizens while availing of reproductive health care services" along with a "target free approach in administering family planning services".

    - In fact in the year 2017 the then Minister of State (Health and Family Welfare in a written reply in the Lok Sabha noted that the "family Planning programme in India is target free and voluntary in nature and it is the prerogative of the clients to choose a family planning method best suited to them as per their reproductive right".

    Misconceptions about rising population

    - Family health, child survival and the number of children a woman has are closely tied to the levels of health and education of the parents, and in particular the woman; so the poorer the couple, the more the children they tend to have.

    - This is a relation that has little to do with religion and everything to do with opportunities, choices and services that are available to the people.

    - The poor tend to have more children because child survival is low, son preference remains high, children lend a helping hand in economic activity for poorer households and so support the economic as well as emotional needs of the family. This is well known, well understood and well established.

    - As the National Family Health Survey-4 (2015-16) notes, women in the lowest wealth quintile have an average of 1.6 more children than women in the highest wealth quintile, translating to a total fertility rate of 3.2 children versus 1.5 children moving from the wealthiest to the poorest.

* Similarly, the number of children per woman declines with a woman's level of schooling. Women with no schooling have an average 3.1 children, compared with 1.7 children for women with 12 or more years of schooling.

* This reveals the depth of the connections between health, education and inequality, with those having little access to health and education being caught in a cycle of poverty, leading to more and more children, and the burden that state control on number of children could impose on the weakest.

- As the latest Economic Survey points out, States with high population growth are also the ones with the lowest per capita availability of hospital beds.

Conclusion

- The damage done when mishandling issues of population growth is long lasting. Let us not forget that the scars of the Emergency are still with us.

- Men used to be part of the family planning initiatives then but after the excesses of forced sterilizations, they continue to remain completely out of family planning programmes even today.

- The government now mostly works with woman and child health programmes.

- Mistakes of the Emergency-kind are not what a new government with a robust electoral mandate might like to repeat. So it is time to ask some of the prejudiced voices within the government and ruling party not to venture into terrain they may not fully understand.

- Therefore larger population growth rates is a consequence of dire poverty and restrictions on women's ability to control their own fertility. Raising living standards globally, eradicating hunger and poverty, improving health care, providing access to education and achieving greater equality for women are all necessary to ensure there are lower birth rates.

2. **Making national legislatures more gender-balanced**

Introduction

- The Global Gender Gap report for 2018 said that the widest gender disparity is in the field of political empowerment.

- To cite the Inter-Parliamentary Union 2018 report, women legislators account for barely 24% of all MPs across the world.

Rwanda Example

- Rwanda, a landlocked nation with a population of 11.2 million, tops the list, with 61.3% seats in the Lower House and 38.5% in the Upper House occupied by women.

- Since 2003, the country has implemented a legislated quota of 30% in all elected positions, which has enabled a steady inflow of women parliamentarians after successive elections.

- Its Constitution has also set a quota of 30% in all elected offices.

- However, some believe that the higher representation of women in the country cannot be attributed solely to quotas — women were thrust into the political limelight due to the huge vacuum that emerged in the aftermath of the 1994 genocide, which resulted in a large chunk of the country's male population getting killed.

Cuba

- The largest Caribbean island nation with a population of about 11.1 million, holds the second rank, with 53.2 % seats of its 605-member single House being occupied by women representatives.

- The Communist dispensation in Cuba did not opt for legislated gender quotas, but does follow a practice akin to voluntary quota systems.

- However, Cuban women are less represented at the local level, where candidates are selected by the local communities that often overlook women candidates.

Sweden

- The fifth-rank holder in the IPU, has a professedly feminist government and has maintained a women's parliamentary representation of at least 40% since 90s.

- The 349-member single House, Swedish Parliament, now has 161 women with 46.1% representation. Sweden does not have any constitutional clause or electoral law earmarking representation for women in elected bodies.

- The issue of compulsory gender quota didn't find favour in Sweden as it was believed that such a quota will create reverse discrimination and violate the principles of equal opportunities.

- Almost all political parties there have adopted measures to ensure a fair representation for women at all levels.

- In 1993, the Social Democratic Party adopted the 'zipper system', described as "a gender quota system whereby women and men are placed alternately on all party lists." This further boosted women's seat share.

Nepal's example

- Closer home, Nepal occupies the 36th position in the IPU and its 275-member Lower House has 90 women, about 32.7% of the total strength.

- The Nepal Constitution stole a march over many others in the South Asia by earmarking 33% seats for women in all state institutions, including the legislature.

India

- India, at 149 among the 192 countries in the IPU list, had barely 11.8% women's representation in the 16th Lok Sabha, which improved to 14.5% in the current Lower House. At least seven out of the 29 States have not sent a single woman MP.

- The 108th Constitutional Amendment Bill stipulating 33% quota for women in the Parliament and in State Assemblies remains in political cold storage.

- The system of voluntary party quotas, which has worked well in many countries, is not likely to cut much ice in India's deeply embedded patriarchal society.

Conclusion

- As has happened in the case of panchayats and municipalities, only a legally mandated quota could perhaps ensure a large-scale entry of Indian women into the higher echelons of political power.

The Odisha model

Reservation of seats in electoral Politics

- The Biju Janata Dal (BJD)-led State government was among the first to reserve 50% of seats in Panchayati Raj institutions for women.

- Further, Odisha Chief Minister Naveen Patnaik nominated women for one-third of the seats in Lok Sabha election. Thus, seven candidates out of 21 fielded by the party for the 2019 election were women.

- The success rate among the women candidates was higher than for men, as five out of seven won the elections.

The power of self-help groups

Besides empowering women politically, the BJD government has been organising women into self-help groups in order to empower them economically ever since the BJD assumed power

- As of now, Odisha has six lakh self-help groups with seven million women under its flagship 'Mission Shakti' programme.
    * The programme aims at empowering women by helping them start income-generating activities.

- The self-help groups are linked to the Odisha Livelihoods Mission and Odisha Rural Development and Marketing Society.
    * Members of the self-help groups are encouraged to sell products at fairs and exhibitions organised by the State round the year.
    * This gives them an opportunity to travel across different parts of the State and gain greater exposure.

- The State government had announced an interest-free loan of ₹3 lakh in January 2019 to each of the self-help groups. This amount was increased to ₹5 lakh

- In a bid to win the trust of women and also to empower them, the Naveen Patnaik government has announced several sops like smartphones, award of work contracts, and higher entitlements in the State's health insurance scheme, arguably superior to the national level scheme, Ayushman Bharat.

- The State government has announced an accident insurance scheme for all members of self-help groups.

3. **Nearly half of sex offence cases not being investigated in time**

Context

- According to an analysis of crime data of seven States accessed by The Hindu Investigation, nearly half the sexual offences cases are not being completed within the stipulated 60-day period.

- Criminal Law (Amendment) Act, 2018 prescribes the time-limit for completion of investigation.

Details

- In many States, the Fast-Track Courts designated to handle rape cases are also handling other criminal cases leading to delay in verdicts

Investigation Tracking System for Sexual Offences (ITSSO)

- It is an online module available to law enforcement agencies at all levels- National, State, District and Police Station that allows State to undertake real-time monitoring and management for completion of investigation in rape cases in 2 months.

- ITSSO would greatly strengthen States ability for analytics and prognosis for timely investigation and prosecution in rape cases.

- It leverages the existing CCTNS data base, which covers nearly 15000 police stations in the country.

4. **Prevention of Cruelty to Animals (Care and Maintenance of Case Property Animals) Rules, 2017**

Background

- The center notified these rules in 2017.

- The rules were framed under the Prevention of Cruelty to Animals Act, 1960.
    * This law prevents inflicting of unnecessary pain or suffering on animals
    * The Act makes it a crime to beat, kick, torture, mutilate, administer an injurious Drugs and substances, or cruelly kill an animal.

What does the Rules say?

- The 2017 rules allow a magistrate to forfeit (seize and capture) the cattle of an owner facing trial under the Prevention of Cruelty to Animals Act.

- The animals are then sent to infirmaries, gaushalas etc.

- The authorities can further give such animals for "adoption".

- In short, a farmer or a traders loses his cattle even before he is adjudged guilty of cruelty under the 1960 Act.

Rules in conflict with law

- Under Section 29 of the Act, private cattle can be forfeited only after the owner is convicted and had faced a previous conviction.
- The Act says that an animal should be admitted to a shelter, etc., only if it is injured and requires treatment.
    * The animal has to be returned to the owner after treatment.
- Besides, Section 38A of the PCA Act required any rule made under the 1960 Act to be laid before the Parliament. This has not been done with the 2017 Rules.

Concerns

- It affects the farmers as it is means of livelihood for many families
- Emotional Bonding
- The rules' existence had emboldened "anti-social elements" to take matters into their own hands and loot cattle traders.
- These incidents are acting as triggers for communal polarisation of society, and if not halted effectively and immediately, will have disastrous consequences on the social fabric of the country,

Context

- An association of cattle traders and transporters has approached the Supreme Court against rules notified in 2017, which is being used as a tool to seize and forfeit their cattle.

5. Schools turn nutrition gardens in Mizoram district

Context

- The Deputy Commissioner of Lawngtlai, and her team designed a remedy for shortage of quality fruits and vegetables in the district, called: Kan Sikul, Kan Huan. In the Mizo language, it means 'My School, My Farm'.

Details:

- Lawngtlai is Mizoram's most backward and disaster-prone district.
- There is a shortage of quality fruits and vegetables with the deficiencies in the district's children belonging mostly to the Chakma and Lai ethnic minorities.
- Vegetables and fruits available in Lawngtlai town are costly.
- This is how the idea of involving school children, their parents and teachers to create a nutrition garden in each school developed.
- The aim is to make every school, Anganwadi, child care institution and hostel in Lawngtlai self-sufficient in the local variety of fruits and vegetables by March 2020. And also reduce malnutrition and stuntedness among children.

- The strategy is blending the Centre's Poshan Abhiyan with regular activities of departments such as Agriculture and Horticulture.
- Apart from the State government's farming experts, village heads and parents have also been asked to ensure the nutrition gardens function and the benefits are shared among the children.
- The role of the midday meal coordinator is to ensure that the children eat the produce from their respective gardens as far as possible.
- The programme does not involve expenses beyond providing the seeds of certain varieties of fruits and vegetables.
- The children are being taught manuring and making their own compost pit and the local people are providing water and other logistical help.

6. Van Dhan Vikas Karyakram

- It is an initiative targeting livelihood generation for tribal population by harnessing the wealth of forest i.e. Van Dhan.
- The programme aims to tap into the traditional knowledge and skill sets of tribal people by adding technology and Information Technology for upgradation of output at each stage and to convert the tribal wisdom into a remunerative economic activity.
- It seeks to promote and leverage the collective strength of tribal people to achieve a viable scale.
- Implementation of Van Dhan Vikas Karyakram is through Van Dhan Kendras.

7. Who can include castes in SC list?

How were Scheduled Caste and Scheduled Tribes identified prior to independence?

- On the basis of the 1931 census that the British government had conducted, the Government of India 1935 Act was promulgated.
- The reservation for the "Depressed Classes" was incorporated into the act, which came into force in 1937. This "Depressed class" later came to known as the Scheduled Caste.
- Scheduled Tribe were the 'tribes or communities' who were isolated from the rest of the communities and wouldn't abide to any religion. The British government in 1935 identified 'Schedule of Tribes' which consisted of different types of indigenous tribal groups i.e. Denotified tribes, criminal tribes, forest dwellers etc.
- By 1937 both the section were given positive affirmative action rights and political representation. After India got its independence, the Constitution continued the affirmative action for the 'depressed class' which were now termed as 'Scheduled Caste' and 'Scheduled Tribe'.

What does the Constitution of India state?

- According to the Constitution of India, under article 341(1), the President of India, after consultation with the Governor, may specify, "the castes, races, tribes or parts of groups within castes or races, which shall be deemed to be Scheduled Castes".

- Accordingly, the President has notified the Scheduled Castes in the order called 'Constitution (Scheduled Castes) Order-1950' and the 'Scheduled Castes and Scheduled Tribes List (Modification) Order-1956.

- However, under article 341(2), the Parliament of India by law can include or exclude the above-mentioned groups from the list of the Scheduled Castes.

- As per the procedure to make additions or deletions to the Schedule by amending the concerned Presidential Order for a state under Article 341(2), state governments first propose to modify the Schedule. Only proposals agreed by both the Registrar General of India and the National Commission for Scheduled Castes are introduced as a Bill in Parliament.

- This procedure was adopted by the Ministry of Social Justice and Empowerment in 1999 and was amended in 2002.

What does the Presidential Order of 1950 state?

- The order was called as the Constitution (Scheduled Castes) Order, 1950.

- The complete list of castes and tribes was made on order of 1950 which had certain norms and criteria for inclusion of other community later.

- However the Scheduled tribe list was put in updation due to partition as it was very difficult to identify tribals as they were geographically isolated. Thus, the list of Scheduled tribe was completely updated by 1958 with 744 enlisted tribes.

What does the order say on religion and how it affects conversion?

- Part 3 of the Presidential order of 1950 states that "no person who professes a religion different from the Hindu [the Sikh or the Buddhist] religion shall be deemed to be a member of a Scheduled Caste."

- This clearly lays down a religious barrier which states that any person who is not a Hindu, Buddhist or a Sikh, will not be entitled to reservation on the basis of being a Scheduled Caste.

- This is also the reason why most Dalits who convert to another religion, take up Buddhism as opposed to any other religion, so as not to leave the fold of reservations.

What about the backward classes?

- The First Backward Classes Commission was set up by a presidential order in 1953 under the chairmanship of Kaka Kalelkar. The commission submitted its report in 1955.

* It had prepared a list of around 2400 backward castes for the entire country and of which 837 had been classified as the 'most backward'. The commission also put some recommendations like reserving 70% of reservations for OBC in education.

- The second backward class commission was established in 1979, B.P Mandal as its chairperson.

  * The commission submitted its report in December 1980 which included both Hindus and non-Hindus, and consisted around 52% of the total population.

  * The Mandal Commission recommended 27% of reservation as the SC had set bar for reservation to not extend 50% in any case.

For identifying socially and educationally backward classes, the commission adopted the following criteria:

- Low social position in the traditional caste hierarchy of Hindu society.

- Lack of general educational advancement among the major section of a caste or community.

- Inadequate or no representation in government services.

- Inadequate representation in the field of trade, commerce and industry

Why is there a parallel Central and State OBC list in existence unlike the SC/ST list which is uniform for both state and the centre?

- According to PS Krishnan, who was the Secretary, Ministry of Welfare when the VP Singh government implemented the Mandal Commission Report in 1990, seeking to provide 27% reservations to socially and educationally backward classes, "The first Backward Classes Commission that is Kaka Kalelkar Commission gave its report in 1955. The then central government in 1961 said centre will not make a list of backward classes and the states can have their own list if they choose. The argument was that the five year plans were already undertaken will mainly benefit the backward classes and hence no such list was required."

- "This proved to be erroneous because it was subsequently proved that gap between SEdBC on one end and socially advanced castes on the other continues to be was very wide in every parameter of development and welfare, with SCs and STs at the bottom and SEdBCs far below the socially advanced castes.

What is the distinction between an OBC and an SC?

- This dichotomy did not exist in the case of SC and ST, thanks to Baba Saheb Ambedkar and distinguished administrative and demographic scholars especially Mr Hutton who in 1931 census listed SC on the criteria of caste subjected to untouchability which was brought into effect by Government of India Act 1935 with the drawing up of state wise central SC list.

- This was continued in the Constitution of India following which the 1951 Presidential Orders scheduling SCs and STs were issued.

- So there was a single list for SCs and STs issued by the centre, state wise, which could be amended only by an act of parliament.

- The yardsticks for recognising specific castes as SC and OBC are distinct. While extreme social, educational and economic backwardness are common qualifications for both groups, SCs draw such backwardness from untouchability. For OBCs, apart from social, educational and economic backwardness, lack of adequate representation in government posts and services is a criterion.

Context

- Uttar Pradesh: Yogi Adityanath government includes 17 OBC castes in SC list

8. 376E of the Indian Penal Code- Ignoring the proportionality principle

What does the law state?

- Under section 376E of the IPC, a repeat rape offender will have to be imprisoned for the rest of his life or sentenced to death.

- The Criminal Law (Amendment) Act, 2013, was introduced following the 2012 Delhi gang rape case.

- According to Criminal Law (Amendment) Act, 2013, whoever has been previously convicted of an offence punishable under section 376 (Punishment for rape) or section 376A or section 376D and is subsequently convicted of an offence punishable under any of the said sections shall be punished with imprisonment for life which shall mean imprisonment for the remainder of that person's natural life, or with death.

- These broader definitions were based on the Justice Verma Committee, which was constituted to enable quicker trials and harsher punishment for those accused of sexual assault.

Context

- Bombay High Court upheld the constitutional validity of Section 376E of the Indian Penal Code, thereby upholding the death sentence handed to the convicts of the Shakti Mills gang rape case.

Shakti Mills gang rape case

- It refers to the incident in which a 22-year-old photojournalist, was gang-raped by five people when she had gone to the deserted Shakti Mills compound, in South Mumbai

- Three of the men were found to have raped a 19-year-old telephone operator at the Shakti Mills compound, as well.

- After the conviction of the accused, the prosecution in the case moved to add Section 376E to three repeat offenders — Vijay Jadhav, Mohammad Qasim Shaikh and Mohammad Salim Ansari. The court awarded the death penalty to these three.

Proportionality Principle

- The constitutional standard that courts must apply when testing laws on the touchstone of Articles 14 (right to equality) and 21 (right to life) of the Constitution is that of "proportionality".

- In the context of criminal law and sentencing, proportionality asks whether a particular punishment strikes an adequate balance between the gravity of the crime, the interests of the victim and of society, and the purposes of criminal law.

- Further, the principle of proportionality calls for a striking down of laws that are excessively harsh or disproportionate.

Supreme Court Judgments

- In India, the threshold for a sentence to be disproportionate is that it must be "so inhuman or brutal that it cannot be accepted by any standard of decency," as laid down in Vikram Singh v. Union of India.

- In Modern Dental College case and the Aadhaar case — have made it clear that where the question of rights violations is concerned, the proportionality test has to be more detailed, and has four points:

  * First, there must be a legitimate state aim being pursued by the provision;

  * Legality – existence of a law

  1. The interference must have a legitimate goal (legitimacy stage)

  * Second, there needs to be a rational nexus between the impugned provision and the aim;

  1. It must constitute a suitable mean of achieving the goal (suitability stage)

  * Third, the impugned measure must be the least restrictive method of achieving the aim;

  1. There must not be any less restrictive but equally effective alternative (necessity stage)

  * Fourth, there must be a balance between the extent to which rights are infringed, and public benefit to be attained from the legislation.

  1. The measure must not have a disproportionate impact on the right holder (balancing stage).

In particular, the third prong asks whether there exists an alternative method of achieving the same goal that does not infringe rights to the same degree.

Adapting these principles to Shakti Mills case

- Given the permanent and irrevocable nature of the death penalty, there arose a fundamental question. This pertained to whether the legislative objective, of increasing the punishment for a certain category of offences to demonstrate social abhorrence towards such offenders, and to create deterrence, could be adequately fulfilled by a sentence of life imprisonment.

- However, instead of addressing this issue, the Court

relied entirely on the fact that the law had been passed with the intention of deterring rapes.

- While it is true, in general, that in questions of criminal sentencing, there is a broad presumption in favour of the state, simply stopping at that is not adequate for a court.

- Proportionality by its very nature prevents a complete deference to the state when it comes to adjudicating on the violations of fundamental rights.

- However, the Court did not at any point scrutinise the reasons that would have potentially justified the state's decision to go for death penalty in the case of a non-homicidal crime.

- Another striking aspect of the judgment is the Court's discussion of the severe effect of rape on women and society. The court declaimed that rape is far worse than murder, and used that notion to hold that the death penalty was proportionate.

  * While Non-Homicidal Crimes might be devastating in the harm that they cause, they cannot, as stated by the U.S. Supreme Court in the Kennedy v. Louisiana case (2008), compare to murder in their "severity and irrevocability".

Ignoring the American parallels

- The American judgments specifically dealt with intricate issues, such as proportionality and harm principle, and the manner in which a court must probe the aims and objectives achieved by such a provision.

- It would have been a beneficial exercise for the Bombay High Court to deal with those arguments.

Death Penalty should be rare not a norm

- As courts around the world, including the Indian Supreme Court, have recognised, death penalty is a form of punishment qualitatively different from any other.

- It is permanent and irrevocable, rules out any possibility of correcting an error if found later, and denies the possibility of reform and rehabilitation.

- It is for this reason that the Supreme Court has repeated many times that the death penalty must only be imposed in the "rarest of rare" cases, and this is also why the recent proliferation of statutes expanding the scope of the death penalty, often as knee-jerk responses to public outrage, is a cause for concern.

Conclusion

- In this situation, it is of utmost importance for courts to scrutinise such laws carefully, and on the touchstone of constitutional standards.

- In this regard, the Bombay High Court's judgment falls short. It engages in excessive deference to the 'will' of the state and does not enter into any judicial analysis of whether the death penalty in these circumstances was at all justified under the doctrine of proportionality, and whether any other lesser form of punishment would have sufficed

SCIENCE AND TECHNOLOGY

1. Central Equipment Identity Register (CEIR)

Context

- The Centre for Development of Telematics (C-DoT) is planning to launch a tech solution to track down stolen mobile phones and discourage counterfeiting and theft of such devices.

International Mobile Equipment Identity (IMEI)

- Every phone or mobile device has this unique 15 digit code that precisely identifies the device
- Phones are identified based on the IMEI number, which you can find under the battery in many mobiles or by dialling '*#06#' on the device.
- Mobile phone manufacturers assign IMEI numbers to each device based on ranges allotted to them by the Global System for Mobile Communications Association. Dual SIM phones will have two IMEI numbers.

How will it work?

- Based on a 2008 order from the DoT, every mobile network provider in India has an Equipment Identity Register (EIR), or a database of the phones connected to its network.
- These EIRs will now share information with a single central database, the CEIR.
- In essence, it will be a repository of information on all mobile phones connected to networks across India.

What is the purpose of a CEIR?

- Currently, when a customer reports a mobile phone as missing or stolen, mobile service providers have the ability to blacklist the phone's IMEI in their EIRs and block it from accessing their network.
- But if the SIM is changed to a new network, it can continue to be in use. With a CEIR, all network operators will be aware that the phone is blacklisted.
- CEIR will have information on the device's IMEI number model, version, and "other information". It will also know if the phone is blacklisted, and the reason why it has been blacklisted.
- Such centralised databases are meant to identify and block stolen or illegal mobile phones across networks.
- The concerned phone will then not receive signal or connection

Steps to be taken by customer

- If a phone is stolen, a complaint can be lodged with the police by the customer whose phone has been stolen, and the Department of Telecommunications (DoT) can be informed via the helpline number.

What are the issues with having a CEIR?

- Who should maintain such a high-value database? Should it be the service provider, or a neutral third party?
- Another major issue is cloning, or reprogramming stolen or unauthorised mobile phones to attach existing genuine IMEI numbers.
  * Blocking cloned IMEI numbers could result in the authentic ones also being blocked. While the actual numbers on phones in circulation with cloned or inauthentic IMEIs are hard to pin down

Prevention of tampering of the Mobile Device Equipment Identification Number, Rules, 2017

It shall be unlawful, if a person, except the manufacturer

- intentionally removes, obliterates, change, or alter unique Mobile Device Equipment Identification Number; or
- Intentionally use, produce, traffic in, have control or custody of, or possess hardware or software, knowing it has been configured as specified above.
- The rules have been framed in combination of section 7 and section 25 of the Indian Telegraph Act.
  * The section 7 gives DoT power to make rules for conduct of telecom or telegraph services
  * Section 25 deals with damaging of telegraph line, machines and related equipment with provision of punishments of up to 3 years of imprisonment or fine or both.

Preventing cloning

- However, tools to reprogramme phones remain available online, and cases of such activities are reported frequently.
- On this issue, the DoT memorandum of 2017 says the IMEI Cloning and Duplication Restriction (ICDR) software is to be integrated in the CEIR.

2. Chandrayaan 2 Mission

- It is India's uncrewed Indian lunar mission which aims to get a better understanding of the Moon's origin and its evolution by conducting topographical studies and mineralogical analyses alongside a few other experiments on the Moon's Surface. According to ISRO, the mission Chandrayaan 2 will also foster the findings of Chandrayaan 1.
  * While a few mature models do exist, the Moon's origin still needs further explanations. Extensive mapping of the lunar surface will aid us in studying variations in its composition — an essential piece of information in tracing the Moon's origin and evolution.

- The Chandrayaan 2 mission will target a completely unexplored section of the Moon that is, its "South Polar region".

    * The mission is being considered as a challenge as no space agency has ever thought of exploring the South Polar Region of the Moon

- The name Chandrayaan means Moon vehicle.

Why go to the Moon?

- The Moon is the closest cosmic body at which space discovery can be attempted and documented.

- It is also a promising test bed to demonstrate technologies required for deep-space missions.

Launcher

- Geosynchronous Satellite Launch Vehicle Mark-III (GSLV Mk-III)

Its components are:

- S200 solid rocket boosters

- L110 liquid stage

- C25 upper stage

Why Chandrayaan-2 is composed of three modules

The orbiter, the Vikram lander (named after Vikram Sarabhai, the late father of India's space program) and the Pragyan rover (named after the Sanskrit word for wisdom).

- From orbit, instruments will create detailed three-dimensional maps of the surface, both to

    * ascertain the safety of potential landing sites and

    * To track the distributions of water molecules, hydrated minerals and other materials of interest on and around the moon.

- If touchdown is successful, the Vikram lander will serve as a listening station for seismic waves from moonquakes, which could reveal more details about the structure of the lunar core, mantle and crust.

- Further studies are set to take place via the Pragyan rover, which is meant to drill into the surface to gather samples for additional mineralogical and chemical analysis.

The orbiter, lander and rover will collectively carry 14 scientific payloads, including a Laser Retroreflector Array from NASA to provide precision measurements of the distance between Earth and the moon

Soft-Landing

- A soft-landing occurs when the rocket is designed to touch down as gently as possible.

- India would join the U.S., China and the former Soviet Union on the list of countries that have completed a "soft" moon landing, or a touchdown that doesn't result in a crash landing.

- There have been 38 attempts so far at "soft-landing" on the moon, with a success rate of 52% according to the ISRO

How will the mission study the moon?

- Using the Terrain Mapping Camera 2 which is on board the orbiter, the mission will produce images of the moon remotely from a 100 km lunar polar orbit.

- While the moon rotates about its axis, along its east-west direction, say, the lunar polar orbit will be in the perpendicular direction, along the lunar north-south direction.

- Thus, as the moon rotates, the orbiter gets a view of its entire surface from overhead. This data collected by the orbiter will be used to produce a 3D image of the moon's terrain.

- This is just one of the eight instruments, or payloads, on board the orbiter. The lander carries three such payloads, some of which will measure the electron density and temperature near the lunar surface; the vertical temperature gradient, and seismicity around the landing site.

Here are the reasons why Chandrayaan 2 is on a mission to explore the Moon's South Polar Region and why it's a huge challenge:

1. The Dark Side of the moon – the importance of exploring

- Chandrayaan 2 will use rocket technology in a suitable high plain on the lunar surface, between two craters, Manzinus-C and Simpelius N, at a latitude of about 70º South.
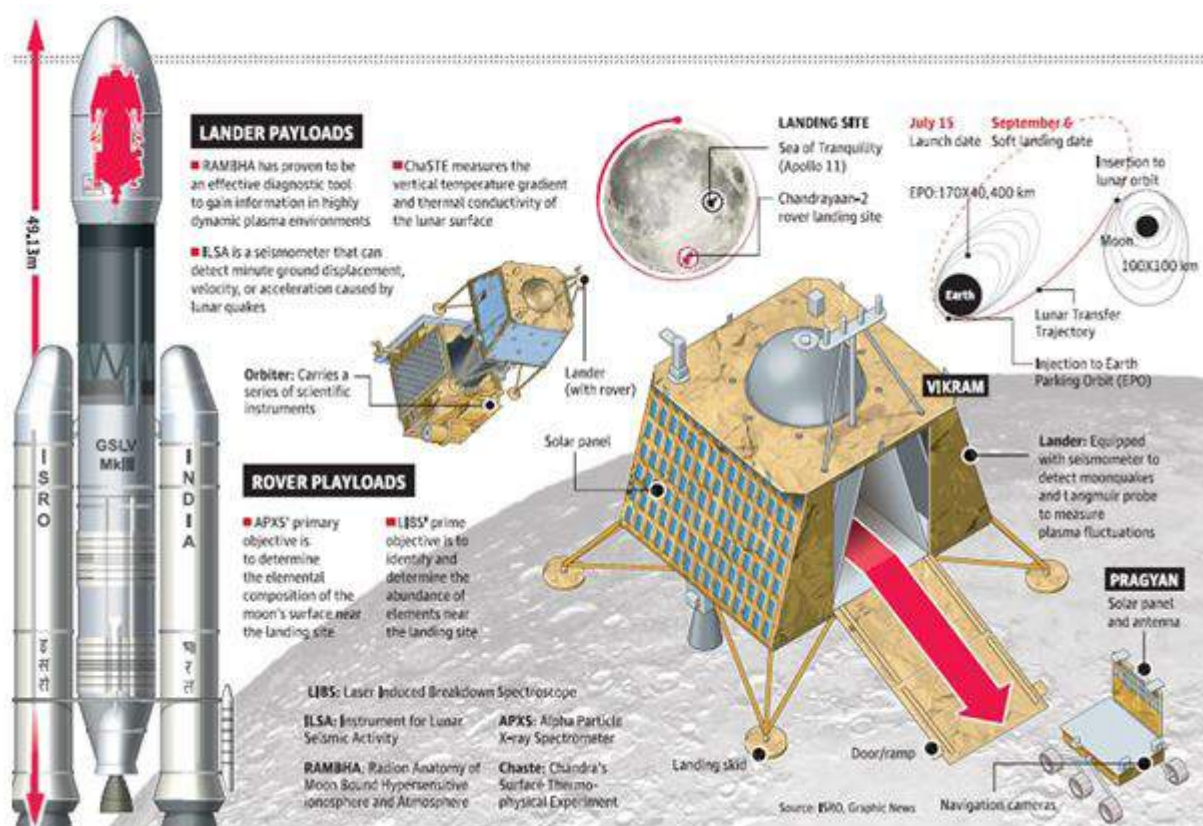
- Due to the moon's axis, few regions on the South Pole remains forever dark especially the craters and have higher chances of containing water.

- The bottom of the polar craters of remain under shadows permanently because of the low angular tilt of the axis (1.54-degree tilt in comparison to earth's 23.5 degrees).

- Hence the temperature at the poles remains frigid, hitting as low as -248 degree Celcius. That makes it among the lowest temperatures in the Solar System.

- The sunlight strikes at very low angles in the Polar Regions and thus the craters might have never received sunlight, thereby increasing the chances of presence of ice on such surfaces.

- The moon's South Pole is especially interesting because the lunar surface area at the south pole of the Moon that remains in shadow is much larger than that of its north pole. This increases the possibility of the presence of water in permanently shadowed areas around it.

2. Totally Uncharted Territory

- No one has ever explored the South Polar Region of the Moon. In all the space missions, be it manned or unmanned, no country has ever attempted to land a spacecraft in the polar regions of the moon.

- The South Polar Region is far from the equator and it is totally uncharted till now. This could give India a lead in space exploration on an international level.

- The South Pole region has craters that are cold traps and contain a fossil record of the early Solar System.

Significance

- The success of the mission is going to boost national morale and contribute to [India's] scientific endeavors in ways ranging from academic research to national security.

- The mission is completely indigenous, with heavy participation from the private sector and academia, involving young scientists from across the country—a reflection of India's rising scientific temper

Chandrayaan-1 Vs Chandrayaan-2

- Chandrayaan-1 was launched by India's Polar Satellite launch Vehicle -- PSLV-C11 in 2008 from the Satish Dhawan Space Centre, Sriharikota.

  * On the other hand, Chandrayaan-2 will be launched by the GSLV Mk-III

- The Chandrayaan-1 spacecraft made more than 3,400 orbits around the Moon. Chandrayaan-1 was operational for 312 days till August 29, 2009.

  * Chandrayaan-2's orbiter will continue its mission for around a year.

- There were 11 scientific instruments onboard the Chandrayaan-1 spacecraft. Five of them were Indian while the others were from European Space Agency (ESA), National Aeronautics and Space Administration (Nasa) and Bulgarian Academy of Sciences.

  * Chandrayaan-2's orbiter carries eight scientific payloads for mapping the lunar surface and to study the exosphere (outer atmosphere) of the Moon. The lander carries three scientific payloads to conduct surface and subsurface science experiments. The rover carries two payloads to enhance our understanding of the lunar surface. A passive experiment from Nasa will also be carried onboard Chandrayaan-2.

- Chandrayaan-1 conclusively discovered traces of water on the Moon. This was a path-breaking discovery. Chandrayaan-1 also discovered water ice in the north polar region of the Moon. It also detected magnesium, aluminium and silicon on the lunar surface. Global imaging of the Moon is another achievement of Chandrayaan-1 mission.

  * Chandrayaan-2 aims to widen the scientific objectives of Chandrayaan-1 by way of soft landing on the Moon and deploying a rover to study the lunar surface.

A Legacy of Chandrayaan-1

- August 15, 2003: Chandrayaan programme is announced by Prime Minister Atal Bihari Vajpayee.

- October 22, 2008: Chandrayaan-1 takes off from the Satish Dhawan Space Centre at Sriharikota.

- November 8, 2008: Chandrayaan-1 enters a Lunar Transfer Trajectory.

- November 14, 2008: The Moon Impact Probe ejects from Chandrayaan-1 and crashes near the lunar South Pole - confirms presence of water molecules on Moon's surface.

- August 28, 2009: End of Chandrayaan-1 programme.

Timeline of Chandrayaan-2 Mission

- September 18, 2008: Prime Minister Manmohan Singh approved the Chandrayaan-2 lunar mission.

- July 9, 2019: Launch window opens

- September 6, 2019: Chandrayaan-2 is expected to land on the Moon.

3. **crAssphage**

- crAssphage (cross-assembly phage) is a bacteriophage (virus that infects bacteria) that was discovered in 2014

- It infects species of Bacteroides, a group that makes up 50% of gut bacteria on average and behaves as both good and bad bacteria.

- Most of the time the relationship is mutually beneficial: we provide a home, they help digest our food. But they can also be harmful, being associated with health issues such as diabetes and obesity.

Context

- The study published in the journal Nature Microbiology showed that the virus was found in the sewage of more than one-third of the world's countries may have co-evolved with human lineage.

- Additionally, the make-up of the virus can vary depending on the country and city.

4. How micro RNAs regulate the colour of fruits, leaves?

Context

- A team from the National Centre for Biological Sciences (NCBS), Bengaluru, has found that the rich colour in fruits and leaves of plants are indirectly controlled by specific micro RNAs — miR828 and miR858.

Details

- Grape plants bear fruits having colours that can be deep purple or green. This colour is due to compounds called anthocyanins and flavonols, both of which are present in grape fruits.

- When the grape plant has a high amount of anthocyanin as compared to flavonol, the fruits are deep purple. When the reverse is true, the grapes are not brightly coloured.

- The relative abundance of anthocyanin and flavonol is controlled by genes known as the MYB transcription factors. Also referred to as activators, when present in large amounts, they result in dark purple grape as in the Bangalore Blue variety, and absence correlates with lack of bright colour but high incidence of flavonols as in the Dilkhush grape variety.

Micro RNAs

- They are regulators of gene expression, acting like switches.

- They decide which protein should be made and how much in a given cell or tissue or an organism.

- They are tiny, having some 20 to 22 digits of RNA. The miRNA inhibit target RNAs by cutting them into two bits in plants. The miRNAs partner with a protein called Argonaute to do this regulation.

Biofortification

- Biofortification is the process by which the nutritional quality of food crops is improved through agronomic practices, conventional plant breeding, or modern biotechnology.

- Biofortification differs from conventional fortification in that biofortification aims to increase nutrient levels in crops during plant growth rather than through manual means during processing of the crops.

- Biofortification may therefore present a way to reach populations where supplementation and conventional fortification activities may be difficult to implement and/or limited.

5. Hubble Space Telescope

- It is a space telescope that was launched into low Earth orbit in 1990

- The Hubble telescope is named after astronomer Edwin Hubble

- Hubble features a 2.4-meter (7.9 ft) mirror, and its four main instruments observe in the ultraviolet, visible, and near infrared regions of the electromagnetic spectrum.

- The Hubble telescope was built by the United States space agency NASA with contributions from the European Space Agency.

- Hubble does not travel to stars, planets or galaxies. It takes pictures of them as it whirls around Earth at about 17,000 mph.

- Hubble is 13.3 meters (43.5 feet) long — the length of a large school bus.

6. International Astronautical Federation (IAF)

- IAF is an international space advocacy and non-governmental organisation based in Paris.

- IAF, established in 1951 to foster the dialogue between scientists around the world and support international cooperation in all space-related activities

- It is the world's leading space advocacy body with 366 members, including all key space agencies, companies, societies, associations and institutes across 68 countries.

Context

- A delegation of IAF met the Union Minister Dr Jitendra Singh.

- The delegation extended invitation to the Minister to participate in the upcoming International Astronautical Congress (IAC)

- IAC-2019 will be held in Washington D.C., USA

International Astronautical Congress (IAC)

- The IAC is the biggest annual Space event in the world attracting more than 6000 participants, including leaders of Space agencies and industry; young professionals and students.

- Each year International Astronautical Federation (IAF) in collaboration with the International Academy of Astronautics (IAA) and the International Institute of Space Law (IISL) organize the IAC.

- IAC serves as a platform for knowledge sharing in astronautics, and broadening international cooperation.

- Each year the IAC is held in different countries with an IAF member organization serving as its host.

  * Every year IAF invites proposals from its member organizations for hosting the IAC.

  * IAF discussed the possibility of holding IAC in India in near future.

  * India has the experience of hosting IAC twice earlier, in 1988 at Bangalore and in 2007 at Hyderabad.

7. International Charter 'Space and Major Disasters'

- It is a non-binding charter through which satellite data are made available for the benefit of disaster management

- By combining Earth observation assets from different space agencies, the Charter allows resources and expertise to be coordinated for rapid response to major disaster situations; thereby helping civil protection authorities and the international humanitarian community.

- It was initiated by the European Space Agency and the French space agency CNES after the UNISPACE III conference held in Vienna, Austria in 1999

Context

- India has received satellite data on its flood-hit regions from eight nations, including the US, China and Russia, as part of a multilateral mechanism for sharing space-based data for countries affected by natural or man-made disasters

Details

- As signatories to the International Charter Space and Major Disasters, any of the 32 member countries can send a 'request' to activate the Charter.

- This would immediately trigger a request by the coordinators to space agencies of other countries whose satellites have the best eyes on the site of the disaster.

- This was a "standard practice" and in the past ISRO too had provided information to other space agencies in response to similar requests.

  * In August 2014, for instance, ISRO's CARTOSAT shared images after an activation request from China after an earthquake struck Yunan province and killed 398.

- The National Remote Sensing Center (NRSC) represents the Indian Space Research Organisation (ISRO) as a member of the charter which has been set up under the UN-SPIDER (United Nations Platform for Space-based Information for Disaster Management and Emergency Response)

8. ISRO Technical Liaison Unit at Moscow

Context

- The Union Cabinet has approved the setting up of ISRO Technical Liaison Unit (ITLU) at Moscow, Russia.

Background:

- Department of Space has instituted technical Liaison Units, namely ISRO Technical Liaison Units (ITLU) at Washington, USA and Paris, France with the prime objective to liaise with various Government and space agencies in USA and Europe, respectively.

- Space cooperation has been one of the major links between India and Russia almost from the beginning of the space era and currently both sides are actively pursuing interactions in diversified areas of space programme

- Apart from intensifying cooperation with Russia, India has expanded its space cooperation with countries near to Russia. This calls for extensive uninterrupted coordination & interface support for increased level international technical collaboration.

About the unit

- The ISRO Technical Liaison Unit (ITLU) at Moscow will enable effective technical coordination for timely interventions on diversified matters with Russia and neighboring countries for realization of the programmatic targets of ISRO.

- The Liaison Officer, deputed at ITLU from ISRO provides technical information about the developments in research and technology and inputs arising from their meetings with researchers, government agencies and industries in the respective countries.

- They also support the ongoing bilateral programmes of cooperation in space technology and act on behalf of ISRO on the matters referred.

Advantages

- ISRO will be able to collaborate with Space agencies/industries in Russia and neighboring countries for mutually synergetic outcomes.

- ISRO's Gaganyaan programme requires development of some of the key technologies and establishment of specialized facilities, which are essential to support life in space.

- Keeping in view the 15th August, 2022 timeline for realization of the Gaganyaan human space programme, it is prudent to avail technical cooperation from International space agencies, who have already demonstrated their technical capabilities in specific areas.

- Russia, being one of the space-faring nations, it is envisaged to collaborate with Russia extensively in various fields of relevance.

9. MOU between ISRO and Other Space Agencies

Context

- The Union Cabinet has given its ex-post facto approval to the Memorandum of Understanding (MoU) signed between India and Bolivia also India and Bahrain on Cooperation in the Exploration and Uses of Outer Space for Peaceful Purposes".

Details of MOUs

- These MoUs shall enable the following potential interest areas of cooperation such as,

  * space science, technology and applications including remote sensing of the earth;

  * satellite communication and satellite-based navigation;

  * Space science and planetary exploration;

  * Use of spacecraft and space systems and ground system; and application of space technology.

- The MoU with Bolivia would lead to setting up a Joint Working Group, drawing members from ISRO and the Bolivian Space Agency (ABE), which will further work out the plan of action including the time-frame and the means of implementing this MoU.

- The MOU with Bahrain would lead to set up a Joint Working Group, drawing members from DOS/ISRO and the Bahrain National Space Science Agency (NSSA) of the Government of the Kingdom of Bahrain, which will further work out the plan of action including the time-frame and the means of implementing this MoU.

Impact

- The signed MoU will provide impetus to explore newer research activities and application possibilities in the field of remote sensing of the earth; satellite communication; satellite navigation; space science and planetary exploration.

Benefits

- This MoU would lead to develop a joint activity in the field of application of space technologies for the benefit of humanity. Thus, all sections and regions of the country will get benefited.

10. New Space India Limited

Background

- The Union Government has set up New Space India Limited (NSIL), a wholly-owned Government of India undertaking/ Central Public Sector Enterprise (CPSE), under the administrative control of Department of Space (DOS)

Impact

- To commercially exploit the research and development work of Indian Space Research Organisation (ISRO) Centres and constituent units of DOS.

- The emergence of NSIL would spur the growth of Indian industries in the space sector and enable Indian industries to scale up manufacturing and production base.

Roles and functions

- Small Satellite technology transfer to industry, wherein NSIL will obtain license from DOS/ISRO and sub-license it to Industries

- Manufacture of Small Satellite Launch Vehicle (SSLV) in collaboration with Private Sector

- Productionisation of Polar Satellite Launch Vehicle (PSLV) through Indian Industry

- Productionisation and marketing of Space-based products and services, including launch and application

- Transfer of technology developed by ISRO Centres and constituent units of DOS

- Marketing spin-off technologies and products/services, both in India and abroad

- Any other subject which Government of India deems fit.

11. Oumuamua

- It is the interstellar object detected passing through the Solar System.

- It was first detected by the University of Hawaii's Pan-STARRS1 telescope.

- Its name in the native Hawaiian language means a messenger arriving from a great distance.

- The object could be a remnant of a disintegrated rogue comet (or exocomet)

12. Senescent Cells

One of the most significant biological processes behind aging is Cellular Senescence. To maintain health, most cells in the body continually divide to replace old and damaged tissue. But eventually cells age and stop dividing. The cells that have stopped the normal biological process of dividing are called Senescent Cells.

- They are the opposite of stem cells: they can never divide again.

- New research finds that ageing, senescent cells stop producing nucleotides, the building block of DNA.

- When young cells were prevented from producing nucleotides, the cells became senescent.

- The findings have potential to help with ageing and related diseases.

13. Spektr-RG

- Spektr-RG (Russian for Spectrum + Röntgen + Gamma; also called Spectrum-X-Gamma, SRG, SXG) is a Russian/German high-energy astrophysics space observatory

- The Spektr-RG, developed with Germany, is a space observatory intended to replace the Spektr-R, known as the "Russian Hubble"

- The spacecraft will enter an orbit around the Sun, at the L2 Lagrangian point, about 1.5 million kilometers away from Earth, with the Earth shading it from sunlight.

What it intends to do?

- Spektr-R was launched in 2011 to observe black holes, neutron stars and magnetic fields. Its successor will take up similar duties.

- It will provide fresh insights on the accelerating behaviour of cosmic expansion.

- A key goal of Spektr-RG will be to investigate the mysterious cosmic components referred to as "dark matter" and "dark energy".

14. Transiting Exoplanet Survey Satellite (TESS)

- An exoplanet is a planet that orbits a star outside our solar system.

- It is search for planets outside of our solar system, including those that could support life initiated by NASA.

- The satellite will monitor more than 200,000 stars for temporary drops in brightness caused by planetary transits.

- TESS hunts for exoplanets using the method known as Transit Photometry

    * This involves observing distant stars for sudden dips in illumination, which are indications of a planet passing in front of the star (i.e. transiting) relative to the observer.

    * By observing the extent and frequency of the dips, scientists are able to determine the existence of planets, as well as their orbital period and size.

    * Repetitive, periodic dips can reveal a planet or planets orbiting a star.
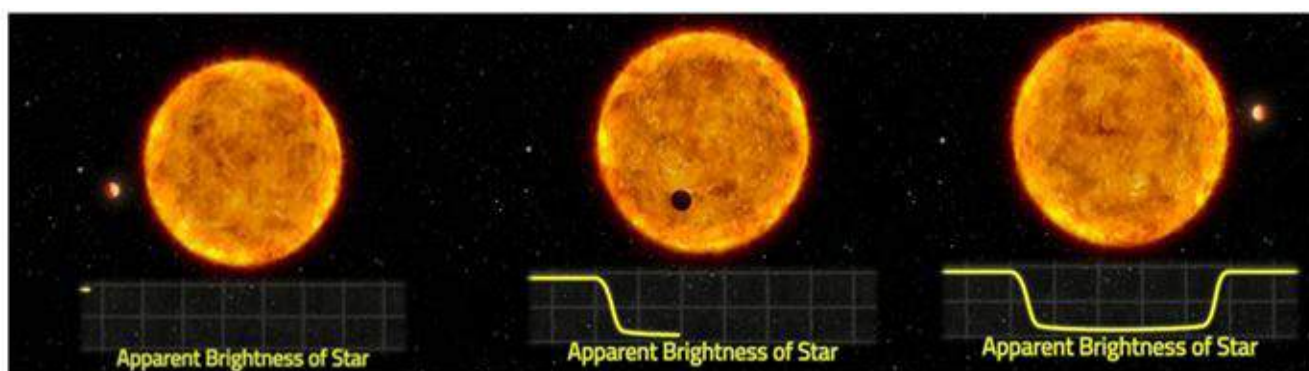
-

Apparent Brightness of Star   Apparent Brightness of Star   Apparent Brightness of Star

SECURITY AND DEFENCE

1. Advanced Short Range Air-to-Air Missile (ASRAAM)

Context

- The Indian Air Force (IAF) is looking to adopt a new European visual range air to air missile across its fighter fleet.

Background

- There is growing gap between India and Pakistan when it comes to fighter aircraft as witnessed during Balakot dogfight.
- In order to bridge the missile gap between the IAF and the Pakistan Air Force (PAF), which displayed an edge with better weapons that had higher standoff ranges (the distance from which a missile can be fired without entering the attack range of the other side).

Details

- The missile is designed and built by MBDA UK to provide enhanced aerial combat capabilities for fighter aircraft.
- Weighing 88 kg, ASRAAM is a Within-Visual-Range (WVR) dominance weapon with a range of over 25 km.
- It accepts target information via aircraft sensors, such as radar or helmet-mounted sight, but can also act as an autonomous infrared search and track system.
- It would be the first over the wing launched missile in the IAF inventory. All missiles are now fired from under the wing.
- It is currently in service in the Royal Air Force (RAF) and Royal Australian Air Force (RAAF)
- The IAF chose the ASRAAM in 2013 after a contest that involved the Israeli Python, the German Diehl IRIS-T and American Raytheon AIM-9X Sidewinder.
- The ASRAAM has been approved for fitting on Jaguar jets and the IAF was looking to integrating it on the Su-30MKIs and the indigenous Light Combat Aircraft (LCA) as well.

2. Defexpo India

- Defexpo India - an international land, naval and internal homeland security systems exhibition
- The shows are conducted at an international level, which not only facilitates Business-to-Business (B2B) interaction with senior foreign delegations but also Government-to-Government (G2G) meetings and signing of Memorandums of Understanding (MoUs).
- The DefExpo will provide an opportunity to the major foreign Original Equipment Manufacturers (OEMs) to collaborate with the Indian defence industry and help

promote 'Make in India' initiative

- More than 80 countries will showcase their defence prowess during the expo.
- Till 2016, all defence expos had been held only in New Delhi. When Manohar Parikkar was defence minister, it was held in Goa (in 2017).

2019

- The 11th biennial edition of DefExpo India-2020 held for the first time in Uttar Pradesh's capital Lucknow.
- Main theme of the DefExpo India-2020 will be 'India: The Emerging Defence Manufacturing Hub' and focus will be on 'Digital Transformation of Defence'.

3. International Security Alliance (ISA)

- The ISA, which was launched in Abu Dhabi in 2017, is an international working group to confront organised, transnational and extremist crimes through joint security cooperation projects and the exchange of expertise on the practices implemented across these countries.
- The alliance now comprises nine countries, the UAE, France, Italy, Bahrain, Morocco, Spain, Senegal, Singapore, and Slovakia.
- The Alliance Secretariat is located in Abu Dhabi, UAE

4. LCU L-56

Context

- Indian Navy Ship LCU L-56, the sixth of the Landing Craft Utility (LCU) MK IV class ships, was commissioned into the Indian Navy

Details

- LCU 56 is an amphibious ship with its primary role being transportation and deployment of main battle tanks, armoured vehicles, troops and equipment from ship to shore.
- With a displacement of 900 tonnes, the ship measures 62 metres in length and is fitted with two MTU diesel engines, which provide a sustainable speed of over 15 knots. The ship is equipped with the state-of-art equipment and is armed with two 30 mm CRN-91 guns manufactured by Ordnance Factory
- The induction of LCU 56 will add to maritime and HADR (Humanitarian Assistance and Disaster Relief) capability of ANC (Andaman Nicobar Command), as the ship will be deployed for multi-role activities such as beaching operations, search and rescue missions, disaster relief operations, coastal patrol, and surveillance operations along the Andaman and Nicobar Group of Islands

- GRSE (Garden Reach Shipbuilders and Engineers) has become the first shipyard in the country to have built the 100th warship.

5. Not a bloodless option for India

Introduction

- Amidst U.S.-Iran tensions, an American drone was shot down by Iran's Islamic Revolutionary Guard Corps

  * A military strike was planned, and even authorised, but later called off by Mr. Trump who apparently favours bloodless wars.

- In pursuance of this bloodless war, the U.S. cybercommand conducted online attacks against Iran. It is speculated that the strikes targeted Iran's military command and systems such as those that control Iran's missile and rocket launchers

In this context, a general question that arises is: Can India conduct such retaliatory attacks?

After every terror attack, India has few kinetic options to retaliate.

- Primarily, they comprise air strikes, ground-based surgical strikes, stand-off strikes from inside the border and covert operations.

- Additionally, there is the option to impose diplomatic pressure on Pakistan.

Probably the time has come to look at 'diplomacy plus' and 'war minus' solution.

The implicit criteria

The criteria are: pre-emption (Stall it, stop it and preventing an event from occurring), non-military nature, and deterrence.

- First, the fulfilment of the criterion of pre-emption would allow India to argue and justify the operation on international forums.

  * It feasibly falls under the exception of Article 2(4) of the UN Charter through the passage of self-defence.

- Second, in such instances, the operational aim has never been to target the Pakistani people or even the Pakistani military.

  * Accordingly, it is imperative for any operation to be able to claim that it is non-military in nature.

- Third, the operation should be of such an impact that it creates deterrence, that is, it fulfils the purpose of imposing substantial damage on the enemy, which invariably leads to deterrence.

Is cyber strike against Pakistan a good option?

- The conduct of U.S. cyber command was aimed at the Iranian establishment, specifically targeting its military installations.

- If India conducts a cyberstrike against Pakistan's military command or systems, it will be termed as one against Pakistan and not the terrorists. The non-military nature and pre-emption of the operation will be viewed through the perspective of attacking Pakistani military and Pakistan in essence, rendering them as futile, for example in terms of diplomatic parleys.

- Further, a cyberstrike against Pakistan will call for counter-cyberstrikes. Instead of the intended deterrence, it will likely lead to an escalation. In such a situation, all or at least most of the criteria will not be met.

- Hence, a cyberattack is not a feasible retaliatory option for India at present.

Focus on terrorism

- It is, however, noteworthy that the dependency of terrorist groups on computers, networks and the Internet has increased.

- Various, if not all, terrorist groups use the Internet for propaganda. This can certainly be curtailed by any necessary cyber operation.

  * Networks like D-company which is known to have wider international reach (spot fixing in Cricket is possible provided a communication network is available for a real time data transfer) could be effectively targeted.

- Most importantly, such an operation should not be a 'retaliatory operation' but a 'regular operation'.

Conclusion

- As a policy option India should articulate the need to develop the "first-use option". It needs to be spelled out that India reserves the right to undertake cyber offensive against a state or a non-state actor if it finds such actor intentionally harming India's interest.

- In such instances, the Pakistani establishment might be targeted beyond diplomatic pressures.

- For this purpose India's line of argument should concentrate on three major factors.

  * One, since there is no universally accepted cyber regime hence India cannot be blamed for breaking any global norm.

  * Two, India's transparent approach and adequate forewarning to Pakistan about its likely reaction should give it the moral high ground.

  * Third, India should articulate its response as one of 'war minus' solution, an option which states like the US often ignore.

- The ability of the Indian armed forces to conduct such cyberstrikes is not completely known, and rightly so, given that disclosure of such details would take away the element of surprise.

6.   **Register of Indigenous Inhabitants of Nagaland (RIIN)**
   Context

   - According to a notification issued by Nagaland Chief Secretary Temjen Toy, the Government of Nagaland has decided to set up a Register of Indigenous Inhabitants of Nagaland (RIIN) with the aim of preventing fake indigenous inhabitant's certificates.

   - The RIIN will be the master list of all indigenous inhabitants of the state.

   Stats
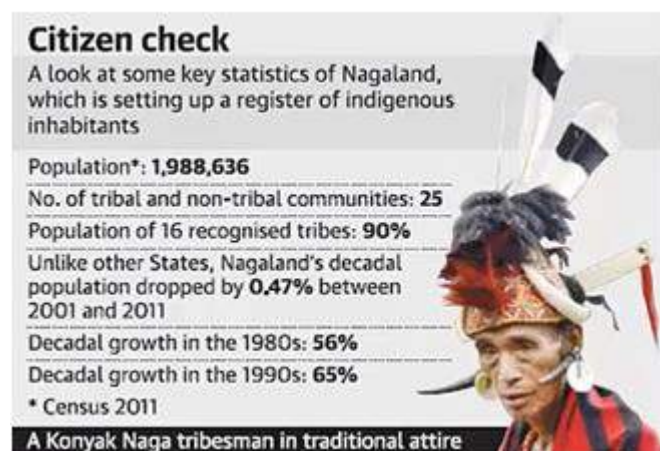
   How will the list be prepared?

   - The RIIN list will be based on "an extensive survey". It will involve official records of indigenous residents from rural and (urban) wards and would be prepared under the supervision of the district administration.

   - The whole process will be completed within 60 days from the start.

   - The designated teams comprising Sub-Divisional Officers (SDO), Block Development Officers (BDO), Headmasters and other nominated members, will make a list of indigenous inhabitants in the state.

   - The database will note each family's original residence, current residence as well as the concerned Aadhaar numbers. This provisional list will then be published in all villages, wards and on government websites in September. In October claims and objections will be entertained.

   What is the review procedure?

   - Respondents will be given an opportunity to make their case before the authorities. Eventually, respective Deputy Commissioners will adjudicate on the claims and objections based on official records and the evidence produced.

   - This process will be completed before December 10, 2019.

   What will the unique identity look like?

   - Based on the adjudication and verification, a list of indigenous inhabitants will be finalised and each person will be given a unique ID.

   - The final list or the RIIN will be created and its copies will be placed in all villages and ward. Electronic copies of the list will also be stored in the State Data Centre.

   - A mechanism or electronic and SMS-based authentication will be put in place. All indigenous inhabitants of the state would be issued a barcoded and numbered Indigenous Inhabitant Certificate.

   - The process will be conducted across Nagaland and will be done as part of the online system of Inner Line Permit (ILP), which is already in force in Nagaland.

   How will be the process be monitored?

   - The entire exercise will be monitored by the Commissioner of Nagaland. In addition, the state government will designate nodal officers of the rank of a Secretary to the state government. Their role will be to monitor the implementation.

   - However, they will have no say in the adjudication process. The nodal officers will submit monthly reports of their visits and their assessments to a permanent committee set up under the Home Department to monitor the whole exercise.

   How will the RIIN be updated?

   - Once the RIIN is finalised, no fresh indigenous inhabitant certificates will be issued except to newborn babies born to the indigenous inhabitants of Nagaland.

   Birth of Nagaland as a state

   - After India became independent, the Naga areas continued to be a part of Assam province.

     * It was earlier the Naga Hills-Tuensang area of Assam.

   - Some Naga Nationalist Groups stepped up their demand for a political entity comprising several Naga-populated areas.

     * Nationalist activities arose amongst a section of the Nagas. They demanded a political union of their ancestral and native groups.

     * The movement led to a series of violent incidents that damaged government and civil infrastructure, attacked government officials and civilians.

   - In July 1960, following discussion between Prime Minister Nehru and the leaders of the Naga People Convention (NPC), a 16-point agreement was arrived at whereby the Government of India recognised the formation of Nagaland as a full-fledged state within the Union of India.

   - In August 1962, a bill was moved in the Indian Parliament for creating a state of Nagaland.

   - Indian President Sarvepalli Radhakrishnan inaugurated the state of Nagaland at Kohima on December 1, 1963.

Three conditions

Though the official notification on RIIN has not mentioned a cut-off date to compile the proposed register, the authorities in Nagaland have till date issued indigenous inhabitant certificates using December 1, 1963 as the cut-off date. Since 1977, a person, in order to be eligible to obtain a certificate of indigenous inhabitants of Nagaland, has to fulfil either of these three conditions:

- the person settled permanently in Nagaland prior to December 1, 1963;

- his or her parents or legitimate guardians were paying house tax prior to this cut-off date; and

- The applicant, or his/her parents or legitimate guardians, acquired property and a patta (land certificate) prior to this cut-off date.

Concerns

- The compilation of RIIN also involves the complexities of deciding claims in respect of children of non-Naga fathers as well as non-Naga children adopted by Naga parents.

- If the Nagaland government goes ahead with a compilation of RIIN with this cut-off date, then all Naga people who have migrated to the State from the neighbouring States of Assam, Manipur and Arunachal Pradesh and elsewhere in India after this day will have to be excluded.

- According to the Nagaland government, the objective of the RIIN was to prevent non-indigenous residents of the State from acquiring indigenous inhabitant certificates for jobs and beneficiary schemes. This has raised apprehensions that Nagas from beyond Nagaland may be excluded.

  * There are more than 50 Naga tribes across Arunachal Pradesh, Assam, Manipur and Myanmar, besides Nagaland.

- Isak-Muivah faction of the National Socialist Council of Nagaland (NSCN (IM)) has slammed the Nagaland government's exercise to implement a Register of Indigenous Inhabitants of Nagaland (RIIN)

  * Terms it a bid to divide and undermine the inherent rights of the Nagas, who want to live together.

7. Sagar Maitri Mission-2

- SAGAR MAITRI is a unique initiative of DRDO which aligns with the broad objective of Prime Minister Modi's policy declaration "Safety And Growth for All in the Region (SAGAR)" to promote closer co-operation in socio-economic aspects as well as greater scientific interaction especially in ocean research among Indian Ocean Rim (IOR) countries.

- The prime objectives of the SAGAR MAITRI Mission are data collection from the entire North Indian Ocean, focussing on the Andaman Sea and adjoining seas and establishing long-term collaboration with eight IOR countries in the field of ocean research and development.

- The other IOR countries include Oman, Maldives, Sri Lanka, Thailand, Malaysia, Singapore, Indonesia and Myanmar.

- The programme also aims at establishing long term scientific collaboration with these countries in the field of 'Ocean Research & Development' and data collection with a focus in the Andaman Sea.

Context

- Oceanographic research vessel of DRDO, INS Sagardhwani, embarked on a two-month long SAGAR MAITRI (SM) Mission-2

8. Securitypedia

- It is an online encyclopaedia launched by Central Industrial Security Force

- It incorporates a wide gamut of security-related practices across the globe

- The CISF has established a technical lab at National Industrial Security Academy (NISA) in Hyderabad

  * This will maintain and update technical knowledge about the latest innovations in the field safety and security that can be used in places like airports and government offices

- The Technical Lab has a dedicated research and development wing manned by a team of officers with a technical background, who maintain a constant interface with various academic and research institutions and other professional agencies

- There is also a feature in Securitypedia — CISF Tube — where officials can find all videos relevant to CISF.

  * The videos available on CISF Tube enable CISF personnel to learn on various subjects related to their functioning.

  * For example if a personnel is being posted in a specific theatre and wants to know what kind of training he would go through, he can quickly check a video and mentally prepare himself.

  * Videos related to operation of various arms and equipment used by CISF are also available. We are also regularly posting videos of latest technologies being used across the world for security

- Depending upon the outreach and feedback, the Security pedia will be made accessible to other paramilitary forces

Significance

- This will help pool in a wide range of experiences, knowledge and information that will help the force.

- It will also break knowledge hierarchy as all personnel irrespective of ranks will be able to contribute

*   It is not just a static website containing data archives but a platform where CISF officials can contribute by writing blogs on professional issues.

Technical Cooperation

*   The technical research and development lab of CISF has been actively engaged with national-level research institutions such as the National Remote Sensing Centre (NRSC) to leverage the technological solutions they can offer.

*   To achieve the objective, CISF has been assisting the National Center of Excellence in Technology for Internal Security (NCETIS) at IIT-Mumbai in the evaluation of products, said the spokesperson.

9. **Strum Ataka**

Context

*   Seeking to keep itself battle-ready in situations like the one post-Balakot aerial strikes, India has signed a deal to acquire 'Strum Ataka' anti-tank missile from Russia for its fleet of Mi-35 attack choppers.

Other Acquisitions

*   The IAF has made several acquisitions under the emergency provisions to equip itself for sudden war. Earlier this month, IAF signed Rs 300 crore deal with an Israeli defence firm to procure a batch of 'Spice 2000' guided bombs

*   The Spice bombs are a derivative of Popeye air-to-surface missile and are fed with coordinates and satellite pictures of the target to home in and destroy the intended targets

10. **The judicial presumption of non-citizenship**

Background

*   Abdul Kuddus, a resident of Assam had been declared a foreigner by the Foreigner's Tribunal

*   But his name had appeared in the final draft of the NRC for Assam along with his family

*   There is a conflict in inclusion under NRC and exclusion under Foreigner Tribunals. This was a case asking the SC if the Foreigner Tribunal had powers to declare a person as foreigner.

*   The issue arose because, in the State of Assam, there are two ongoing processes concerning the question of citizenship.

    *   The first includes proceedings before the Foreigners Tribunals, which have been established under an executive order of the Central government.

    *   The second is the NRC, a process overseen and driven by the Supreme Court.

View of the Appellant

*   The petitioners' case was that the two processes — that of the Foreigners Tribunal and of the NRC — should be kept entirely independent of each other, and without according primacy to one over the other.

*   The appellants argued that the Tribunal is not a competent authority to declare someone a foreigner, in the context of the NRC.

*   They viewed orders by the Foreigners Tribunal as mere executive orders that do not carry judicial weight.

*   They cited the fact that Tribunal orders are not judgments, referring to a 2012 Amendment to the Foreigners (Tribunal) Order, 1964.

Questions before the SC?

*   Is the Foreigners Tribunal the 'competent authority' to declare someone a foreigner, under paragraph 3 of the Schedule to the Citizenship Rules, 2003 (2003 Rules)?

*   Does res judicata apply to orders by the Foreigners Tribunal? Meaning, once you have been declared a foreigner by the Tribunal, are you barred from approaching it a second time?

*   Should the Supreme Court create an appellate forum, exercise its power under Article 142 of the Constitution, for those appealing exclusion from the NRC?

What did the SC say?

*   The Court held that orders by the Tribunal prevail over orders by the government to include/exclude names from the NRC.

*   The Court rejected their argument, holding that the Tribunal is the competent authority under the parent Act of the 2003 Rules.

    *   According to Schedule to the Citizenship (Registration of Citizens and Issue of National Identity Cards) Rules, 2003 (the "2003 Rules) stipulated that a person who had been declared an illegal immigrant or foreigner by the competent authority would not be included in the consolidated list or the final National Register of Citizens

*   The Court invoked Section 6A of the Citizenship Act, 1955, which states that the Tribunal is competent to declare someone a foreigner.

*   Further, the Court stated that the appellants had failed to establish who an alternate competent authority could be. Hence, it declared that orders of the Tribunal are "quasi-judicial" and not merely executive.

Outcome

*   As a result of this judgment, those excluded from the NRC may only file an appeal before the Foreigners Tribunal.

- But if they have previously already been declared a foreigner by the Tribunal, their only option is to file a fresh writ petition before the High Court of Guwahati.

- The Supreme Court rejected the petitioners' arguments, and held that the "opinion" of the Foreigners Tribunal was to be treated as a "quasi-judicial order", and was therefore final and binding on all parties including upon the preparation of the NRC.

Issues with the Judgment

- Neither in their form nor in their functioning do Foreigners' Tribunals even remotely resemble what we normally understand as "courts". It means that these tribunals are not effective as that of the courts in efficacy.

  * First, Foreigners Tribunals were established by a simple executive order.

  * Second, qualifications to serve on the Tribunals have been progressively loosened and the vague requirement of "judicial experience" has now been expanded to include bureaucrats.

- Unsurprisingly, over the last few months, glaring flaws in the working of the Foreigners Tribunals have come to light. Questions in Parliament showed that as many as 64,000 people have been declared non-citizens in ex-parte proceedings, i.e., without being heard.

- Testimonies reveal these people are often not even served notices telling them that they have been summoned to appear.

  * Alarmingly, an investigative media report featured testimony by a former Tribunal member who stated that his compatriots competed to be what was jokingly referred to as "the highest wicket-taker", i.e. the one who could declare the highest number of individuals "foreigners".

Supreme Court has failed to perform its duties

When adjudicating upon a person's citizenship — a determination that can have the drastic and severe result of rendering a human being stateless — only the highest standards of adjudication can ever be morally or ethically justifiable. But in further strengthening an institution — the Foreigners Tribunal — that by design and by practice manifestly exhibits the exact opposite of this principle, the Supreme Court failed to fulfil its duty as the last protector of human rights under the Constitution.

- The Court attempted to justify this by observing that "fixing time limits and recording of an order rather than a judgment is to ensure that these cases are disposed of expeditiously and in a time bound manner".

- When the stakes are so high, when the consequences entail rendering people stateless, then to allow such departures from the most basic principles of the rule of law is morally grotesque.

Similar case of insensitivity from the past

The Court's observations in the Kuddus case, and indeed, the manner in which it has conducted the NRC process over the last few months, can be traced back to two judgments delivered in the mid-2000s, known as Sarbananda Sonowal I and II.

- In those judgments, relying upon unvetted and unreviewed literature, without any detailed consideration of factual evidence, and in rhetoric more reminiscent of populist demagogues than constitutional courts, the Court declared immigration to be tantamount to "external aggression" upon the country; more specifically, it made the astonishing finding that constitutionally, the burden of proving citizenship would always lie upon the person who was accused of being a non-citizen.

- A parliamentary legislation that sought to place the burden upon the state was struck down as being unconstitutional.

- What the rhetoric and the holdings of the Sonowal judgments have created is a climate in which the dominant principle is the presumption of non-citizenship.

Conclusion

- Apart from the absurdity of imposing such a rule in a country that already has a vast number of marginalised and disenfranchised people, it is this fundamental dehumanisation and devaluation of individuals that has enabled the manner in which the Foreigners Tribunals operate, the many tragedies in the context of the NRC

- It is clear that if Article 21 of the Constitution, the right to life, is to mean anything at all, this entire jurisprudence must be reconsidered, root and branch.

11. Unlawful Activities (Prevention) Amendment Act

Context

- The Parliament has brought about changes in UAPA that empowers the government to designate individuals as terrorists and empowers the Director-General, National Investigation Agency (NIA) to grant approval of seizure or attachment of property when the case is investigated by the agency.

Features

- Under the Earlier Act, as per section 25 of the UAPA, forfeiture of property representing proceeds of terrorism can only be made with prior approval in writing by the DGPs of the state wherein such property is located. However, many times terror accused own properties in different states. In such cases, seeking approval of DGPs of different states becomes very difficult, and the delay caused by the same may enable the accused to transfer properties etc.

* The New Amended Act gives power to DG, NIA to attach properties acquired from proceeds of terrorism

- Under Earlier Act, investigation of cases may be conducted by officers of the rank of Deputy Superintendent or Assistant Commissioner of Police or above.

  * The New Amended Act additionally empowers the officers of the NIA, of the rank of Inspector or above, to investigate cases.

  * Inspectors of NIA have acquired sufficient proficiency to investigate these offenses and senior officers are required to be better utilized for supervision of investigation.

  * Senior officers of NIA supervise all cases to expedite investigations in accordance with law.

- Further, there is no provision in the UAPA or any other legislation to designate individual terrorist. Therefore, when a terrorist organization is banned, its members form a new organization. Therefore, it is essential to declare guilty individuals as terrorists. UN and other nations have similar provisions.

Reasons stated by government for amendment

- The government has said that terrorist acts are committed not only by organisations, but also by individuals.

- So not designating individuals as terrorists would give them an opportunity to circumvent the law and they would simply gather under a different name and keep up their terror activities.

- Another reason offered is that the United Nations Security Council (UNSC) now designates individuals as such, and India as a signatory of the United Nations Charter is bound to treat such individuals as terrorists.

Act of Terrorism

Under the Act, the central government may designate an organisation as a terrorist organisation if it: (i) commits or participates in acts of terrorism, (ii) prepares for terrorism, (iii) promotes terrorism, or (iv) is otherwise involved in terrorism.

- Under Earlier Act there is no provision in the UAPA or any other legislation to designate individual terrorist. Therefore, when a terrorist organization is banned, its members form a new organization.

  * The New Amended Act additionally empowers the government to designate individuals as terrorists on the same grounds. The practice of designating individuals under anti-terrorism laws, prevalent in several countries, is seen as being necessary because banned groups tend to change their names and continue to operate.

Issues Associated

- The law allows the National Investigation Agency (NIA) to go to any state without taking permission from state police concerned for checking anti-terror activities.

  * This is against the federal structure of the country. The provision to empower the head of the National Investigation Agency to approve the forfeiture of property of those involved in terrorism cases obviously overrides a function of the State government.

- There is no set procedure for designating an individual a terrorist. Parliament must consider whether an individual can be called a 'terrorist' prior to conviction in a court of law.

  * The absence of a judicial determination may render the provision vulnerable to invalidation.

  * This would be a violation of the principles of natural justice.

- There ought to be a distinction between an individual and an organisation, as the former enjoys the right to life and liberty. The likely adverse consequences of a terrorist tag may be worse for individuals than for organisations.

  * Further, individuals may be subjected to arrest and detention; even after obtaining bail from the courts, they may have their travel and movements restricted, besides carrying the taint.

- A wrongful designation will cause irreparable damage to a person's reputation, career and livelihood.

- Such sweeping executive powers in the hands of government will have a chilling effect on civil liberties and free speech.

  * Merely harbouring an opinion or an ideology could haul political dissidents or even opposition leaders into the dragnet

- At a time when innocent Muslim men continue to be locked up for decades on flimsy terrorism charges, it is hard to imagine that somehow this law will be applied neutrally.

  * The excuse that the amendments were necessary in light of "difficulties" in investigation and prosecution falls apart when examined seriously.

- The bill was not referred to any select committee, underwent little or no real scrutiny and was not the subject matter of much serious debate.

Conclusion

- The 2004 amendments to the Unlawful Activities (Prevention) Act, 1967, made it a comprehensive anti-terror law that provided for punishing acts of terrorism, as well as for designating groups as 'terrorist organisations'.

- Parliament further amended it in 2008 and 2013 to strengthen the legal framework to combat terror.

- While none will question the need for stringent laws that show 'zero tolerance' towards terrorism, the government should be mindful of its obligations to preserve fundamental rights while enacting legislation on the subject.

ENVIRONMENT AND ECOLOGY

1. App to track your carbon footprint to be launched

Context:

- Chief Minister of Maharashtra has announced that the State government would now track citizens' carbon footprint through an app.

What is carbon footprint?

- Carbon footprint is the amount of carbon dioxide released into the atmosphere as a result of the activities of a particular individual, organization, or community. Carbon footprint of a person is the amount of carbon dioxide (CO_2) emitted by his/her personal activities.

Background:

- The idea of the app was initiated after the Prime Minister Narendra Modi promised international organisations to bring India's pollution levels to 2005 levels by 2030.
- The PM had also announced India's aim to generate 175 GW (gigawatt) of renewable energy by 2022, of which 100 GW is to be solar.
- India has, as part of the Paris Summit, promised to reduce greenhouse gas emission by 20% to 25%.

Details:

- The carbon footprints of the citizens will be tracked and those who achieve an emission neutral status will be rewarded with a certificate and tax rebate.
- The footprints of an individual, as per the app, will include his use of electricity, air conditioning, kitchen activities among others.
- The aim is to reduce pollution and carbon emission in the state.
- The State Forest Department is developing the app.
- The app will be able to count the everyday carbon emission of citizens and suggest measures to reduce it depending on the count.
- The app could be used as a tool to create awareness on climate change.

2. Bengal port records country's highest sea level rise in 50 years

Context

- Diamond Harbour in West Bengal located at the mouth of river Hooghly has recorded the maximum sea level increase, according to data tabled in the Lok Sabha by the Ministry of Earth Sciences.

Details

- While recent studies reveal that sea level rise in the country has been estimated to be 1.3 mm/year along India's coasts during the last 40-50 years, at Diamond Harbour the rise was almost five times higher at 5.16 mm per year.
  * The mean sea level rise for Diamond Harbour was based on recordings over the period from 1948 to 2005.
  * The sea level rise is higher in West Bengal, particularly in the Sunderbans delta is because of the deltaic sediment deposition as a result of the mixing of fresh water and saline water
- This is followed by Kandla port in Gujarat where the sea level rise was 3.18 (1950 to 2005) , followed by Haldia in West Bengal, which recorded a sea level rise of 2.89 mm a year (1972 to 2005). Port Blair also recorded a sea level rise of 2.20 mm per year (1916-1964).
- Going by the data from the Ministry of Earth Sciences, four ports — Diamond Harbour, Kandla, Haldia and Port Blair — recorded a higher sea level rise than the global average.
- Chennai and Mumbai, recorded a sea level rise far below the global and the national averages at 0.33 mm per year (1916-2005) and 0.74 mm (1878-2005) respectively.

Concerns

- Rising sea levels can exacerbate the impacts of coastal hazards such as storm surge, tsunami, coastal floods, high waves and coastal erosion in the low lying coastal areas in addition to causing gradual loss of coastal land to sea

3. CPCB pulls up 52 firms over handling of waste

Context

- The Central Pollution Control Board (CPCB) has pulled up 52 companies — including Amazon, Flipkart, Danone Foods and Beverages and Patanjali Ayurved Limited — for not specifying a timeline or a plan to collect the plastic waste that results from their business activities.

What does the law say?

- The Plastic Waste Management Rules, 2016, (which was amended in 2018) prescribed by the Union Environment Ministry, says that companies that use plastic in their processes — packaging and production — have a responsibility to ensure that any resulting plastic waste is safely disposed of.

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The Learning App

- Under this system — called the Extended Producers Responsibility (EPR) — companies have to specify collection targets as well as a time-line for this process within a year of the rules coming into effect on March 2016. The plastic waste can be collected by the company or outsourced to an intermediary

- The Rules also mandate the responsibilities of local bodies, gram panchayats, waste generators and retailers to manage such waste.

Penalty

- Failing to comply would invite action against the defaulters

- This action can include fines or imprisonment under provisions of the Environment Protection Act.

Stats

- According to Central Pollution Control Board (CPCB) estimates in 2015, Indian cities generate about 15,000 tonnes of plastic waste per day and about 70 per cent of the plastic produced in the country ends up as waste.

- Nearly 40 per cent of India's plastic waste is neither collected nor recycled and ends up polluting the land and water.

Future Course

- It should be noted that the retail sector expects e-commerce to grow from about $38.5 billion-equivalent in 2017 to $200 billion by 2026. Given the role played by packaging, the waste management problem is likely to become alarming. There is also a big opportunity here, which the trade, municipal governments and pollution control authorities need to see.

- The two prongs of the solution are packaging innovation that reduces its use by using alternatives, and upscaling waste segregation, collection and transmission.

- Plastics may be less expensive than other inputs in manufacturing, but recycling them into new products extends their life and provides a substitute for virgin material. Keeping them out of the environment reduces clean-up and pollution costs.

- Online retailers have not felt compelled to take back the thousands of polybags, plastic envelopes and air pillows used to cushion articles inside cardboard boxes.

  * This is in contrast to more developed markets where they are trying out labels on packages with clear recycling instructions.

- These companies can form waste cooperatives in India, employing informal waste-pickers. In such a model, consumers will respond readily if they are incentivised to return segregated plastic waste.

- Making municipal and pollution control authorities accountable is also equally important.

4. **Dam Safety Bill 2019**

Background

- As per the latest official data, the country has 5,264 large dams in the country while 437 dams are under construction. In addition to these dams, there are thousands of other small and medium dams in the country. Of the total large dams, 293 dams are more than 100 years old and 1,041 dams are more than 50 years old.

- In the absence of a proper legal framework, safety and maintenance of these large numbers of dams are a cause of concern.

- The dam safety bill, 2019 provides for proper monitoring inspection, operation and maintenance of all specified dams in the country.

- The Centre says it was empowered to enact a law on the subject, especially as 92% of the dams involved two or more States, and Article 246 and 56 empowered the Centre to intervene.

Features of the Bill

- It is applicable to all dams across the country which is over 10 meters in height, subject to specific design and structural conditions.

- The Bill enables the setting up of a National Committee on Dam Safety (NCDS) to formulate policies and regulations regarding dam safety standards and to analyze causes of major dam failures to suggest changes in safety practices.

- To implement these policies, a National Dam Safety Authority will be set up.

- At the State level, the Bill provides for the constitution of a State Dam Safety Organisation to take care of its dams, and a State Committee on Dam Safety to review its work, among other things.

- The bill was too focused on structural safety and not on operational safety.

Why are the States against it?

The Bill previously failed to be passed in Lok Sabha due to opposition from numerous States.

- The states in India say 'water' comes under the State list, it is an unconstitutional move aimed at taking control of their dams.

- Many States, including Karnataka, Kerala, Tamil Nadu and Odisha, have opposed the Bill because they say it encroaches upon the sovereignty of States to manage their dams, and violates the principles of federalism enshrined in the Constitution.

- Tamil Nadu's main concern stems from Section 23(1) of the Bill, according to which if the dams of one State fall under the territories of another, then the National Dam Safety Authority will perform the role of State Dam Safety Organisation, thus eliminating potential causes for inter-State conflicts.

- This clause is particularly worrisome for the State which has fours dams — the Mullaperiyar, Parambikulam, Thunakkadavu and Peruvaripallam — that are owned by it, but are situated in neighbouring Kerala.

  * Currently, the rights on these dams are governed by pre-existing long-term agreements among the States.

  * The provisions in the Bill imply that the dam-owning State would not have rights over the safety and maintenance of the dam located in another State.

5. **Desalination Technology**

   Background

   - With warnings from India's top policy-makers and reports of major cities in India struggling to stave off a water crisis, there's talk about exploring technologies to harness fresh water.

   - The one idea that's been around for a while is desalination, or obtaining freshwater from salt water.

   - To convert salt water into freshwater, the most prevalent technology in the world is Reverse Osmosis (RO).

   How does it work?

   - A plant pumps in salty or brackish water, filters separate the salt from the water, and the salty water is returned to the sea. Fresh water is sent to households.

- Osmosis involves 'a solvent (such as water) naturally moving from an area of low solute concentration, through a membrane, to an area of high solute concentration.

- A Reverse Osmosis System applies an external pressure to reverse the natural flow of solvent and so seawater or brackish water is pressurised against one surface of the membrane, causing salt-depleted water to move across the membrane, releasing clean water from the low-pressure side'.

- Seawater has Total Dissolved Solids (TDS) — a measure of salinity — close to 35,000 parts per million (ppm), or equivalent to 35 g of salt per one litre/kg of water.

- An effective network of RO plants reduce this down to about 200-500 ppm.

How popular is it in India?

- Years of water crises in Chennai saw the government set up two desalination plants between 2010 and 2013.

- These were at Minjur, around 30 km north of Chennai, in 2010, and Nemmeli, 50 km south of Chennai, in 2013.

- Each supplies 100 million litres a day (MLD); together they meet little under a fourth of the city's water requirement of 830 MLD.
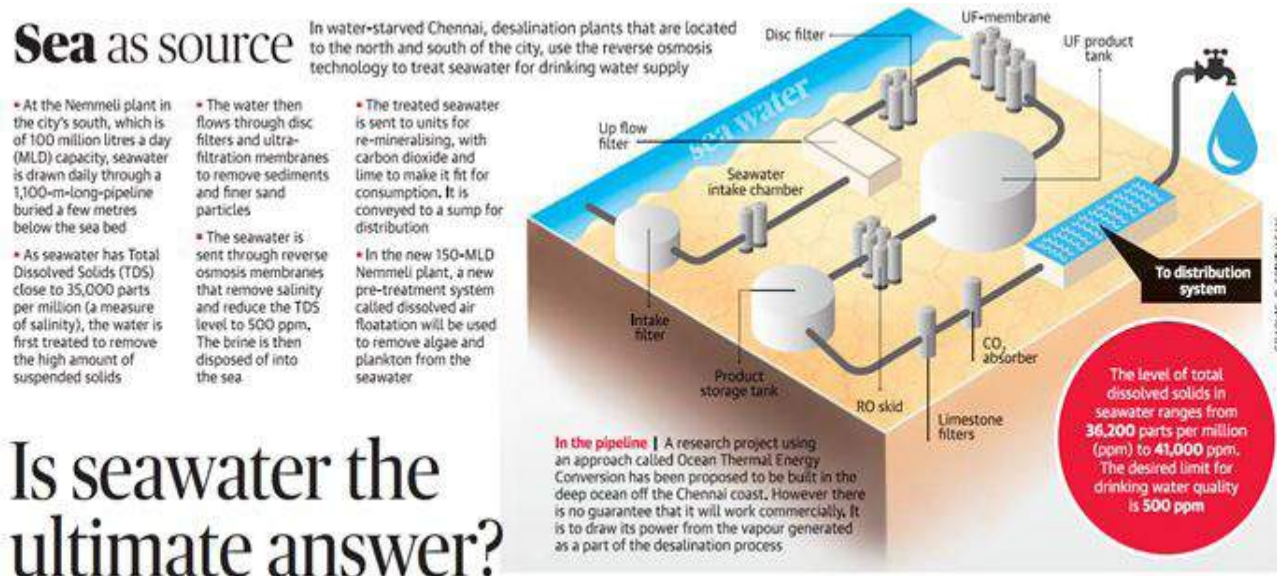
What are the problems with RO plants?

- Because RO plants convert seawater to fresh water, the major environmental challenge they pose is the deposition of brine (highly concentrated salt water) along the shores. Ever since the Chennai plants have started to function, fishermen have complained that the brine being deposited along the seashore is triggering changes along the coastline and reducing the availability of prawn, sardine and mackerel.

- Environmentalists second this saying that hyper salinity along the shore affects plankton, which is the main food for several of these fish species.

- Moreover, the high pressure motors needed to draw in the seawater end up sucking in small fish and life forms, thereby crushing and killing them — again a loss of marine resource.

- On an average, it costs about ₹900 crore to build a 100 MLD-plant. To remove the salt required, there has to be a source of electricity, either a power plant or a diesel or battery source. It is estimated that it cost ₹3 to produce 100 litres of potable water.

Is RO water healthy?

- In the early days of RO technology, there were concerns that desalinated water was shorn of vital minerals such as calcium, magnesium, zinc, sodium, potassium and carbonates. They are collectively referred to as TDS.

- Higher quantities of these salts in desalination plants tend to corrode the membranes and filtration system in these plants.

- So ideally, a treatment plant would try to keep the TDS as low as possible. Highly desalinated water has a TDS of less than 50 milligrams per litre, is pure, but does not taste like water. Anything from 100 mg/l to 600 mg/l is considered as good quality potable water.

- Most RO plants, including the ones in Chennai, put the water through a 'post-treatment' process whereby salts are added to make TDS around 300 mg/l.

- Several of the home-RO systems that are common in affluent Indian homes, too employ post-treatment and add salts to water.

Are there technological alternatives?

Low-Temperature Thermal Desalination (LTTD)

- The alternative desalination technology used is thermal energy sourced from the ocean.

- There is a LTTD technique for instance which works on the principle that water in the ocean 1,000 or 2,000 feet below is about 4º C to 8º C colder than surface water. So, salty surface water is collected in a tank and subject to high pressure (via an external power source).

- This pressured water vapourises and this is trapped in tubes or a chamber. Cold water plumbed from the ocean depths is passed over these tubes and the vapour condenses into fresh water and the resulting salt diverted away.

National Institute of Ocean Technology (NIOT)

- This research organisation based in Chennai, has been working on this technology for decades. In 2005, it set up a 100,000 litre-a-day plant in Kavaratti, Lakshwadeep islands and this has been providing water to about 10,000 residents.

- Other than the plant at Kavaratti, there are plants of similar capacity proposed at Minicoy and Agatti islands.

- There are also 1.5 lakh litres a day plants proposed at Amini, Androth, Chetlat, Kadamat, Kalpeni and Kiltan islands.

Ocean Thermal Energy Conversion

- However, the most ambitious research project is a 10 million litre a day plant that is proposed to be built in the deep ocean, 50 kilometres away from the Chennai coast.

- While the LTTD technique draws power from diesel sets, this massive new plant will draw power from the vapour generated as a part of the desalination process. This vapour will run a turbine and thereby will be independent of an external power source.

- While great in theory, there is no guarantee it will work commercially. For one, this ocean-based plant requires a pipe that needs to travel 50 kilometres underground in the sea before it reaches the mainland. The NIOT has in the past had significant problems in managing such a pipe.

- Then, RO is commercially proven and the dominant technology and therefore it could be hard to convince private players to invest in such a technology.

6. Dracaena Cambodiana

Context

- Researchers have discovered Dracaena cambodiana – a Dragon tree species in Assam's West Karbi Anglong dist.

- This is for the first time that a dragon tree species has been reported from India.

- The Dracaena genus belonging to the family Asparagaceae is represented by nine species and two varieties in the Himalayan region, the northeast and Andaman and Nicobar Islands.

- However, the study highlighted that Dracaena cambodiana is the only true dragon tree species.

Details

- Dracaena cambodiana is an important medicinal plant as well as an ornamental tree.

* The plant yields dragon's blood — a bright red resin.

* A dragon tree species' sap turns bright red after coming in contact with air.

- It is a major source of dragon's blood, a precious traditional medicine in China.

- Several antifungal and antibacterial compounds, antioxidants, flavonoids, etc., have been extracted from various parts of the plant.

Threats

- Recent overexploitation to meet the increasing demand for dragon's blood has resulted in rapid depletion of the plant.

- For this reason, the species is already listed in the inventory of Rare and Endangered Plants of China

Conservation

- The Dracaena seeds are usually dispersed by birds. But due to the large fruit size, only a few species of birds are able to swallow the fruits, thus limiting the scope of its natural conservation.

- The study advocates conservation programme for Dracaena cambodiana in view of its medicinal, ornamental and ecological values.

7. Draw up action plan for revamping existing mechanisms: NGT to MoEF

Context

- Following a plea that questioned the effectiveness of current monitoring mechanisms for compliance of environmental clearances granted to various projects, the National Green Tribunal (NGT) has directed the Union Environment Ministry to draw up an action plan for "revamping the existing mechanisms".

Current law

The EIA Notification, 2006, broadly divides all projects into two categories—Category A and Category B—based on potential impacts over an area and on human health and natural and man-made resources.

- According to the notification, all Category A projects (with potentially significant impacts) are required to carry out an EIA and undertake a public hearing before an EC may be granted by the Union environment ministry.

    * All Category A projects require a 'Prior Environmental Clearance' (EC) from MoEF.

    * All new National Highways are classified as Category A

- Category B projects (with potentially less significant impacts) are evaluated and given a clearance by state level authorities, the State Environment Impact Assessment Authority (SEIAA) and State Expert Appraisal Committee (SEAC).

Details

- The need for 100% monitoring of category "A" projects is necessary in view of serious challenges of environment faced by the country in the form of there being 100 polluted industrial clusters, 351 polluted river stretches and 102 non-attainment cities, apart from other serious issues

- Earlier, the green panel had directed the Ministry to "evolve an appropriate" mechanism to ensure effective monitoring of the environmental clearances granted.

- Following allegations that there was "flagrant violation of conditions of environmental clearance and adequate monitoring was not taking place," the tribunal in October 2018 had observed that "compliance of conditions of EC must be monitored on a periodical basis, at least once a quarter".

8. Dugong/ Sea Cow

- IUCN: Vulnerable

- They are strictly marine mammals.

- The dugong is largely dependent on seagrass communities for subsistence and is thus restricted to the coastal habitats which support seagrass meadows

- These enormous vegetarians can be found in warm coastal waters from East Africa to Australia, including the Red Sea, Indian Ocean, and Pacific.

- Dugongs are related to manatees

Threats

- The dugong has been hunted for thousands of years for its meat and oil.

9. Ganges River Dolphin

- Blind Dolphin, Ganges Dolphin, Ganges Susu, Gangetic Dolphin, Hihu, Side-Swimming Dolphin, South Asian River Dolphin, Indus River Dolphin, Platanista gangetica

- IUCN: Endangered

- Habitat: Ganga and Brahmaputra river system

- Being a mammal, the Ganges River dolphin cannot breathe in the water and must surface every 30-120 seconds.

- Because of the sound it produces when breathing, the animal is popularly referred to as the 'Susu'.

- The Ganges river dolphin can only live in freshwater and is essentially blind.

- They hunt by emitting ultrasonic sounds, which bounces off of fish and other prey, enabling them to "see" an image in their mind.

- The Ganges river dolphin has been recognized by the government of India as its National Aquatic Animal

Threats

- They are threatened by removal of river water and siltation arising from deforestation, pollution and entanglement in fisheries nets.

- Their oil and meat used as a liniment to relieve pain

- National Waterway-1 is an inland water transport route between Haldia in West Bengal to Prayagraj in Uttar Pradesh. The objective of the project is to promote inland waterways as a cheap and environment-friendly means of transportation, especially for cargo movement.

  * As per the survey conducted by Vikramshila Biodiversity Research and Education Centre (VBREC) in partnership with researchers from Ashoka Trust for Research on Ecology and Environment (ATREE), Bangalore and Wildlife Institute of India (WII) Dehradun, the number of dolphins at Bihar's Vikramshila Gangetic Dolphin Sanctuary (VGDS) has declined to 154 from 207 in 2015.

  * One of the main reasons for this decline is found to be the movement of big cargo vessels in the river and dredging activities

Context

- Restricting the speeds of vessels and blowing sirens and horns is how the Ministry of Shipping plans to safeguard the population of the Ganges River Dolphin, in the country's one dolphin reserve through which National Waterway-1 connecting Haldia to Varanasi passes.

Other Measures

- The other mitigation measures, include fitting vessels with propeller guards and dolphin deflectors to minimise dolphin accidents and using non-toxic paints for painting vessels.

10. Gharial

Context

- Odisha has renewed its effort to revive the population of gharials.

Concerns:

- According to the wildlife wing of the Odisha State Forest Department, gharials, the large reptiles which were abundant in the main rivers and tributaries of the Indus, Ganga, Brahmaputra and Mahanadi-Brahmani, are now limited to only 14 widely spaced and restricted locations in India and Nepal.

- Odisha is the only state in India having all three species — gharial, mugger and saltwater crocodile.

Details:

- Odisha has released five reptiles into the Satkosia gorge of Mahanadi — the southernmost limit of gharials' home range in India.

- These gharials, were bred at the Nandankanan Zoological Park.

- The gharials are individually marked and fitted with radio transmitters for future identification and tracking of their migration route.

- They will help in gathering information on migration and factors affecting their survival.

- The Odisha State forest department began conservation of these crocodile species in 1975 by establishing three rearing centres — Tikarpada for gharials in Angul district, Ramatirtha for muggers in Mayurbhanj and Bhitarkanika for saltwater crocodiles in Kendrapara district.

Gharials:

- Gharial or Gavialis gangeticus, a critically endangered species of crocodile, as per the IUCN Red List.

- Gharial is listed on CITES Appendix I.

- In India, it is protected under the Wildlife Protection Act of 1972.

- The male gharial has a distinctive boss at the end of the snout, which resembles an earthenware pot.

- Foremost flowing rivers with high sandbanks that they use for basking and building nests.

- It is threatened by loss of riverine habitat, depletion of fish resources, and entanglement in fishing nets.

- It inhabits foremost flowing rivers with high sandbanks that it uses for basking and building nests. Adults mate in the cold season. The young hatch before the onset of the monsoon.

- It is one of the longest of all living crocodilians.

11. Global problem, local solutions: on biodiversity

Introduction

- The Dongria Kondh tribe of Niyamgiri Hills are among the best conservationists in the world.

- Known for the spirited defence of their forested habitat against short-sighted industrialisation, they have through millennia evolved a lifestyle that is in perfect harmony with nature.

- Across India, there are scores of indigenous people who have managed to lead meaningful lives without wanton destruction of natural ecosystems.

Major threats to sustainability

- The first global assessment of biodiversity by UN-backed panel, held humans squarely responsible for the looming mass extinction of species. Without radical efforts towards conservation, the rate of species extinction will only gather momentum.

- The red flag comes close on the heels of another report by the UN Food and Agriculture Organization (FAO). A loss in biodiversity simply means that plants and animals are more vulnerable to pests and diseases, and it puts food security and nutrition at risk, the FAO said.

- Our tropical homeland is rich in biodiversity, but the imperatives of relentless economic growth, urbanisation, deforestation and overpopulation place it at risk more than many other places.

- It is obvious that intensive agriculture, exploitative forestry and overfishing are the main threats to biodiversity in India and the world.

Preserving forest by active engagement of local communities

- These tribes, along with marginalised communities living on the fringes of forests and millions of smallholder farmers, are the best hope that India has to preserve biodiversity and ensure food security.

- At a time when nature faces the threat of another mass extinction of species, their importance cannot be emphasised enough because they offer us solutions to avert an imminent meltdown.

- UN agencies are unanimous that the best way to correct the present course is to heed the accumulated wisdom of indigenous peoples, fishers and farmers.

- For solutions one has to just look at the growing movement of zero-budget natural farming in Andhra Pradesh and Telangana, or the community-driven forest conservation initiatives in Odisha and the Northeast, to realise that there is hope for the natural ecosystem, if only we act on the advice of local communities.

Conclusion

- Loss of biodiversity and the threat of species extinction along with the alarming changes wrought by global warming are the primary concerns of our times. Our best bet for survival depends on how well we address these issues.

- We can do that only if we put people at the centre of our actions. If we continue to ride roughshod over the people who are essential to revitalising nature, we do so only at our peril.

- Therefore biodiversity loss is a global problem, it can be countered only with local solutions. There's no one-size-fits-all approach. A solution that has succeeded in a temperate, wealthy nation may not be suitable for a country like India.

12. HT Bt cotton

- Herbicide-tolerant Bt (HT Bt) Cotton is genetically modified crop of unapproved genes which is not permissible in India.

- Technically, herbicide is like a poison which is used to destroy unwanted vegetation.

- The technique in the HT Bt Cotton makes the crop resistant to herbicide following modification in genes of the seeds.

- Normally, when an herbicide is sprayed, then it destroys unwanted vegetation along with causing harm the cotton crop also. So, farmers use less herbicide in their fields.

- But with the introduction of HT Bt Cotton, there won't be any impact of herbicide on the cotton crop while the unwanted vegetation will be destroyed. This will lead to more use of chemicals in fields causing harm to other crops

What's the extent of HT Bt Cotton in India?

- In the absence of government approval, production of HT Bt seed is illegal, but farmers say it's available in those states where its being grown defying the laws.

- A section of farmers have started sowing its seeds particularly in Maharashtra, Gujarat, Andhra Pradesh and Telangana for the past few years.

Advantages

- According to supporters of HT Bt Cotton, its preferred to reduce the cost of labour as de-weeding is an extremely labour intensive activity involving 40 per cent of the total cost for growing cotton

- The farmers have felt the impact of HT Bt Cotton in terms of lower costs and reduced crop losses leading to higher production and income

Govt Stand

- The Ministry of Agriculture said that that as the HT cotton seeds are not approved for use in the country

13. Immunocontraceptives for wildlife population management

Context

- The Ministry of Environment, Forest and Climate Change (MOEFCC) has launched a project for undertaking 'immunocontraceptives measures' for population management of four species of wild animals — elephant, wild boar, monkey and blue bull (Nilgai).

Details

- Immunocontraception is a technology that uses a female animal's immune system to build a protein around the egg that prevents it from fertilising.

  * Sperm is not permitted to enter and fertilize the egg

- The Wildlife Institute of India (WII) and National the Institute of Immunology (NII) will be developing a protocol of immunocontraception

14. Innovating for Clean Air (IfCA)

- It an initiative that aims to provide a unique measurement system for air quality by integrating satellite and sensor data, and extending support to India's transition to electric vehicles

* The programme will identify relevant challenges around EV-charging infrastructure, grid management and integrating renewable energy to ensure a sufficient, reliable and clean source of power.

* It will also facilitate opportunities for Indian and UK innovators to collaborate in developing long-lasting relationships to address these challenges.

• The two-year UK-India joint initiative is expected to provide stakeholders of the two countries opportunities to test interventions related to air quality and Electric Vehicle (EV) integration.

Key partners of the programme

• The programme is led by Innovate UK — part of UK Research and Innovation (UKRI) — and is funded by the Newton Fund with matched resources from various key partners in Karnataka and India, like Indian Institute of Science, Enzen, Project Lithium, Confederation of Indian Industries, C40 Cities and Clean Air Platform.

• Indian Institute of Science (IISc), Enzen, Project Lithium, Confederation of Indian Industries, C40 Cities and Clean Air Platform. Other partners include Citizens for Sustainability, World Resources Institute, Indian Institute for Information Technology Bangalore (IIIT-B), Shakti Foundation, Shell Technology Centre, Global Business Inroads and India Smart Grid Forum.

15. Keoladeo National Park

• Formerly known as the Bharatpur Bird Sanctuary is located in Rajasthan

• In 1982, Keoladeo was declared a national park and then later listed as a World Heritage Site by UNESCO in 1985.

Indian Crested Porcupine

• IUCN: 'Least Concern'

• In India, it is under Schedule IV of Wildlife Protection Act (WPA) 1972 which provides it protection but with lower penalties.

• In many areas they are considered a pest and are also hunted illegally for their meat.

• Porcupines are a keystone species in the semi-arid region.

Keystone Species

• The name keystone species, coined by American zoologist Robert T. Paine in 1969

• Keystone species have low functional redundancy.

* This means that if the species were to disappear from the ecosystem, no other species would be able to fill its ecological niche.

* Such species help to maintain local biodiversity within a community either by controlling populations of other species that would otherwise dominate the community or by providing critical resources for a wide range of species.

• Any organism, from plants to fungi, may be a keystone species; they are not always the largest or most abundant species in an ecosystem.

16. Report sought on fly ash management

Context:

• The National Green Tribunal sought a report from the authorities on the current status on disposal and management of fly ash.

Details

• The report has been sought, following a plea alleging unscientific handling of fly ash generated by a unit of NTPC.

• A Bench headed by NGT Chairperson has directed Aravalli Power and Jhajjar Power to provide a report on the current status of fly ash disposal and management.

• They have also been directed to furnish an action plan along with timelines within one month.

• Additionally, the Haryana State Pollution Control Board was directed to furnish a report on the status of air quality and stack monitoring with respect to the two units within one month.

Fly Ash and Fly Ash Management:

• Fly Ash is the residue of the combustion process produced at the time of generating power in coal based thermal power plants.

• It is a resource material used for manufacturing of blocks, bricks & tiles, Portland cement, construction of road embankments, low lying area development and in many applications of construction industries.

• The fly ash content produced as result of combustion of Indian coal is significantly higher as compared to the other countries.

• Various approaches need to be adopted for effective fly ash management.

• The coal has to be washed at the place of origin in order to prevent the ash from entering the power plant. Currently 63% of the fly ash produced is utilised.

• Effective fly ash management reduces fly ash generation.

• This is necessary for the environmental protection and also to reduce the land space occupied by fly ash in the power plant.

17. Restoration of forests

Global warming

- It is largely caused by industrial development and consumer demands, has been causing havoc across the world.
- Temperatures are shooting up, floods have been ravaging South China and Northeast India, unseasonal rains and, ironically, delayed and poor monsoon rains are experienced.

Deforestation across the world

- The total surface area of our Earth is 52 billion hectares (Ha), and 31% of this has been forest cover.
- But the huge Amazon forests of South America are being chopped off for commercial reasons. Peru and Bolivia in the western Amazon region are the worst affected by such deforestation; so are Mexico and its neighbours in Mesoamerica.
- Russia, with forests occupying 45% of its land area, is chopping off trees. Large scale deforestation this kind has contributed to global warming over the years.

What is a forest?

- The Food and Agriculture Organization (FAO) defines a "forest" as a land area of at least 0.5 hectares, covered by at least 10% tree cover, without any agricultural activity or human settlement.

India Forest Cover

- In India with its 7,08,273 sq km land area, 21.54% has tree cover. And between 2015 and 2018, we have added 6,778 sq km.
- Madhya Pradesh has the largest forest cover, followed by Chhattisgarh, Odisha and Arunachal Pradesh while Punjab, Haryana, UP and Rajasthan have the least.
- Andhra Pradesh, Telangana, Karnataka, Kerala and Odisha have improved their forest canopy somewhat (<10%).

Solutions

- A major answer to mitigate such climate changes is to reduce the levels of greenhouse gases, particularly carbon dioxide, which cause this warming.
- In an effort to try and limit this warming, many countries across the world are gathering together and agreeing to make efforts to limit the rise in temperature to no higher than 1.5 degrees by the year 2050.
- The major way to do so is to increase the number of plants, trees and forests across the world. They all absorb carbon dioxide from the air, and with the help of sunlight and water, produce food (staple for us) and oxygen (which we breathe). And the wood and timber they offer are used by us in buildings and furniture. They are thus justly named in Sanskrit as Kalpataru — the wish-giving tree.

Leading by example

- But the most outstanding example of reforestation is Philippines, an archipelago of 7,100 islands, with a total land area of 3,00,000 sq km and a population of 104 million people.
- Way back in 1900, about 65% of its land mass was covered in forest canopy. Large-scale commercial deforestation continued after that, so by 1987, it was reduced to 21%. The government thereafter committed itself to steady reforestation, and by 2010, the forest covered 26%.
- It has now introduced a remarkable programme in which it makes it mandatory for each elementary, high school and college student to plant 10 trees before graduating.
- The sites where they plant and the location-appropriate plant are advised to them;
- The mover of this idea, Gary Alejano, stressed on the need to utilise the educational system as an avenue for propagating ethical and sustainable use of natural resources among youth to ensure the cultivation of a socially responsible and conscious citizenry.

18. Sarcoptic Mange

- It is a skin infection in mammals that is caused by a burrowing parasitic mite, Sarcoptes scabiei
- It affects more than 100 mammalian species worldwide, including humans and dogs.
- The disease is referred to as scabies in humans and mange in other species.
- Australian native mammals that are known to be affected by mange include ringtail possums, brown bandicoots koalas and common wombats.
- Mange infection in an animal can result in aggressive scratching, hair loss, skin thickening and crusting, skin discoloration, open wounds (from scratching), weight loss, and in severe cases, death (as a result of secondary infection and suppressed immune system).

Context

- New research from the University of Tasmania is offering hope that the deadly mange disease affecting Tasmanian wombats could eventually be brought under control for wild individuals and populations.

Wombats

- Squat and furry, wombats are small burrow-dwelling marsupials.
- They are native to Australia.
- The bare-nosed wombat is listed as Least Concern under the IUCN.
- Bare-nosed wombats are herbivorous and mainly feed on native grasses, tussocks and sedges. Occasionally they will also eat bark, herbs and moss.

- They are largely nocturnal and walk on all four limbs.

- They are not a threatened species.

- The greatest threat to the species is sarcoptic mange, which occurs throughout their entire range.

19. Tamil Yeoman (Cirrochroa Thais)

- The butterfly species endemic to Western Ghats has been declared the state butterfly of Tamil Nadu.

- Uniformly orange in colour with a dark brown outer ring, Tamil Yeoman is among the 32 butterfly species found in the Western Ghats.

- This butterfly species moves in groups in large numbers, but only in a few places.

- Also known as Tamil Maravan, which means warrior, these butterflies are found mainly in the hilly areas.

20. Tiger Census

Context:

- The four-year tiger census report, Status of Tigers in India, 2018, released by Prime Minister Narendra Modi, shows numbers of the big cat have increased across all landscapes.

A look at numbers

- The total count has risen to 2,967 from 2,226 in 2014 — an increase of 741 individuals (aged more than one year), or 33%, in four years.

- This is by far the biggest increase in terms of both numbers and percentage since the four-yearly census using camera traps and the capture-mark-recapture method began in 2006.

- The number that year was 1,411; it rose by 295 (21%) to 1,706 in 2010; and by 520 (30%) to 2,226 in 2014.

Why is a tiger census needed?

- The tiger sits at the peak of the food chain, and its conservation is important to ensure the well-being of the forest ecosystem.

- The tiger estimation exercise includes habitat assessment and prey estimation. The numbers reflect the success or failure of conservation efforts.

- A steep fall in the tiger population could lead to a rise in the herbivore population, which could destroy forests by feeding on trees and plants. That is why the decline in tiger numbers in 2005-2006 rang alarm bells amongst wildlife scientists and conservationists, prompting the government to form a Tiger Task Force, and tighten protection measures.

- This is an especially important indicator in a fast-growing economy like India where the pressures of development often run counter to the demands of conservation.

- The Global Tiger Forum, an international collaboration of tiger-bearing countries, has set a goal of doubling the count of wild tigers by 2022. More than 80% of the world's wild tigers are in India, and it's crucial to keep track of their numbers.

Where has the tiger population increased the most?

- The biggest increase has been in Madhya Pradesh — a massive 218 individuals (71%) from 308 in 2014 to 526.

  * While Pench Tiger Reserve in Madhya Pradesh recorded the highest number of tigers,

  * Pench is well managed because it has a season-wise biodiversity plan as well as flying squads and tactical patrolling for managing security.

  * Sathyamangalam Tiger Reserve in Tamil Nadu registered the maximum improvement since 2014.

- In Maharashtra, the number has gone up from 190 to 312 (64%), and in Karnataka, from 406 to 524 (118, or 29%).

- Uttarakhand has gained over 100 tigers (340 to 442; 30%)

  * Madhya Pradesh saw the highest number of tigers at 526.

  * Karnataka came second with 524 tigers, followed by Uttarakhand with 442 tigers.

- The remarkable fact about the latest census shows that the tiger population has increased by more than 100 per cent from 2006, when the numbers of the big cat had hit an all-time low of 1,411 — the animal had been completely wiped out from some reserves such as Sariska in Rajasthan.

- Since tigers keep moving between states, conservationists prefer to talk about tiger numbers in terms of landscapes.

- India's five tiger landscapes are: Shivalik Hills and Gangetic Plains, Central Indian Landscape and Eastern Ghats, Western Ghats, North-East Hills and Brahmaputra Plains, and the Sundarbans.

Which states/regions have done badly?

- Only one of the 20 tiger-bearing states has seen a fall in numbers — Chhattisgarh, where the census counted 19 tigers, significantly fewer than the 46 of 2014. The report has cited law and order as the reason — large parts of the state are hit by the Maoist insurgency.

  * While all the States saw a "positive" increase, Chhattisgarh and Mizoram saw a decline in tiger population.

- Greater conservation efforts are needed in the "critically vulnerable" Northeast hills and Odisha.

- No tiger has been found in the Buxa, Palamau and Dampa reserves.

How were the estimates reached?

The census was carried out in four phases.

- Phases 1 and 2 covered forest beats, generally spread over 15 sq km each, by Forest Departments, to collect signs of tiger presence like scat and pugmarks.

* Enumerators walked paths called line transects to estimate the abundance of prey.

* This was followed by sampling of plots along the transects to assess habitat characteristics, human impact, and prey dung density.

- In phase 3, the information was plotted on the forest map prepared with remote-sensing and GIS application.

  * Sample areas were divided in 2-sq-km parcels, and trap cameras were laid in these grids.

So, why have the numbers gone up?

- The success owes a lot to increased vigilance and conservation efforts by the Forest Department.

- Healthy increases in core area populations eventually lead to migrations to areas outside the core; this is why the 2018 census has found tigers in newer areas.

- Over the years, there has been increased focus on tigers even in the areas under the territorial and commercial forestry arms of Forest Departments.

  * The brightest spot in the non-protected tiger-bearing areas is the Brahmapuri division of Chandrapur district of Maharashtra, which has more than 40 tigers.

- The other important reason is increased vigilance, and the fact that organised poaching rackets have been all but crushed.

- The increased protection has encouraged the tiger to breed. Tigers are fast breeders when conditions are conducive.

- The rehabilitation of villages outside core areas in many parts of the country has led to the availability of more inviolate space for tigers.

- Also, because estimation exercises have become increasingly more accurate over the years, it is possible that many tigers that eluded enumerators in earlier exercises were counted this time.

There is, however, a flip side to the increase in the tiger population.

- As the animals spill out of protected areas, their proximity to human habitats increases.

- And, when humans and tigers come face to face, the big cats often pose serious threats to humans and their livestock. There have been several reports of human-tiger conflict in the past five years.

- Sustaining the country's tiger population will, therefore, require a deft balancing of the imperative of conservation with the needs of local people and the demands of infrastructure development.

Disturbing Incidents

- Tigress was beaten to death in fields near the Pilibhit Tiger Reserve.

- Poisoning-caused deaths of a tigress and her two cubs in Chandrapur, near the Tadoba Tiger Reserve in Maharashtra.

- Tigers, as well the animals they prey on, find it hard to cross roads; for instance, a tiger died near Dehradun in 2016 after being hit by a speeding vehicle.

Development without thought harming the tigers

- Relaxations in norms to allow for a widening of highway and railway networks are the new threats. Most tiger reserves have State or National Highways around them.

- The National Highway 7 (NH7), which connects Pench and Kanha tiger reserves, has just been widened.

  * A report on management effectiveness of tiger reserves was also released on World Tiger Day. The report rated Pench Tiger Reserve in Madhya Pradesh as the best in terms of good management practices.

  * Yet, tiger reserves cannot control what is around them; and the Pench tiger faces a new threat

- Apart from highways, railway and irrigation projects are coming up in tiger reserves, and the Ken-Betwa river interlinking project will submerge 100 sq. km of Panna Tiger Reserve.

Way forward

- It is imperative for the National Tiger Conservation Authority (NTCA) to analyse why some landscapes have lost tigers, when the entire programme has been receiving high priority and funding for years now at ₹10 lakh per family that is ready to move out of critical habitat.

- The conflict in opening up reserves to road-building has to end, and identified movement corridors should be cleared of commercial pressures.

- Hunting of prey animals, such as deer and pig, needs to stop as they form the base for growth of tiger and other carnivore populations.

- This is a time for thoughtful growth. Highways and railways should not be expanded to encroach into tiger areas; irrigation projects should also avoid the areas.

- Cost-benefit analyses need to take into account the needs of wild animals.

21. TRAFFIC

- It is the Leading Non-Governmental Organisation working globally on the trade of wild animals and plants in the context of both biodiversity and sustainable development.

- It was founded in 1976 as a strategic alliance of the World Wide Fund for Nature (WWF) and the International Union for the Conservation of Nature (IUCN)

- TRAFFIC also works in close co-operation with CITES.

- The organization's aim is to 'ensure that trade in wild plants and animals is not a threat to the conservation of nature'.

- It states that through research, analysis, guidance and influence, it promotes sustainable wildlife trade (the green stream work) and combats wildlife crime and trafficking (the red stream work).

- TRAFFIC's headquarters are located in Cambridge, United Kingdom

22. Vanishing wildlife: 22 species have gone extinct in India

Context

- Four species of fauna (animals) and 18 species of flora (plants) have gone extinct in India in the past few centuries, according to wildlife survey organisations.

Details

- According to the International Union for Conservation of Nature, a new study has shown that since 1750, more than double the number of plants have disappeared from the wild than birds, mammals and amphibians combined.

- As per information given by the Botanical Survey of India (BSI), 18 species of plants — four non-flowering and 14 flowering — have gone extinct.

- The notable among them are Lastreopsis wattii , a fern in Manipur discovered by George Watt in 1882 and three species from the genus Ophiorrhiza (Ophiorrhiza brunonis , Ophiorrhiza caudate and Ophiorrhiza radican), all discovered from peninsular India.

- Corypha Taliera Roxb, a palm species discovered in Myanmar and the Bengal region by William Roxburgh is also extinct.

Pink-Headed Duck/ Rhodonessa Caryophyllaceai

- It is a large diving duck that was once found in parts of the Gangetic plains of India, Bangladesh and in the riverine swamps of Myanmar but feared extinct since the 1950s.

- Numerous searches have failed to provide any proof of continued existence.

- IUCN: Critically Endangered

Himalayan Quail/ Ophrysia Superciliosa

- It is a medium sized bird belonging to the pheasant family.

- It was last reported in 1876 and is feared extinct.

- This species was known from only 2 locations in the western Himalayas in Uttarakhand, north-west India.

- IUCN: Critically endangered

23. Waorani/ Waodani/ Huaorani

- They are native Amerindians from the Amazonian Region of Ecuador

Background

- The Constitution of Ecuador gives the government the right to develop energy projects and extract minerals on any land, regardless of who owns it, but requires that communities are first consulted and properly informed about any projects and their impact.

- Ecuador Govt likewise was planning to open up more rainforest land and develop its oil and gas reserves in the hope of improving its sluggish economy and cutting its high fiscal deficit and foreign debt.

- The move had led to heightened tensions emerging between indigenous communities and oil companies in Ecuador.

Context

- A court in Ecuador has upheld a ruling preventing the government from selling land in the Amazon rainforest to oil companies, a move that is being termed a historic win for the Waorani indigenous tribe living there.

Details

- Three government bodies conducted a faulty consultation process with the community before putting their territory up for sale

  * Judges highlighted a number of ways in which the consultation process was inadequate and violated the community's right to self-determination.

- The ruling immediately suspends any possibility of selling the community's land for oil exploration.

- It also sets an important precedent for other communities in Ecuador's southern Amazon rainforest, trying to keep oil extraction out of their territories.

Importance of amazon to world

- The Amazon is considered the lungs of our Earth taking in enormous amounts of the carbon dioxide emitted by human activity and the burning of fossil fuels while providing us with the oxygen we breathe.

  * The Amazon Rainforest produces about 20 percent of the earth's oxygen.

  * The Amazon contains over 400 billion trees, which all absorb humongous amounts of CO2 from the atmosphere. So, if we were to lose the Amazon, the effects of global warming would very quickly become an immediate global problem.

- TThe Amazon Rainforest is said to be responsible for as much as 75% of its own rainfall, which feeds the nearby rivers

* The water from the rivers then flows directly into the ocean, maintaining extremely important ocean currents, and thus controlling the regional climate.

• For millions of years, mankind has used plants as a way to make medicine. The tribes in the Amazon still do this, and have totally perfected the chemical extraction process.

* It is believed that only 0.5% of the plant species found in the Amazon have been studied for their medicinal properties.

* This means that the Amazon may hold natural cures for some of the many diseases present today. However, if the Amazon Rainforest dies, then the continuation of these practices, and the discovery of these natural chemicals will never come to be.

HEALTH ISSUES

1. **Colistin banned in animal food industry**

   Context

   - The Union Ministry of Health and Family Welfare has issued an order prohibiting the manufacture, sale and distribution of colistin and its formulations for food-producing animals, poultry, aqua farming and animal feed supplements.

   Colistin

   - Colistin or polymyxin E is an old antibiotic, which has been used since 1959 for treating infection caused by Gram-negative Multi Drug Resistant Organism (MDRO)

   - Colistin is the last resort drug against multidrug resistant gram-negative infections such as pneumonia and bacteremia in critically ill patients in intensive care units

   Used as non-therapeutic purposes in animals.

   Their continued use in farming increases the chance that bacteria will develop resistance to them, leaving them useless when treating patients.

   - This includes its use for growth promotion (for example fattening of broiler poultry in less time and with less feed)

   - It is used for preventing diseases in healthy animals.

   - Colistin-resistant bacteria were found in food samples in India in meat, mutton, fish, fruits and vegetables in 2018.

   - When colistin fails, doctors are left with the limited option of using fosfomycin that costs nearly Rs 24,000 per day. This is very expensive and hence would be unaffordable to many patients. We would lose lives due to colistin-resistance if it is not timely contained

   WHO

   - In its AWARE tool, colistin has been marked 'Reserved', meaning it should only be used as a last resort when all other antibiotics have failed.

   - colistin is also listed as a Highest Priority Critically Important Antibiotic (HPCIA) in the WHO's list of critically important antimicrobials for human medicine.

   Colistin use worldwide

   Globally, several countries have banned colistin for animal use.

   - In China, for instance, colistin was banned for use in food animals in 2016 after mcr-1 gene, which confers resistance to colistin, was detected in food samples.

   - Japan and Malaysia also prohibit colistin use in food animals

   - Australia does not register colistin for use in food producing animals.

   - Many countries, Bangladesh, Sri Lanka, Thailand, Indonesia, Vietnam, Singapore and those of the European Union (EU), prohibit antibiotic use as growth promoters in animal feed. This by definition would also include prohibiting colistin.

   What did the order say?

   - The order issued, directed manufacturers of colistin and its formulations (since it is also used to treat humans) to affix a label on the container reading thus: Not to be used in food producing animals, poultry, aqua farming and animal feed supplements: on the package, insert and promotional literature.

   Way forward

   - Apart from laws Consumer awareness is need of the hour, rather than regulation. In India, that level of awareness doesn't exist.

   - This needs social change. It needs leaders, it needs stories, and it needs organisations. So a great level of awareness is an important call that needs to be taken

   - It has to be given to a person only when the prescription is given to Chemist

2. **Dolutegravir**

   Context

   - Based on new evidence assessing benefits and risks, the WHO recommends the use of the HIV drug dolutegravir (DTG) as the preferred first-line and second-line treatment for all populations, including pregnant women and those of childbearing potential.

   Details

   - It is an antiretroviral medication used, together with other medication, to treat HIV/AIDS

   - It is on the World Health Organization's List of Essential Medicines

   - There is tentative concerns that use during pregnancy can result in harm to the baby

     * According to a release, initial studies had highlighted a possible link between DTG and Neural Tube Defects (birth defects of the brain and spinal cord) in infants born to women using the drug at the time of conception.

* But new data from two large clinical trials comparing the efficacy and safety of DTG and efavirenz (EFV) in Africa have now expanded the evidence base.

- The risks of neural tube defects are significantly lower than what the initial studies may have suggested

Significance

- It noted that DTG is more effective, easier to take and has fewer side effects than alternative drugs.

3. Ebola

Ebola Virus Disease (EVD) is a rare and deadly zoonotic disease most commonly affecting people and nonhuman primates (monkeys, gorillas, and chimpanzees). It is caused by an infection with one of five known Ebola virus species, four of which can cause disease in people:

- Ebola virus (Zaire ebolavirus)

- Sudan virus (Sudan ebolavirus)

- Taï Forest virus (Taï Forest ebolavirus, formerly Côte d'Ivoire ebolavirus)

- Bundibugyo virus (Bundibugyo ebolavirus)

- Reston virus (Reston ebolavirus), known to cause disease in nonhuman primates and pigs, but not in people

Transmission

- Ebola virus was first discovered in 1976 near the Ebola River in what is now the Democratic Republic of Congo. Since then, the virus has been infecting people from time to time, leading to outbreaks in several African countries.

- When someone gets infected with Ebola, they will not show signs or symptoms of illness right away. The Ebola virus CANNOT spread to others until a person develops signs or symptoms of EVD. After a person infected with Ebola develops symptoms of illness, they can spread Ebola to others.

The virus spreads through direct contact (such as through broken skin or mucous membranes in the eyes, nose, or mouth) with:

- Blood or body fluids (urine, saliva, sweat, feces, vomit, breast milk, and semen) of a person who is sick with or has died from Ebola Virus Disease (EVD)

- Objects (such as needles and syringes) contaminated with body fluids from a person sick with EVD or the body of a person who died from EVD

Symptoms of Ebola Virus Disease (EVD) include:

- Fever

- Severe headache

- Muscle pain

- Weakness

- Fatigue

- Diarrhea

- Vomiting

- Abdominal (stomach) pain

- Unexplained hemorrhage (bleeding or bruising)

Ebola Virus Ecology and Transmission
Ebola virus disease is a zoonotic disease. Zoonotic diseases involve animals and humans.

Animal-to-Animal Transmission
Evidence suggests that bats are the reservoir hosts for the Ebola virus. Bats carrying the virus can transmit it to other animals, like apes, monkeys, and duikers (antelopes), as well as to humans.

Spillover Event
A "spillover event" occurs when an animal (bat, ape, monkey, duiker) or human becomes infected with Ebola virus through contact with the reservoir host. This contact could occur through hunting or preparing the animal's meat for eating.

Human-to-Human Transmission
Once the Ebola virus has infected the first human, transmission of the virus from one human to another can occur through contact with the blood and body fluids of sick people or with the bodies of those who have died of Ebola.

Survivor
Ebola survivors face new challenges after recovery. Some survivors report effects such as tiredness and muscle aches, and can face stigma as they re-enter their communities.

Public Health Emergency of International Concern (PHEIC)

- It is an "extraordinary health event" that could spread to other countries and demanded a coordinated global response.

- This implies a situation that: is serious, unusual or unexpected; carries implications for public health beyond the affected State's national border; and may require immediate international action.

- It is a signaling to countries around the world that they should pay attention to the situation and contribute to the response.

- The WHO director-general decides when and where to apply the label after consulting a 10-member committee of experts.

  * That committee also recommends when to end the global health emergency.

  * This committee advises the Director General on the recommended measures to be promulgated on an emergency basis, known as temporary recommendations.

Stats

- The outbreak in Congo, officially declared on August 1, 2018, has killed nearly 1,700 people and made more than 2,500 people ill.

- Goma is a city of nearly 2 million people in eastern Congo. It lies on the border with Rwanda, the most densely populated country. Tens of thousands of people cross the border on foot each day, and health officials worry that Ebola could cross with them.

Earlier occasions

- February 2016 for Zika outbreaks in the Americas,

- August 2014 for Ebola outbreaks in western Africa,

- Spread of polio in May 2014

- The H1N1 pandemic in April 2009.

Impact

- It facilitates coordination between the WHO and countries around the world

- It can put pressure on wealthy countries and international organizations to donate money and personnel to fighting the disease.

Concerns

- The label can also spark fear in neighboring countries, which can lead to those countries shutting down travel or trade with the country at the epicenter of the health crisis.

  * The last time the WHO declared a global health emergency for an Ebola outbreak — in West Africa in 2014 — many countries stopped granting visas to people from Liberia, Guinea and Sierra Leone

- Congo's government raised concerns about affixing the emergency label to the outbreak, fearing it could generate paranoia and damage trade and travel.

- Some airlines also stopped flying to those countries, preventing health workers and supplies from reaching the disease's epicenter.

4. ## National Medical Commission (NMC) Bill

Context

- The National Medical Commission (NMC) Bill, seeks to replace the 63-year-old Medical Council of India (MCI) to reform the medical sector in India

Features of the bill

- The bill provides for the setting up of a medical commission in place of the Medical Council of India (MCI) and repeal of the Indian Medical Council Act, 1956.

- The NMC will have authority over medical education — approvals for colleges, admissions, tests and fee-fixation.

- The medical colleges will have to conform to standards the NMC will lay down. Once they conform and are permitted to operate, there would be no need for annual renewals.

- The bill provides that the National Medical Commission will have four autonomous boards,

    * Under-Graduate Medical Education Board,

    * Post-Graduate Medical Education Board,

    * Medical Assessment and Rating Board

    * Ethics and medical registration board.

- The Bill has also removed the exemption hitherto given to Central institutions, the AIIMS and JIPMER, from NEET for admission to MBBS and allied courses.

    * In doing so, the government has moved in the right direction, as there was resentment and a charge of elitism at the exclusion of some institutions from an exam that aimed at standardising testing for entry into MBBS.

Constitution of the National Medical Commission:

- The Bill sets up the National Medical Commission (NMC). Within three years of the passage of the Bill, state governments will establish State Medical Councils at the state level.

- The NMC will consist of 25 members, appointed by the central government.

    * The members will include a chairperson, who must be a senior medical practitioner and academic with at least 20 years of experience

- A Search Committee will recommend names to the central government for the post of Chairperson, and the part time members.

    * The Search Committee will consist of seven members including the Cabinet Secretary and five experts nominated by the central government (of which three will have experience in the medical field).

NMC Bill may help curb corruption in MCI

- Unlike MCI, the members of NMC will have to declare their assets at the time of assuming office and when they leave. They will also have to submit a conflict of interest declaration.

- The members will have to serve a two-year cooling-off period after their tenure, which, however, could be waived by the government if required.

National Exit Test (NEXT)

- Section 15 (1) of the bill proposes a common final-year MBBS exam NEXT

    * It will work as a licentiate examination, a screening test for foreign medical graduates, and an entrance test for admission in postgraduate programmes.

    * The new Bill has the provision for making national standards in medical education uniform

- Per se, it offers a definite benefit for students who invest much time and energy in five years of training in classrooms, labs and the bedside, by reducing the number of tests they would have to take in case they aim to study further.

Why single Exam?

- For the past few years, a separate NEET is being conducted for undergraduate and postgraduate courses. In addition there are different examinations for institutes such as the All India Institute of Medical Sciences and the Jawaharlal Institute of Postgraduate Medical Education and Research.

- This Act consolidates multiple exams at the undergraduate level with a single NEET and in turn avoids multiple counselling processes.

- NEXT will act as the final year MBBS examination across India, an entrance test to the postgraduate level, and as a licentiate exam before doctors can practise. It aims to reduce disparities in the skill sets of doctors graduating from different institutions.

- It would also be a single licentiate exam for graduates across the world. Thus, the government has in effect implemented a 'One-Nation-One-Exam' in medical education.

Concerns

- But according to doctors from All India Institutes of Medical Sciences (AIIMS) Merit should be the determining factor in securing a PG seat and the current NEET-PG should not be scrapped

- NEXT will undermine the federal system

Community Health Provider

- The Indian Medical Association (IMA) has raised concerned over Section 32 of the NMC Bill that provides for licensing of 3.5 lakhs non-medical persons or Community Health Providers to practise modern medicine.

- According to the Bill, the Commission may grant limited licence to practice medicine at mid-level as Community Health Provider to such person connected with modern scientific medical profession who qualifies such criteria as may be specified by the regulations.

- According to the Bill, the Community Health Provider may prescribe specified medicine independently, only in primary and preventive healthcare,

    * But in cases other than primary and preventive healthcare, he may prescribe medicine only under the supervision of medical practitioners registered under sub-section (1) of section 32.

Empowering of community health providers for limited practice

- The WHO prescribes the doctor-to-patient ratio as 1:1,000.

    * In India, this ratio is as 1:1,596.

- The country is short of five lakh doctors.

    * This gap is felt more in rural areas where the shortage is acute.

* Most of the qualified doctors are concentrated in tertiary care hospitals in cities.

- Even with about 70% of India's population residing in the rural areas, the present ratio of doctors in urban and rural areas is 3.8:1

  * 27,000 doctors serve about 650,000 villages of the country.

- A recent study by the World Health Organisation shows that nearly 80% of allopathic doctors in the rural areas are without a medical qualification.

- The NMC Act attempts to address this gap by effectively utilising modern medicine professionals, other than doctors in enabling primary and preventive health care.

- Evidence from China, Thailand and the United Kingdom shows such integration results in better health outcomes.

  * Chhattisgarh and Assam have also experimented with community health workers.

Concerns

- Doctors claim, under Section 32 of the NMC bill, nearly 3.5 lakh community health providers – mostly quacks-- would be legalised to prescribe drugs.

- The term Community Health Provider has been vaguely defined to allow anyone connected with modern medicine to get registered in NMC and be licensed to practise modern medicine. This means persons without medical background are becoming eligible to practise modern medicine and prescribe independently.

The Bill puts a cap on fees on 50 per cent of seats in MBBS and PG colleges.

- The Indian Medical Council Act, 1956 has no provision for fee regulation.

- Until now, 'not-for-profit' organisations were permitted to set up medical colleges, a process involving enormous investments and a negotiation of cumbersome procedures.

- The NMC Act removes the discretionary quota by using a transparent fee structure. It empowers the NMC to frame guidelines for determination of not only fees but all other charges in 50% of seats in private colleges to support poor and meritorious students.

- While a cap on fees is necessary, there is also a need for incentives to attract private investors.

  * In any case, the transparency that NEXT provides would lead to fee regulation through market forces.

  * The Act also provides for rating of colleges.

  * Thus, reducing entry barriers for setting up medical colleges, along with their rating, is expected to benefit students. They would be able to make an informed decision before seeking admission.

Concerns

- This increases the number of seats for which private institutes will have the discretion to determine fees.

- At present, in such institutes, state governments decide fees for 85 per cent of the seats.

- There have also been suggestions to put a cap on the fees charged by unaided medical institutes.

Conclusion

- The efforts of successive governments have now culminated with the NMC Act replacing the IMC Act. There is no denying that medical education needs continuous reforms in order to usher in improvements in health care.

- There cannot be just one solution. The NMC Act is a serious attempt to meet the primary need of more medical professionals in the country; it is a beginning.

5. Smoking e-cigarettes is more injurious to health

Background

- The Narendra Modi government's proposal to ban e-cigarettes and other Electronic Nicotine Delivery Systems (ENDS) needs to be welcomed as such a move will ensure that Indians, especially, children, are kept away from these pernicious products.

Implementation of directive

- The Health Ministry in 2018 issued an advisory asking the States to ensure that products like e-cigarettes and e-nicotine-flavoured hookahs are not manufactured, distributed advertised or sold.

- Following this, 15 States, including Karnataka, Kerala, Tamil Nadu, Jammu and Kashmir and Mizoram, banned them.

- Several of the bans were under the Drugs and Cosmetics Act or the Poisons Act, under which nicotine was included as a 'poison'.

- Further, the Central Board of Indirect Taxes and Customs (Anti-Smuggling Unit) and the Drug Controller General of India directed all their officials to ensure compliance with the advisory.

Recommendation by expert bodies

- Such a ban has also been recommended by the Indian Council of Medical Research (ICMR), which called for a "complete prohibition on ENDS and e-cigarettes in India in the greater interest of protecting public health, in accordance with the precautionary principle preventing public harm from a noxious agent."

How business attract Youth?

- Introduced about 10 years ago in India, e-cigarettes rapidly gained popularity, especially among the youth.

- A misconception among students, parents and teachers that these cigarettes are free of nicotine also contributed to their appeal.

- The reality is that the tobacco industry, hit by the success of the state's efforts to reduce tobacco use, had developed such products to hold on to customers who would have otherwise quit.

- Research suggests that many youngsters, who would otherwise have never started using nicotine, took up conventional smoking after being introduced to e-cigarettes.

- While the tobacco companies promote e-cigarettes as a 'less risky' smoking option, some industry documents show that their real goal is to introduce ENDS products as an alternative to quitting.

- One company started selling its e-cigarette brand in 2014, promising that it will give the consumers the 'pleasure of smoking any time anywhere' (suggesting that they could use the product even at public places, where smoking is banned).

- The tobacco industry plans to expand by achieving these twin objectives — attracting more youngsters and reducing quitting by adults. After all, the industry's end goal is profit and not improvement in health indicators. The fact that the industry continues to produce and sell conventional cigarettes, its flagship product that brings it the greatest amount of profit, despite marketing e-cigarettes as an alternative is evidence enough of its sinister design.

Concerns

- Dozens of studies show that smokers who use e-cigarettes are less, not more, likely to quit smoking.

- In fact, most of them become 'dual users', continuing to smoke cigarettes while also taking to e-cigarettes. This makes them vulnerable to added health risks.

- A recent white paper by the ICMR has said that

  * ENDS users are almost at the same risk of contracting lung diseases and cancer as conventional cigarette users. In fact, 'dual users' are at greater risk of heart attacks.

- Further, the industry claims that the sale of ENDS products does not violate any regulations despite the fact that the companies are in clear violation of WHO's Framework Convention on Tobacco Control, which prohibits the sale of any product that appeals to minors.

  * The marketing of ENDS products, targeted at youth, also impacts minors and schoolchildren. The industry's assertion that e-cigarettes are safe is contradicted by the many fires and explosions caused by devices, resulting in injuries, loss of lives and property.

  * Further, their accidental ingestion by children has also caused some deaths.

Way forward

- All these points make it clear that the Central government has shown great foresight in bringing out the ban proposal, a move that is likely to avoid causing another epidemic of nicotine addiction in the country.

- The ban needs to apply to all forms of ENDS products, including all 'heat-not-burn' devices that profess to be an alternative to the existing tobacco products.

6. UNAIDS

- It was Established by ECOSOC in 1994, UNAIDS officially launched it in 1996

- The Joint United Nations Programme on HIV and AIDS (UNAIDS) is the main advocate for accelerated, comprehensive and coordinated global action on the HIV/AIDS pandemic.

- The mission of UNAIDS is to lead, strengthen and support an expanded response to HIV and AIDS that includes preventing transmission of HIV, providing care and support to those already living with the virus, reducing the vulnerability of individuals and communities to HIV and alleviating the impact of the epidemic.

- UNAIDS is headquartered in Geneva, Switzerland, where it shares some site facilities with the World Health Organization.

Context

- There are voices questioning the relevance of UNAIDS for the global response.

- There are suggestions that AIDS should go back to the World Health Organisation (WHO) where it originally belonged to some 25 years ago.

Notable things performed this organisation

- The UN General Assembly Special Session (UNGASS) 2001 was a game changer

- The creation of a Global Fund to Fight AIDS, Tuberculosis and Malaria (GFATM) and the slashing of prices of AIDS drugs by Indian generics have brought treatment within the reach of many countries.

- Today some 22 million people are under Anti-Retroviral Therapy (ART) and preventing mother-to-child transmission of HIV has become an achievable goal by 2020.

  * ART are medications that treat HIV. The drugs do not kill or cure the virus. However, when taken in combination they can prevent the growth of the virus. When the virus is slowed down, so is HIV disease. Antiretroviral drugs are referred to as ARV.

- The organisation has provided leadership to many countries which in 10 years (2001-2010) could halt the epidemic and reverse the trend.

The epidemic is still alive

However, at a time when it should be leading the global response to end AIDS as a public health threat, the organisation has started to falter in its strategy.

1. First came the extremely optimistic messaging blitz that the world was going to see the end of AIDS very soon. This is far from true.

- Regions such as Eastern Europe and Central Asia and West Asia are nowhere near reaching that goal, with many countries such as Russia witnessing a raging epidemic among drug users and men who have sex with men (MSM) communities.

- With the top leadership in UNAIDS exhorting countries to bring AIDS "out of isolation" and integrate with health systems, the political leadership in many countries have thought that AIDS is no more a challenge.

2. Second has been the thinking that the AIDS epidemic can simply be treated away by saturating anti-retroviral (ARV) coverage.

- It is forgotten that AIDS affects the poor, the marginalised and criminalised communities

- The ever increasing number of young people who are joining the ranks of vulnerable populations do not get prevention messages like in the past

- National programmes do not any more consider condoms, sexual education and drug harm reduction as central to the prevention of HIV transmission that results from unprotected sex and drug use.

- Funding for non-governmental organisations and community-based organisations working on prevention has virtually dried up.

3. Third has been the weakening of country leadership of UNAIDS in many high-prevalence countries.

- Senior country-level positions are, in many instances, held by people who do not possess the core competence to constructively engage political leadership to undertake legal reforms and provide access to services to marginalised populations.

4. Fourth, the biggest setback has been the lost voice of vulnerable communities

- Activism surrounding AIDS has suddenly fizzled out emboldening many countries, especially in Africa, to further stigmatise and discriminate by enacting new laws that criminalise vulnerable sections of society.

Conclusion

- With 1.7 million new infections and one million deaths occurring every year, we can't afford to drop the ball half way.

- The commitment to end AIDS by 2030 is ambitious but not impossible to achieve. What we need is a re-energised UNAIDS with a strong and fearless leadership from a person of high integrity and commitment along with a sincere effort to remove the deadwood from the organisation.

- Any thought of winding it up or giving the mandate back to WHO would be suicidal at this moment.

ART AND CULTURE

1. Borgeet

- A Borgeet is a vaishnava devotional song, popular in Assam
- Borgeets were composed by Srimanta Sankardev and Sri Madhavdev in 15th to 16th century. They were written in Brajaboli language.
- Borgeets are lyrical songs with specific raga
- Borgeets are practiced in Sattras, the monasteries of Ekasarana Dharma.

2. Jaipur gets UNESCO World Heritage tag

Context

- The Walled City of Jaipur, known for its iconic architectural legacy and vibrant culture, made its entry into the UNESCO World Heritage Site list.

Details

- The historic walled city of Jaipur in Rajasthan, was founded in 1727 AD under the patronage of Sawai Jai Singh II. It is after whom the city is named
- The city was nominated for its value of being an exemplary development in town planning and architecture that demonstrates an amalgamation
    * In it shows an interchange of ancient Hindu, Mughal and contemporary Western ideas
    * It was one of the earliest planned cities of modern India, designed by Vidyadhar Bhattacharya
- In addition, Jaipur City is an exceptional example of a late medieval trade town in South Asia and defined new concepts for a thriving trade and commercial hub. In addition, the city is associated with living traditions in the form of crafts that have national and international recognition

From other parts of the world

- The six other cultural sites added to the list are the Dilmun burial mounds (Bahrain); the Budj Bim cultural landscape (Australia); the archaeological ruins of Liangzhu (China); the Ombilin coal mining site of Sawahlunto (Indonesia); the Mozu-Furuichi Kofun group of ancient mounded tombs (Japan); and the Plains of Jars containing the megalithic jar sites in Xiengkhouang (Lao People's Democratic Republic).
- The committee also voted to add Iran's Hyrcanian forests and Migratory Bird Sanctuaries along the Coast of Yellow Sea-Bohai, Gulf of China, to its World Heritage List, praising the regions for their "remarkable" biodiversity.

- Myanmar's ancient capital of Bagan has been included in the list.
    * It includes more than 3,500 stupas, temples, monasteries and other structures built between the 11th and 13th centuries, is expected to boost the country's tourism sector.
- The German city of Augsburg was also granted World Heritage status for its over 800-year-old water management system boasting an aquaduct, water towers, ornate fountains, canals and hundreds of bridges.

3. JATAN: Virtual Museum software

- It is used for creating the digital collections in various museums and digital archival tools that are used in background for managing the National Portal and Digital Repository for Indian Museums.
- The National Portal and Digital Repository for Indian Museums is developed and hosted by Human Centres Design and Computing Group, C-DAC, Pune, as per the agreement with Ministry of Culture

4. Pothamala menhirs stand guard on ancient necropolis

Context

- The sighting of new menhirs, perhaps the largest-ever recorded in Kerala, on the Pothamala hills in the Kerala-Tamil Nadu border, has thrown light on the possible existence of a major prehistoric necropolis (designed cemetery) there.
- Menhir is a tall upright stone of a kind erected in prehistoric times in western Europe.
- Menhirs can be found solely as monoliths, or as part of a group of similar stones.

Details:

- The menhirs were identified by a team of historians.
- The Pothamala hills housed hundreds of cobbled stone structures, pointing to the existence of a structured graveyard of a prehistoric civilisation.
- The largest menhir found was 20 ft tall and 6 ft wide with a thickness of 5 ft.
- The menhirs were planted in a specific geometrical pattern on a cluster of hills.
- The exquisite natural settings of the hills and dales at Pothamala made the yet-to-be explored megalithic site different from similar sites spotted in other parts of the State. Most of these structures were oriented in the east-west direction.

- The megalithic stone sentinels at Pothamala might hold the key to hitherto unexplored facets of a civilisation that dated back around 3,000 years.

- He urged the Archaeological Survey of India and the Archaeology Department to conduct a full-scale excavation and detailed study of this megalithic site without delay.

Concern:

- Seventy megalithic sites have already been identified in different parts of Idukki by researchers and historians, including 40 megalithic sites in Udumbanchola taluk itself.

- But no serious attempts have been made to understand their distribution pattern.

5. **Safdarjung's Tomb/ Safdarjung Ka Maqbara**

- It is a sandstone and marble mausoleum in Delhi

- Architectural Style: Mughal Empire style

- This mausoleum built by Safdarjung's son Nawab Shujaud Daula

- The tomb is surrounded by a garden in the Mughal charbagh style.

- The Safdarjung tomb, the last monumental tomb garden of the Mughals, was planned and built like an enclosed garden tomb in line with the style of the Humayun tomb.

Context

- Culture Minister inaugurates the architectural illumination of the historic Safdarjung Tomb

6. **Vyasatirtha**

- He was a Madhva scholar and poet belonging to the Dvaita order of Vedanta.

- Sri Vyasaraja Tirtha was the Raja Guru (royal spiritual teacher) for Sri Krishnadevaraya, the Vijayanagar Emperor.

- His works include Nyayamruta, Tatparya Chandrika and Tarka Tandava (collectively called Vyasa Traya) documented and critiqued an encyclopaedic range of sub-philosophies in Advaita, Visistadvaita, Mahayana Buddhism, Mimamsa and Nyaya

- He has penned several kirtanas under the name of Krishna including the classical Carnatic song Krishna Ni Begane Baaro.

- For his contribution to the Dvaita school of thought, he, along with Madhva and Jayatirtha, are considered to be the three great saints of Dvaita (munitraya).

Context

- The Brindavana (tomb) of Sri Vyasaraja Tirtha, a renowned saint of the Madhwa tradition at Anegundi near Hampi, was destroyed

- It is one of the nine Brindavanas at Nava Brindavana, on the banks of the Tungabhadra.

- Prima facie it looks as the act of treasure hunters

GOVERNANCE

1. Automated Facial Recognition System (AFRS)

Context:

- The Central government wants to create a "repository of photographs of criminals in the country," and wants to put a system in place to track "missing children and unidentified dead bodies," through facial recognition.

Details

- The AFRS solution will be a web-based application hosted at the NCRB data centre in Delhi, with connectivity to police stations through the Crime and Criminal Tracking Network and Systems (CCTNS).

- The system shall offer logical algorithms and user-friendly, simple graphical user interface making it easy to perform facial matching. Face images can be captured from CCTV feeds and alerts generated if a blacklist match is found.

- The system would have the option to upload bulk subject images and generate alerts if images match with the registered faces in the database.

- The system shall be able to broadly match a suspect or criminal's photograph with a database created using images available with passport, CCTNS, prisons, state or national automated fingerprint identification system or any other image database available with the police/other entity.

- The RFP said the system should be able to identify faces of individuals by extracting features, contours and other prominent points. It should be able to match facial images with change in facial expression, direction, angle, lighting, age, hairstyle, beard, glasses, scars, marks and tattoos.

- It will enable a hand-held mobile with an app to capture a face on the field and get the matching result from the backend server. Authorised requests for search, matching and verification of facial image would come from police stations

Concerns

- No data protection law yet

- Surveillance framework is opaque, vague and prone to misuse. AFRS will not only create a biometric map of our faces, but also track, classify, and possibly anticipate our every move.

- Can lead to 360 degree profiles

  * The system will treat each person captured in images from CCTV cameras and other sources as a potential criminal, creating a map of her face, with measurements and biometrics, and match the features against the CCTNS database.

  * This means that we are all treated as potential criminals when we walk past a CCTV camera — turning the assumption of "innocent until proven guilty" on its head.

- The use of AFRS raise issues of privacy and security and questions about how many agencies will access the system and what sort of safeguards are proposed.

  * Facial recognition makes data protection close to impossible as it is predicated on collecting publicly available information and analyzing it to the point of intimacy.

  * It can also potentially trigger a seamless system of mass surveillance, depending on how images are combined with other data points.

  * Chilling effect is a change in individual behavior which is legal, but considered deviant. Fearing social judgment or sanctions, people routinely self-censor their words and actions. But with CCTVs and AFPRs systems, the risks are greater.

- The concern about potential misuse of the system for purposes other than criminal investigation and the legal framework governing its use has been highlighted by privacy and transparency activists.

Technical Issues

- Accuracy rates of facial recognition algorithms are particularly low in the case of minorities, women and children, as demonstrated in multiple studies across the world.

- Use of such technology in a criminal justice system where vulnerable groups are over-represented makes them susceptible to being subjected to false positives (being wrongly identified as a criminal). Image recognition is an extremely difficult task, and makes significant errors even in laboratory settings.

- Deploying these systems in consequential sectors like law enforcement is ineffective at best, and disastrous at worst.

- The notion that sophisticated technology means greater efficiency needs to be critically analysed.

Examples from the world

- A New York Times report revealed how the Chinese government was using a vast, 'secret' system of advanced facial recognition technology to track and control the Uighurs, a Muslim minority community.

- At least one study carried out at Massachusetts Institute of Technology has revealed that FRS from giants like IBM and Microsoft is less accurate when identifying females. In the US, many reports have discussed how such softwares are particularly poor at accurately recognising African-American women.

- Amazon's "Rekognition", incorrectly identified 28 members of US Congress as other people arrested for crimes.

- San Francisco in the US banned the use of facial recognition by the city's police and other agencies.

- Police departments in London are under pressure to put a complete end to use of facial recognition systems following evidence of discrimination and inefficiency.

  * An independent study of the use of facial recognition by London's Metropolitan Police found that the technologically, it is a failure in real world scenarios, reaching the wrong conclusion 81% of the time.

Conclusion

- Therefore it is crucial to have safeguards to prevent against this, and more importantly, to carry out feasibility studies and evidence about the use of technology in public spaces.

2. Automated Multi-modal Biometric Identification System (AMBIS)

Context

- Maharashtra became the first state to adopt a digital fingerprint and iris scanning system to aid police investigations.

AMBIS

- An AMBIS unit comprises a computer terminal, a camera, and iris, fingerprint, and palm scanners.

- It also includes a portable system to dust off and capture fingerprints from crime scenes.

- With the integration of the system with facial recognition from CCTV cameras, AMBIS enables the police to cross-reference and put faces to criminals whose fingerprints have been captured on paper over the decades, apart from solving fresh crimes.

How will it work?

- Under the system, every police station in the state will have a scanner which will be linked to the main server which is located at the state headquarters on a secured server.

- The hi-tech system ensures that there will be no data loss and has a back-up facility at a very high level.

- Another feature of AMBIS is that it can be interfaced with any other operating system, whereby data can be accessed anywhere, anytime

Automated Fingerprint Identification System (AFIS)

- AMBIS replaces the AFIS, which has been used by Indian law enforcement agencies to search finger and palm prints.

- However, AFIS has limited utility, providing only one-to-one fingerprint matches as compared multimodal matches possible with AMBIS.

- With facial recognition technology, the new system is also an upgrade on AFIS.

Significance

- The system will prove useful in identification of unidentified bodies, especially in cases where the body is mutilated, does not have an arm or a hand is lost. In such cases, the bare sole scan can help identify the body

- The major irrefutable advantage of the system is that with retinal scans, it will be difficult for criminals to escape the ambit of the law.

- Another feature of the system is that it can do facial recognition of suspects in cases of mob violence and mob lynching with the help of photographs and going through CCTV footages.

Conclusion

- AMBIS adopted by the Maharashtra Police will soon be replicated across the country, with the state government working with the National Crime Records Bureau in New Delhi to create standards to be used by other state police forces.

- The system is expected to be of help in more serious offences as its accuracy improves and the database expands

3. FCRA violation case against Indira Jaising's NGO

Context

- The Central Bureau of Investigation (CBI) is currently conducting raids at the residence and offices of senior lawyers Indira Jaising and Anand Grover.

- The CBI had registered a case against Lawyers Collective, an NGO run by senior lawyers Indira Jaising and Anand Grover, for alleged violations of Foreign Contributions Regulation Act (FCRA) on a complaint from the Ministry of Home Affairs.

Issue in Picture

- The case, which also mentions Grover as an accused, pertains to discrepancies in foreign contributions cited by the association in its returns filed with the MHA.

- In 2016, the MHA had cancelled the FCRA license of the NGO for allegedly using foreign contributions for "political purposes".

- Lawyers Collective, according to MHA, used Rs 13 lakh out of foreign contribution in advocacy with MPs or the media to organize rallies/dharnas, draft legislation meetings in 2009, 2011 and 2014.

FCRA

- The FCRA was enacted in 1976 in order to maintain strict control over voluntary organisations and political associations that received foreign fundings.

- In the year 1984, an amendment was made to the act requiring all the Non-Governmental Organisations to register themselves with the Home Ministry.

- In 2010, the act was repealed and a new act with strict provisions was enacted. It is a consolidating act passed by the Government of India.

- It seeks to regulate the foreign contributions or donations and hospitality (air travel, hotel accommodation etc) to Indian organizations and individuals and to stop such contributions which might damage the national interest.

- It is an act passed for regulating and prohibiting the acceptance and utilization of foreign contribution or foreign hospitality by companies, associations or individuals for such activities that could prove to be detrimental to the national interest and for matters connected therewith or incidental thereto.

- Since the Act is internal security legislation, despite being a law related to financial legislation, it falls into the purview of Home Ministry and not the Reserve Bank of India (RBI).

4. **Right to Information (Amendment) Bill, 2019**

While introducing the Bill, Minister of State for the Prime Minister's Office Jitendra Singh said that it was a gross anomaly to designate the CIC and ICs as equivalent to the CEC and the ECs respectively. He said this potentially equated CICs to Judges of the Supreme Court even though the order passed by CIC is liable to be challenged in a High Court.

They seek to amend Sections 13, 16, and 27 of the RTI Act.

Term/ Tenure

- As per the 2005 Act, The Chief Information Commissioner (CIC) and Information Commissioners (ICs) (at the central and state level) will hold office for a term of five years. They are not eligible for reappointment.

- The Bill removes this provision and states that the central government will notify the term of office for the CIC and the ICs.

- Concern: It has been acknowledged that one of the most important structural constituents of any independent oversight institution, i.e. the CVC, the Chief Election Commission (CEC), the Lokpal, and the CIC is a basic guarantee of tenure.

  * It was on the recommendation of the Parliamentary Standing Committee that the Information Commissioner and CIC were made on a par with the Election Commissioner and the CEC, respectively.

  * In the case of the Information Commissioners they are appointed for five years subject to the age limit of 65 years.

  * The manner in which the amendments are being pushed through without any citizen consultation, bypassing examination by the standing committee demonstrates amendments without even proper parliamentary scrutiny.

  * The mandatory pre-legislative consultative policy of the government has been ignored. Previous governments eventually introduced a measure of public consultation before proceeding with the amendments

Quantum of Salary

- As per the 2005 Act, the salary of the CIC and ICs (at the central level) will be equivalent to the salary paid to the Chief Election Commissioner and Election Commissioners, respectively. They cannot be varied to his disadvantage during service.

  * Similarly, the salary of the State CIC and state ICs (at the state level) will be equivalent to the salary paid to the Election Commissioners and the Chief Secretary to the state government, respectively.

- The Bill removes these provisions and states that the salaries, allowances, and other terms and conditions of service of the central and state CIC and ICs will be determined by the central government.

- Concern: This was done so that they can function in an independent and effective manner.

  * The deliberate dismantling of this architecture empowers the Central government to unilaterally decide the tenure, salary, allowances and other terms of service of Information Commissioners, both at the Centre and the States.

  * Apart from Section 13 which deals with the terms and conditions for the Central information Commission, in amending Section 16, the Central government will also control through rules, the terms and conditions of appointment of Commissioners in the States.

Deductions in Salary

- As The Act states that at the time of the appointment of the CIC and ICs (at the central and state level), if they are receiving pension or any other retirement benefits for previous government service, their salaries will be reduced by an amount equal to the pension.

  * Previous government service includes service under: (i) the central government, (ii) state government, (iii) corporation established under a central or state law, and (iv) company owned or controlled by the central or state government.

- The Bill removes these provisions.

Why was the changes made?

- When the amendments come into effect, the Centre could simply transfer any authority — be it the CIC or any of the SICs — in the event a case was thought to be directed against the interests of the government

- RTI helped with the cross-verification of the affidavits of powerful electoral candidates with official documents and certain Information Commissioners having ruled in favour of disclosure.

* It has been a lifeline for many of the 40 to 60 lakh ordinary users, many of them for survival.

• The RTI has been used brilliantly and persistently to ask a million questions across the spectrum — from the village ration shop, the Reserve Bank of India, the Finance Ministry, on demonetisation, non-performing assets, the Rafale fighter aircraft deal, electoral bonds, unemployment figures, the appointment of the Central Vigilance Commissioner (CVC), Election Commissioners, and the (non)-appointment of the Information Commissioners themselves.

* The information related to decision-making at the highest level has in most cases eventually been accessed because of the independence and high status of the Information Commission. That is what the government is trying to amend.

• The Supreme Court has termed the CIC and SICs as guardians of the Act and directed that CIC and ICs shall be appointed on the same terms and conditions as applicable to the Chief Election Commissioner/Election Commissioners.

* Interestingly, on the question of orders passed by the CIC, the fact is that even an election petition against an order of EC can be filed in the High Court and, quite evidently, this does not have any bearing on the poll body's constitutional stature.

Conclusion

• The RTI community is worried. But the RTI has been and will be used to withstand attacks on itself and strengthen the movement for transparency and accountability in India.

5. Why policemen kill themselves?

Background

• 2018 senior Maharashtra IPS officer Himanshu Roy committed suicide in Mumbai. He was suffering from cancer and resultant depression.

• Another IPS officer, Surendra Kumar Das, committed suicide in Kanpur in 2018 due to "family issues".

• Ajay Kumar of the Delhi Police, who was suffering from depression, chose to end his life in New Delhi in 2019.

Stats

• Over 940 police personnel committed suicide in the five years till December 2018. This includes personnel of the Central Armed Police Forces.

• As many as 54 Delhi Police personnel chose to end their lives in the last four years.

• In Tamil Nadu, 166 policemen took their lives between 2010 and 2014, while in Maharashtra and Kerala, the figure was 161 and 61, respectively.

• In the last three years, 105 personnel of the Central Reserve Police Force, entrusted with the onerous responsibility of looking after the internal security of the whole country, committed suicide.

Reasons for suicide

The reasons for suicide among the police are manifold.

• Police personnel have no fixed hours of duty. They are considered to be on duty all the time. This deprives them of the luxury of spending time with their families.

• They are frequently made to work for anywhere up to 16 hours a day. Families are ignored and this leads to familial conflicts.

• Festivals are given a go-by as they have to be on duty to ensure peace in their areas.

* K. Annamalai, a 2011 batch IPS officer of the Karnataka cadre, who resigned from service recently, said that though he enjoyed the challenges of being a police officer, he missed many important functions and "the small things in life".

• Denial of leave is another sore point that affects the efficiency of the police and leads to frustration.

* Though no superior generally likes to deny leave to his or her subordinates, operational requirements most often warrant a full-strength force to deal with varied law and order problems.

• Due to large vacancies in the police forces, a huge responsibility rests on the available personnel to maintain law and order.

• The health of police personnel has taken a toll because of erratic working hours and lack of physical exercise. Many of them are known to suffer from stress-related diseases such as depression and obesity. Unable to cope, they end their lives.

Measures to be taken

To arrest the growing incidence of suicides, the government needs to take multi-pronged steps with urgency.

• An acute shortage of personnel in the police has to be of immediate concern.

* In 2014, there was a shortage of over 5.6 lakh personnel against the sanctioned strength of 22.8 lakh.

* An in-depth study of the requirement of police personnel over the next decade would be conducive to plan recruitment and training in a phased manner.

• Senior officers need to identify personnel with deviant behaviour.

* The Delhi Police has taken a step forward in this direction to identify personnel with psychological disorders to put them through counselling sessions.

* Frequent interactions between officers and subordinates will help subordinates air their grievances freely.

* Solutions can be jointly worked out. Even if the grievances are not immediately redressed, it will be soothing for an officer to share his or her problems with a senior officer.

* It might even forestall a suicide attempt.

6. World Press Freedom Index

- Published every year since 2002 by Reporters Without Borders (RSF)

- The Index ranks 180 countries and regions according to the level of freedom available to journalists.

- It is a snapshot of the media freedom situation based on an evaluation of pluralism, independence of the media, quality of legislative framework and safety of journalists in each country and region.

- It does not rank public policies even if governments obviously have a major impact on their country's ranking.

- Nor is it an indicator of the quality of journalism in each country or region.

Global Ranking

- Norway is ranked first in the 2019 Index for the third year, followed by Finland and sweden

- At the bottom of the Index, both Vietnam (176th) and China (177th) have fallen one place and Turkmenistan (down two at 180th) is now last, replacing North Korea (up one at 179th).

- South Asia in general features poorly on the index, with Pakistan dropping three places to 142, and Bangladesh dropping four places to 150.

India's ranking and reason's for its status

- Over 94 •India's rank fell by two places to 140 from 138 — in 2016 it was 133 and in 2017 it was 136.

- Violence against journalists including police violence, attacks by Maoist fighters and reprisals by criminal groups or corrupt politicians is one of the most striking characteristics of the current state of press freedom in India.

- At least six Indian journalists were killed in connection with their work in 2018.

  * These murders highlighted the many dangers that Indian journalists face, especially those working for non-English-language media outlets in rural areas

- It found that an alarming rate of coordinated hate campaigns waged on social networks against journalists who dare to speak or write about subjects that annoy Hindutva.

- Women journalists are particularly at the receiving end, and covering sensitive but important topics of public interest such as separatism in Jammu and Kashmir and Maoist insurgency has become more difficult.

- Authorities use anachronistic sedition laws against journalists, who also face the wrath of militants and criminal gangs.

Analysis of the report

- In India, the Centre and several State governments have not merely shown extreme intolerance towards objective and critical reporting but also taken unprecedented measures to restrict journalism.

- The Finance Minister's recent order barring credentialed reporters from the Ministry's premises is a case in point.

  * The finance ministry issued a notice which read, "Entry of media persons, including those holding a PIB accredited card will be on the basis of prior appointment."

  * Most PIB-accredited journalists – a privilege given only to journalists after a certain number of years in the profession

- The number of countries regarded as safe, where journalists can work in complete security, continues to decline, while authoritarian regimes continue to tighten their grip on the media

Way forward

- The expression of concern by foreign countries or global bodies regarding human rights, religious violence or media freedom is routinely dismissed as external interference in India's sovereignty; the government should also manage the perception in the globalized world as it matters.

- If India is concerned about its reputation in terms of business and investment, it should be equally or even more concerned about its standing as a democratic,

GEOGRAPHY

1. **Deep Ocean Mission (DOM)**

   - It is an initiative of Ministry of Earth Sciences

   - It will help in improving India's position in Ocean Research Field.

   - The mission proposes to explore the deep ocean similar to the space exploration started by ISRO

     * It will focus on technologies for deep-sea mining, underwater vehicles, underwater robotics and ocean climate change advisory services

   India's Exclusive Rights to Explore Polymetallic Nodules

   - India was the first country to receive the status of a 'Pioneer Investor ' in 1987 and was given an area of about 1.5 lakh sq km in the Central Indian Ocean Basin (CIOB) for nodule exploration.

     * In 2002, India signed a contract with the ISA and after complete resource analysis of the seabed 50% was surrendered and the country retained an area of 75,000 sq km.

   - India has currently been allotted a site of 75,000 sq. km in the Central Indian Ocean Basin (CIOB) by the UN International Sea Bed Authority for exploitation of Poly Metallic Nodules (PMN). Polymetallic nodules (also commonly called manganese nodules)

     * These are rocks scattered on the seabed containing Iron, Manganese, Nickel and Cobalt.

     * Being able to lay hands on even 10% of that reserve can meet the energy requirement for the next 100 years.

   - The estimated polymetallic nodule resource potential is 380 million tonnes, containing 4.7 million tonnes of nickel, 4.29 million tonnes of copper and 0.55 million tonnes of cobalt and 92.59 million tonnes of manganese.

   - India's Exclusive Economic Zone spreads over 2.2 million sq. km. and in the deep sea, lies "unexplored and unutilised".

   Significance

   - The government is focusing on blue economy in terms of sustainable use of ocean resources for economic growth.

     * The Mission will help in leveraging the blue economy for the country's overall economic growth.

   - Besides identifying the mineral resource and developing technologies for mining and extraction, the programme has also resulted in high impact research as well as manpower development
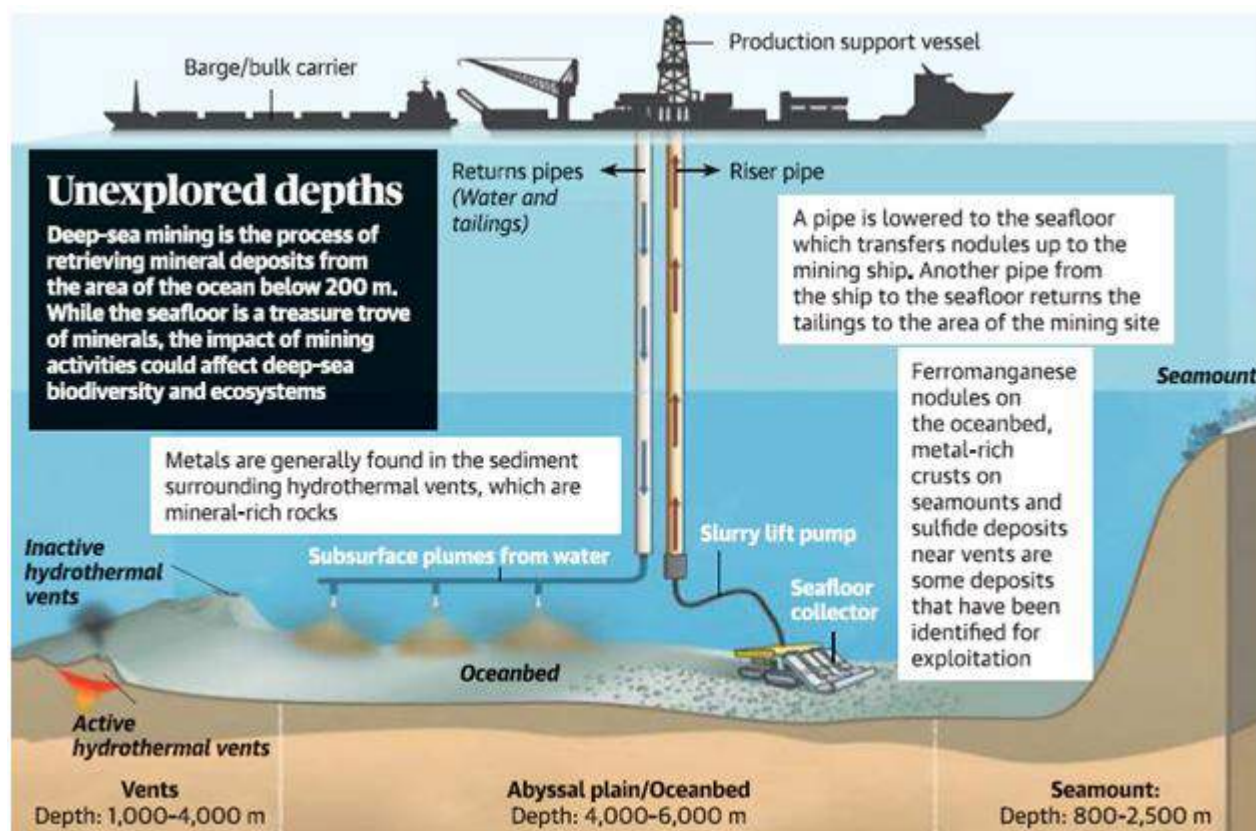
- These metals can be extracted and used in electronic devices, smartphones, batteries and even for solar panels.

What will be the environmental impact?

- According to the International Union for Conservation of Nature (IUCN), these deep remote locations can be home to unique species that have adapted themselves to conditions such as poor oxygen and sunlight, high pressure and extremely low temperatures. Such mining expeditions can make them go extinct even before they are known to science.

- The deep sea's biodiversity and ecology remain poorly understood, making it difficult to assess the environmental impact and frame adequate guidelines.

- Concerns have been raised about the noise and light pollution from the mining vehicles and oil spills from the operating vessels.

- Environmentalists are also worried about the sediment plumes that will be generated as the suspended particles can rise to the surface harming the filter feeders in the upper ocean layers.

Which are the other countries that are in the race to mine the deep sea?

- China, France, Germany, Japan, South Korea, Russia and also some small islands such as the Cook Islands, Kiribati have joined the race for deep sea mining.

- Most of the countries have tested their technologies in shallow waters and are yet to start deep-sea extraction.

Is deep sea mining economically viable?

- The latest estimate from the ISA says it will be commercially viable only if about three million tonnes are mined per year.

- More studies are being carried out to understand how the technology can be scaled up and used efficiently.

International Seabed Authority (ISA)

- The International Seabed Authority is an autonomous international organization established under the 1982 United Nations Convention on the Law of the Sea

- ISA is a body set up to regulate the exploration and exploitation of marine non-living resources of oceans in international waters.

    * It has responsibility for the regulation of seabed mining beyond the limits of national jurisdiction. It was established in 1994.

- The Authority has its headquarters in Kingston, Jamaica.

- India actively contributes to the work of International Seabed Authority.

2. **Ghaggar River**

- It originates in the Shivalik Hills of Himachal Pradesh

- It flows through Punjab and Haryana and gets lost in dry sands near Hanumangarh in Rajasthan.

- The river is known as Ghaggar before the Ottu barrage and as the Hakra downstream of the barrage

- The river flows only during the monsoon season.

3. **Milky Way's violent birth decoded**

Context:

- Scientists have decoded the birth of Milky Way galaxy stating that it was shaped as a result of collision with another smaller galaxy 10 bn years ago.

Details:

- High-precision measurements of the position, brightness and distance of around a million stars within 6,500 light years of the sun, obtained by the Gaia space telescope, helped pinpoint stars present before the merger and those that formed afterward.

- Galaxies of all types began to form relatively soon after the Big Bang explosion that marked the beginning of the universe some 13.8 billion years ago.

- Initially the galaxies were smaller than those seen today and were forming stars at a rapid rate.

- Galactic mergers were instrumental in configuring galaxies existing now.

- The distances between stars in a galaxy are so huge.

- When two galaxies intermix, change their global shape, more star formation may happen in one, and maybe the small one stops forming stars.

Milky Way – Gaia-Enceladus merger:

- The Milky Way, home to our sun and billions of other stars. The galaxy merged with another smaller galaxy in a colossal cosmic collision roughly 10 billion years ago, scientists said, based on data from the Gaia space observatory.

- The union of the Milky Way and the so-called dwarf galaxy Gaia-Enceladus increased our galaxy's mass by about a quarter and triggered a period of accelerated star formation lasting about 2 to 4 billion years.

- It was found that certain stars with higher content of elements other than hydrogen or helium arose in the Milky Way, and others with lower such content originated in Gaia-Enceladus, owing to its smaller mass.

- The merger was dramatic and helped shape the Milky Way.

- However, it was not a star-destroying calamity.

4. **Mount Elbrus**

- It is a dormant volcano in the Caucasus Mountains in Southern Russia, near the border with Georgia.

- With an elevation of 18,510 feet (5,642 meters), it is part of the Caucasus Range that straddles Asia and Europe
- This makes it the tallest mountain in Europe and one of the Seven Summits, the highest mountains in each of the continents and elite climbers aspire to summit all of them.

5. Mount Etna

- It is an active stratovolcano on the east coast of Sicily, Italy
- It lies above the convergent plate margin between the African Plate and the Eurasian Plate
- It is the highest active volcano in Europe outside the Caucasus
- It is the highest peak in Italy south of the Alps.
- The fertile volcanic soils support extensive agriculture, with vineyards and orchards spread across the lower slopes of the mountain and the broad Plain of Catania to the south.
- Mount Etna has been designated a Decade Volcano by the United Nations
- In 2013, it was added to the list of UNESCO World Heritage Sites

6. National Institute of Miners' Health (NIMH)

- NIMH was set up by Government of India in 1990 and registered as a Society under the Karnataka Societies Registration Act, 1960.
- The registered office of NIMH is located at Kolar Gold Fields, Karnataka and the Central Laboratory in Nagpur.
- The Institute conducts applied research in occupational health and hygiene and specializes in providing technical support services to mining and mineral based industry with special reference to metalliferous sector and endeavors for safe mines and healthy miners through research & development.
- The focus areas of NIOH include a vast array of areas related to occupational health which also includes, occupational medicine and occupational hygiene.

Context

- The Union Cabinet has approved to dissolve NIMH, an autonomous Institute under Ministry of Mines (MoM) and merge / amalgamate with ICMR-National Institute of Occupational Health (NIOH), Ahmedabad, Ministry of Health & Family Welfare (MoH&FW) with all assets and liabilities; and absorb all the employees of NIMH in NIOH in the similar post/pay scale as the case may be and their pay be protected.
- NIMH, ICMR, NIOH, MoM and Department of Health Research (DHR), MoH&FW to take actions required for effecting dissolution and merger/amalgamation of NIMH with NIOH.

Impact

- The merger / amalgamation of NIMH with NIOH will prove beneficial to both the Institutes in term of enhanced expertise in the field of occupational health besides the efficient management of public money.

7. TOI 270

- It is the name of the dwarf star and the planetary system recently discovered by NASA's Transiting Exoplanet Survey Satellite (TESS).
- TOI 270 is about 73 light years away from Earth, and is located in the constellation Pictor.
- Its members include the dwarf star, which is 40 per cent smaller than the Sun in size and mass, and the three planets or exoplanets (planets outside the solar system) that have been named TOI 270 b, TOI 270 c, and TOI 270 d.

TOI 270 b

- It is the innermost planet.
- Researchers expect it to be a rocky world about 25 per cent bigger than Earth.
- It is not habitable since it is located too close to the star — about 13 times closer than our Solar System's Mercury is from the Sun.

TOI 270 c and TOI 270 d

- On the other hand, TOI 270 c and TOI 270 d are Neptune-like planets because their compositions are dominated by gases rather than rock.
- Planet d, which is suspected to have a rocky core covered by a thick atmosphere, offers a surface unfavourably warm for the existence of liquid water, thereby rendering the planet potentially uninhabitable

EDUCATION

1. Central Educational Institutions (Reservation in Teachers' Cadre) Bill, 2019

Context

- The Central Educational Institutions (Reservation in Teachers' Cadre) Bill, 2019, passed by the Lok Sabha, replaces an ordinance promulgated in March 2019.

- Its main object is to restore the system of treating an institution or a university as a single unit to apply the reservation roster, and thus help fill 7,000 teaching vacancies.

Background

- The bill seeks to get around a 2017 judgment of the Allahabad High Court striking down University Grants Commission regulations that treated the institution as the unit for determining the roster, and directing that each department be the relevant unit.

  * The HC had held that if University is taken as a unit for every level of teaching for reservation then it would result in some departments or subjects having all reserved candidates and some having unreserved.

  * This would violate articles 14 (equality) and 16 (equal opportunity in matters of employment).

  * In short, reservation should be department-wise, and not institution-wise, the court ruled.

- The Supreme Court had also upheld Allahabad High Court ruling that reservation in faculty posts in universities should be applied department-wise and not by taking the total number of teaching positions across the departments

Features of the bill

- This Bill is to ensure reservations in teaching positions in central institutions for persons from Scheduled Castes/Tribes, socially and educationally backward classes, and those from economically weaker sections.

- According to the HRD Ministry, there are more than 7,000 teaching jobs lying vacant in central educational institutions. This Bill is aimed at filling those vacancies.

- The Bill will apply to 'central educational institutions' which include universities set up by Acts of Parliament, institutions deemed to be a university, institutions of national importance, and institutions receiving aid from the central government.

Are all Central institutions included in this Bill?

- No, there are exceptions. Those institutes deemed as institutions of excellence, and of national and strategic importance will not come under this law.

- These institutions are — Homi Bhabha National Institute (and all its constituent units), Tata Institute of Fundamental Research, North-Eastern Indira Gandhi Regional Institute of Health and Medical Science, National Brain Research Centre, Jawaharlal Nehru Centre for Advanced Scientific Research, Physical Research Laboratory, Space Physics Laboratory and Indian Institute of Remote Sensing.

- Minority institutions are also left out of this Bill.

Why the bill is better than the court Judgment?

- Reservation on the basis of department would mean fewer aspirants from OBC and SC/ST sections recruited as assistant professors.

- Having the department as the unit would mean smaller faculties would not have any reservation.

- In the roster system, it needs 14 posts to accommodate SC and ST candidates, as their turn would come only at the seventh and 14th vacancy.

- There may be no vacancies in many departments for many years, with none from the reserved categories for decades.

  * On the other hand, taking the institution as the unit would give more opportunities for these sections.

- According to the UGC's annual report for 2017-18, nearly two-thirds of assistant professors in Central universities are from the general category.

  * Their representation would go up further, as the present Bill also applies the 10% quota for the economically weak among those outside the reservation loop.

- Applying the court's department-wise roster norm would have deepened the sense of deprivation of the backward classes and SC/ST communities.

2. Digital Platforms by MHRD

- The Ministry of Human Resource Development has following three schemes in this regard:

Shodhganga

- It is a digital repository for research scholars across Universities and Institutes to deposit, re-use & share their Theses & Dissertations in digital formats including scanned documents.

- It is in open access to the world-wide academic community.

Shodhgangotri

- Under this initiative, research scholars / research supervisors in universities could deposit an electronic version of approved synopsis submitted by research scholars to the universities for registering themselves under the Ph.D. programme.

National Digital Library (NDL):

- "National Digital Library (NDL) in India" aims to collect, preserve and disseminate entire intellectual output of our country and provide online access from school level to postgraduate level, including technical education.

- Under this scheme, meta-data of e-resources within and outside the country are made available to the learners, on anyone, anytime, anywhere access mode.

- Some licensed resources as well as resources having no copyright violation are provided as complete document in digital formats, including scanned documents. Students across various.

3. Draft National Education Policy 2019

Background

- The Committee for Draft National Education Policy was Chaired by Dr. K. Kasturirangan

- The Committee was constituted by the Ministry of Human Resource Development

- The report proposes an education policy, which seeks to address the challenges of: (i) access, (ii) equity, (iii) quality, (iv) affordability, and (v) accountability faced by the current education system.

- The draft Policy provides for reforms at all levels of education from school to higher education. It seeks to increase the focus on early childhood care, reform the current exam system, strengthen teacher training, and restructure the education regulatory framework.

Early Childhood Care and Education

Currently, most early childhood education is delivered through anganwadis and private-preschools. However, there has been less focus on the educational aspects of early childhood.

- Hence, the draft Policy recommends developing a two-part curriculum for early childhood care and education. This will consist of:

  * Guidelines for up to three-year-old children (for parents and teachers), and

  * Educational framework for three to eight-year-old children. This would be implemented by improving and expanding the anganwadi system and co-locating anganwadis with primary schools.

- Currently, the RTE Act provides for free and compulsory education to all children from the age of six to 14 years. The draft Policy recommends extending the ambit of the RTE Act to include early childhood education and secondary school education. This would extend the coverage of the Act to all children between the ages of three to 18 years.

Curriculum framework:

The current structure of school education must be restructured on the basis of the development needs of students. This would consist of a 5-3-3-4 design comprising:

- five years of foundational stage (three years of pre-primary school and classes one and two),

- three years of preparatory stage (classes three to five),

- three years of middle stage (classes six to eight), and

- Four years of secondary stage (classes nine to 12).

Concerns

Two significant concerns identified from collaborative research by Ambedkar University and ASER Centre need to be addressed in implementation.

- The preschool curriculum was observed to be primarily a downward extension of the primary curriculum. Children were engaged for most of the time in copying or rote learning of alphabet and numbers, a practice which is developmentally inappropriate and can be counterproductive from the perspective of a sound foundation.

  * Children at this stage require a curriculum which emphasises play-based learning opportunities that promote engagement with play materials, picture books, building blocks, puzzles, etc. and include teacher-led storytelling, conversations, rhymes, emergent literacy and numeracy activities, outdoor and indoor play.

  * These opportunities will enable children to acquire not only the right foundation for development of skills prioritised for the 21st century, i.e. creativity, critical thinking, communication, collaboration and self-confidence, but also an abiding interest in lifelong learning.

- The second issue is the rigid structure of the primary grades' curriculum, which changes annually with every grade, thus providing little or no opportunity for children to revisit the previous year's curriculum.

  * The foundational stage can address this rigidity, but for this the requirement would be to develop a progressive curriculum upward from pre-school to primary stage. Further, it has to be in a spiral, not linear, mode with adequate flexibility to enable children to revisit concepts and learn at their own pace.

- This brings us to a third concern, which is a lack of discussion about what it takes to prepare teachers to successfully teach foundational literacy in a multilingual country. Instead, the document recommends recruiting volunteers and community members to support the acquisition of early literacy (even remedial instruction!) in the primary grades, albeit under the guidance of teachers.

  * This lends credence to a dangerous and erroneous idea that any literate person can teach literacy, and undercuts sophisticated understandings related to children's development and literacy learning that teachers ideally bring to their jobs. Volunteers can be used, but cannot be a primary mechanism that a national policy relies upon to deliver foundational literacy to students.

Higher Education

According to the All India Survey on Higher Education, the Gross Enrolment Ratio (GER) in higher education in India has increased from 20.8% in 2011-12 to 25.8% in 2017-18.

Regulatory structure and accreditation:

- The Committee noted that the current higher education system has multiple regulators with overlapping mandates. This reduces the autonomy of higher educational institutions and creates an environment of dependency and centralised decision making. Therefore, it proposes setting up the National Higher Education Regulatory Authority (NHERA).

- This independent authority would replace the existing individual regulators in higher education, including professional and vocational education.

- This implies that the role of all professional councils such as AICTE and the Bar Council of India would be limited to setting standards for professional practice.

- The role of the University Grants Commission (UGC) will be limited to providing grants to higher educational institutions.

Restructuring of higher education institutions:

Higher education institutions will be restructured into three types:

- Research universities focusing equally on research and teaching;

- Teaching universities focusing primarily on teaching; and

- Colleges focusing only on teaching at undergraduate levels. All such institutions will gradually move towards full autonomy - academic, administrative, and financial.

Concerns

The NEP has proposed a consolidation of the 40,000 odd colleges into effectively a three-tier system of 12,000 multi-disciplinary institutions. Colleges (or institutions) are to be classified as type I, which are primarily research institutions, type II, which do both teaching and research, and, type III, which will only do teaching.

- There is no mechanism, such as innovative curricula or extension units, for tier II or tier III institutions to work on local problems. It has no access or accountability to people or their representatives.

- Funds may largely go to tier I institutions to follow "world-class research". This will neither permeate to local colleges nor change state agencies

The Positives:

- Emphasis on Research and the National Research Foundation (NRF): The emphasis on research and the recommendation to create an autonomous NRF is an excellent one.

  * If India has to become a highly innovative society, it has to be fuelled by research.

  * As the policy says, we currently invest 0.69% of GDP on research as against 2-4% in China, the US, Israel and South Korea. An annual grant of Rs. 20,000 crores is proposed

- Emphasis on Foundational Learning: The second, equally important positive, is the emphasis for the first time in an Indian policy document, on Foundational Learning. We all know about the learning crisis that exists in India and it is acknowledged multiple times in the policy.

  * A lot of this learning crisis can be attributed to children not learning to read fluently by grades 2/3 and not learning fluent arithmetic operations by grade 4/5. For us as a country today, focussing on foundational learning is key.

- The policy acknowledges some important problems in the Indian education system: In acknowledging problems, the policy does not mince words. It says 'we have been almost fatally slow in the adoption of technology to improve the quality of education', and 'salary, promotion, career management, and leadership positions in the school system and beyond tend not to have any formal merit-based structures, but rather are based on lobbying, luck, or seniority' and further 'the teacher education sector has been beleaguered with mediocrity as well as rampant corruption.'

  * Unfortunately, the policy seems to be less effective in proposing concrete solutions to these problems but acknowledging a shortcoming is a key step towards any solution.

- Commitment to public education, investment in education and religious and other equity unequivocally re-affirmed: The draft policy re-affirms each of these and that is welcome. Only well- funded, public education can ensure that the quality of education a child receives is not dependent on her parental income and we need to strive towards that goal.

  * The policy makes these arguments well. The commitment that education should be a tool to reduce inequity in society is also well- made.

* India can never achieve greatness if stark divides that exist today continue in society.

Conclusion

- Therefore the NEP should have clear objectives that remain effective for a period of time like a decade or so

- Additionally, it should be evidence-based and strongly linked to ground realities as well as challenges.

4. Global Teacher Status Index

- The Global Teacher Status Index is based on in-depth opinion by Populus in 35 countries that explores the attitudes on issues ranging from what is a fair salary for teachers to whether they think pupils respect teachers to how highly people rank their own education system.

- There have been many international comparisons in education, but this the first time that the role of teacher status has been studied in-depth.

- In 2013, the Varkey Foundation conducted the first Global Teacher Status Index (GTSI13) to try and establish the answers to some of these questions

5. Paramarsh

- It is a University Grants Commission (UGC) scheme for Mentoring National Accreditation and Assessment Council (NAAC) Accreditation Aspirant Institutions to promote Quality Assurance in Higher Education.

- The scheme will be a paradigm shift in the concept of mentoring of institution by another well performing institution to upgrade their academic performance and enable them to get accredited by focusing in the area of curricular aspects, teaching-learning & evaluation, research, innovation, institutional values & practices etc.

How does it work?

- The Scheme will be operationalized through a "Hub & Spoke" model wherein the Mentor Institution, called the "Hub" is centralized and will have the responsibility of guiding the Mentee institution through the secondary branches the "Spoke" through the services provided to the mentee for self-improvement.

    * This allows a centralized control over operational efficiency, resource utilization to attain overall development of the mentee institution.

- The scheme will lead to enhancement of overall quality of the Mentee Institutions and enhance its profile as a result of improved quality of research, teaching and learning methodologies.

    * Mentee Institution will also have increased exposure and speedier adaptation to best practices.

- "Paramarsh" scheme will also facilitate sharing of knowledge, information and opportunities for research collaboration and faculty development in Mentee Institutions.

Significance

- The scheme is expected to have a major impact in addressing a national challenge of improving the quality of Higher Education in India.

- Under the Paramarsh scheme, the leading institutions will provide regular mentoring to help colleges achieve high quality standards.

6. Scheme for Trans-disciplinary Research for India's Developing Economy (STRIDE)

Context

- The University Grants Commission (UGC) has approved a new scheme STRIDE.

Details

- Broadly, STRIDE will provide support to research projects that are socially relevant, locally need-based, nationally important and globally significant.

- STRIDE shall support research capacity building as well as basic, applied and transformational action research that can contribute to national priorities with focus on inclusive human development.

- STRIDE shall support creation, development and integration of new ideas, concepts and practices for public good and strengthening civil society.

STRIDE Objectives

- To identify young talent, strengthen research culture, build capacity, promote innovation and support trans-disciplinary research for India's developing economy and national development.

- To fund multi institutional network high-impact research projects in humanities and human sciences.

7. Transformation of Higher Education in India

The article talks about the need to focus on transforming higher education in India, and channelize the resources for implementing solutions instead of spending on drafting Educational policies.

Details:

- The government has begun to rethink about higher education policies through the draft NEP (National Education Policy) and EQUIP (Education Quality Upgradation and Inclusion Programme).

- These is the latest, and seemingly among the most elaborate, in an endless series of official reports and programmes aimed at improving higher education in independent India.

- The Radhakrishnan Commission of 1949, the National Education Policies of 1968 and 1986, the Yashpal Committee of 2009, the National Knowledge Commission in 2007, and the draft NEP of 2019 have all basically said the same thing.

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- While it is always valuable for various government committees to point to the importance of higher education for economy and society, it is not necessary to convene many experts through initiatives such as EQUIP to tell the government and the academic community what they already know.

- Everyone agrees that higher education needs significant improvement, especially as India seeks to join the ranks of the world's premier economies.

- Perhaps the time, energy and resources that EQUIP will require can be better spent implementing the obvious.

Inadequate allocation of funds:

- Higher education in India has been chronically underfunded — it spends less than most other BRICS countries on higher education.

- Other related ministries and departments such as Space, Scientific and Industrial Research, Skill Development and Entrepreneurship, Science and Technology, Health Research and Agricultural Research have been allocated only modest support.

- The Central government, responsible mostly for the top of the academic system, does not provide sufficient resources.

- Even the Institutions of Eminence scheme falls short of requirements and is dramatically behind similar programmes in China and several European countries.

- Funding for basic research, which is largely a Central government responsibility, lags behind peer countries.

- Apart from Tata Trusts, Infosys Foundation, and Pratiksha Trust, industry provides little support.

Other Challenges:

- A key goal of EQUIP and the NEP is that India must expand the percentage of young people enrolled in post-secondary education significantly.

- It is interesting to note that while the draft NEP aims at increasing the gross enrolment ratio to at least 50% by 2035, EQUIP targets doubling the gross enrolment ratio to 52% by 2024.

- At present, India's gross enrolment ratio is 25.8%, significantly behind China's 51% or much of Europe and North America, where 80% or more young people enrol in higher education.

- India's challenge is even greater because half of the population is under 25 years of age. The challenge is not only to enrol students, but to ensure that they can graduate.

- The challenge is not only to enrol students and improve graduation rates but also to ensure that they are provided with a reasonable standard of quality.

- It is universally recognised that much of Indian higher education is of relatively poor quality.

- There is too much bureaucracy at all levels, and in some places, political and other pressures are immense.

- Professors have little authority. At the same time, accountability for performance is generally lacking.

- Employers often complain that they cannot hire graduates without additional training.

Recommendations:

- India requires substantial additional resources for higher education to improve quality and build a small but important world class sector.

- Massive effort is needed at both State and Central levels — and the private sector must contribute as well.

- India needs:

  * Dramatically increased funding from diverse sources, and the NEP's recommendation for a new National Research Foundation is a welcome step in this direction;

  * Significantly increased access to post-secondary education, but with careful attention to both quality and affordability, and with better rates of degree completion;

  * Longitudinal studies on student outcomes;

  * To develop "world class" research-intensive universities, so that it can compete for the best brains, produce top research, and be fully engaged in the global knowledge economy;

  * To ensure that the private higher education sector works for the public good

  * To develop a differentiated and integrated higher education system, with institutions serving manifold societal and academic needs;

  * Reforms in the governance of college and universities to permit autonomy and innovation at the institutional level; and

  * Better coordination between the University Grants Commission and ministries and departments involved in higher education, skill development, and research

- The structure and governance of the higher education system needs major reform.

- India needs a differentiated academic system — institutions with different missions to serve a range of individual and societal needs.

- Some "world class" research-intensive universities are needed. Colleges and universities that focus on quality teaching and serve large numbers of students are crucial. Distance education enters the mix as well.

- The draft NEP's recommendations for a differentiated system of research universities, teaching universities, and colleges are in tune with this. However, the ways suggested to achieve these objectives are impractical.

- The private sector is a key part of the equation. India has the largest number of students in private higher education in the world. But much of private higher education is of poor quality and commercially oriented.

Conclusion:

The latest draft NEP and EQUIP have reiterated the importance of some of these points. The needs are clear and have been articulated by earlier commissions and committees. The solutions are largely obvious as well. Action is the need of the hour.

DISASTER MANAGEMENT

1. Europe Heatwave

- The heatwave in Europe is a result of warm air masses from Africa
- Europe has been in the grip of record-breaking heatwaves, with wildfires burning tracts of land in France and Spain and scorching temperatures across the continent killing at least seven people.
- The heatwave in Europe follows extreme heat episodes in India, Pakistan, parts of the Middle East and Australia

Some facts

- In Europe, because people are not used to extremely high temperatures, many buildings don't have air-conditioning.
- In Germany, only 2% of homes are air-conditioned
- Also, with 72% of the European Union's population living in urban areas, a heatwave traps them in heat islands as steel, concrete, and asphalt structures absorb heat

What is a heatwave?

- Classifying a heat wave varies from country to country, because what is seen as extremely hot in one place may seem within normal range in another.
- In guidelines published in 2016, the World Meteorological Organization (WMO) listed several factors to be considered while analyzing an extreme weather event such as a heatwave.
- These include defining a specific threshold for variables such as temperature to be considered extreme, as well as a human perspective of extremes.

Impact on the world

- United Nations said Rising heat due to climate change could lead to the loss of 80 million jobs by 2030, with poor countries worst-hit, the
- The U.N. International Labour Organisation (ILO) said people would be unable to work due to the health risks posed by higher temperatures.
  - * If global temperatures rise as predicted, the construction industry will account for about 19% of lost working hours, with the poorest countries in Southeast Asia and west Africa worst hit, the ILO added.
- The World Health Organisation has said heat stress linked to climate change is likely to cause 38,000 extra deaths a year worldwide between 2030 and 2050.

India

The report released by the International Labour Organisation 'Working on a warmer planet: The impact of heat stress on labour productivity and decent work' anticipates an increase in "heat stress" resulting from global warming.

The report defines heat stress as heat in excess of what the body can tolerate without suffering physiological impairment.

- It generally occurs at temperatures above 35℃, in high humidity.
- Excess heat during work is an occupational health risk and restricts workers' physical functions and capabilities, work capacity and thus, productivity.

Stats

- India, which lost 4.3% of working hours in 1995 because of heat stress, is projected to lose 5.8% of its working hours in 2030, which corresponds to 34 million jobs.
- The report projects losses in working hours as 9.04% in agriculture (in shade), 5.29% in manufacturing, 9.04% in construction, and 1.48% in services.

2. Mumbai marooned

Introduction

- Mumbai has been witnessing heavy downpours with decadal high rainfall of 375.22-mm rainfall which has caused widespread flooding, loss of lives
  - * A single day of rain has killed 22 people in a wall collapse in north Mumbai
- Each year, the floods are growing in intensity. Each year, the rain events get more variable and extreme due to changes in climate.
  - * Each year, economic damage have increased and development gains are lost in one season of flood

Issues

- The water from the massive city areas usually enter into the lakes, which are interconnected.
  - * But over time, we have forgotten the art of drainage. We only see land for buildings, not for water. The attitude is it will rain for only a few days, so why "waste" land to manage that water.
  - * Now when it rains heavily—and with greater frequency and intensity because of climate change—the water has nowhere to go. Flood and devastation are inevitable.

- Comptroller and Auditor General identified prolonged delays in the upgrading of storm water drain infrastructure in Mumbai.

  * CAG has also pointed out at delay in work like nullah cleaning and widening.

- 2005 as Mumbai witnessed heavy showers, inundation and surge in water, the consensus was for the flood-carrying capacity of the Mithi River in the city to be increased. But the choked and polluted river was again overflowing this year.

  * CAG also slams the BMC for the delay in work of widening of Poisar River pointing out that only 4 kms out of the 7 kms of widening was completed.

- The Maharashtra government should have regarded the 94 cm of rain that paralysed Mumbai in one day 14 years ago as the baseline disaster to prepare for.

  * That it could not manage 37 cm in 24 hours, that too after incurring a massive expenditure on management projects, shows a lack of resolve among political leaders, rampant inefficiency and lack of integrity in the administrative machinery.

- On the one hand, we are mismanaging our water resources, thus, intensifying floods and droughts. On the other hand, climate change is increasing the frequency of extreme weather events, making the country even more vulnerable.

Way forward

- Indians know that the monsoon is their real finance minister.

- Clearly, the opportunity is to make sure that every drop of rain is harvested and used in the prolonged dry season.

- But this rain will come in the form of more ferocious events. We must prepare for that. Holding and channelising rain must become the nation's mission. It is our only way to the future.

- Managing them calls for a new approach that is ecological, and makes restoration of existing urban wetlands and creation of reservoirs and water channels a high priority.

- This means every water body, every channel and every catchment has to be safeguarded. These are the temples of modern India. Built to worship rain.

- State governments should give it priority and address it by making urban planning people-centric. A strong framework is needed to manage water

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4. Ulhas River

- It is a west flowing river in the state of Maharashtra

- The Ulhas River originates in a valley north of the Rajmachi hills formed by mountain streams

- It receives most of its water from the South-West monsoon during the months of June to October

- The Ulhas River is used to supply drinking water to the cities of Badlapur and Navi Mumbai, Kalyan Dombivali

Context
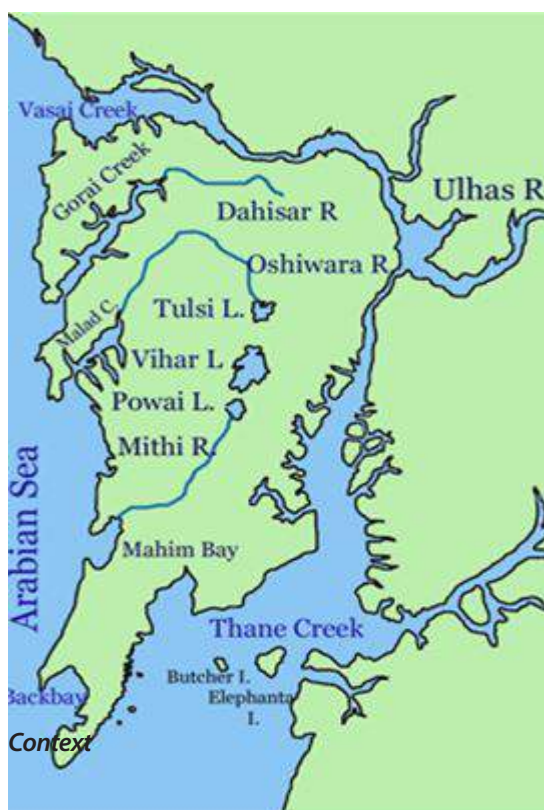
- The townships of Kalyan, Ulhasnagar, Murbad and Ambarnath received over 200 mm rain for 24 hours

Details

- Murbad, which includes rural areas, received 332 mm on average, within 24 hours

  * Ulhasnagar received 296 mm and Ambarnath received 280.10 mm.

  * Bhiwandi and Shahapur received 185 mm and 195 mm of rain, respectively.

- If a Mithi river in spate caused much of the havoc in 2005, when a cloudburst led to 944 mm of rain in Mumbai within a span of 24 hours, likewise, the overflowing Ulhas river is responsible for parts of Ulhasnagar being severely inundated

Pollution in Ullas

- The Ulhas River is one of the more polluted rivers in the Mumbai Metropolitan Region and is the subject of various petitions pertaining to industrial effluents

  * As the river gets closer to Mumbai, its colour changes, reflecting the growing human and industrial activity around it.

  * Near Karjat, it turns green with drain pipes releasing untreated sewage into it and people washing clothes on its banks.

- There are years of neglect and pollution which has led to the water pathways being clogged, be it natural or man-made.

- There is nowhere the water could go and that is why it's overflowing and reaching houses

- People cast their waste into the drains, directly choking them up inspite of authorities cleaning them

Are polluted rivers the only cause for these regions flooding?

- Multiple dams are constructed on the west-flowing rivers, the densification of these areas alongside the construction of more dams in the region to slake an ever-growing thirst of the Mumbai region makes these outback municipalities more prone to flooding.

  * The population of the 'Rest of Mumbai Metropolitan Region (MMR) ', i.e, excluding Mumbai, has grown from 18 lakh in 1971 to 106 lakh in the 2011 census.

  * The decadal growth rate of population for the city of Mumbai between 2001 and 2011 was recorded at 4 per cent while for the rest of the MMR, it was nearly 55 per cent.

- Some of these rivers are encroached upon and in poor condition owing to industrial and municipal waste

Conclusion

- This multifold growth of population has not been met with commensurate growth in municipal amenities — a 2015 survey by the Mumbai Metropolitan Region Development Authority (MMRDA) found only 59 per cent of the waste water treated, none of the urban local bodies matched the service benchmarks set for collection of the waste water.

- An overhaul of municipal amenities in these regions, planned in a holistic way that takes into account the likely floodwaters of the new reservoirs and dams being constructed in the region, is essential for flood-proofing this region.

5. Why Assam is prone to floods and what's the solution?

Stats

- Assam is in the grip of yet another flood, with 57 lakh people affected across all 33 districts, and 36 people killed besides hundreds of animals.

- This is the first wave of floods this monsoon, and flood control experts expect at least two more.

Why are floods so destructive in Assam?

- Apart from incessant rainfall during the monsoon, there are many contributory factors, natural and man-made.

- At the crux is the very nature of the river Brahmaputra —dynamic and unstable.

- Its 580,000 sq km basin spreads over four countries: China, India, Bangladesh and Bhutan, with diverse environments.

- The Brahmaputra features among the world's top five rivers in terms of discharge as well as the sediment it brings.

- At 19,830 cubic meters per second (cumec), it ranks fourth in discharge at the mouth, behind only the Amazon (99,150 cumec), the Congo (39,660 cumec) and the Yangtze (21,800 cumec)

- In terms of sediment yield, two spots along the Brahmaputa's course were at second and third places in 2008, behind the Yellow River whose annual sediment yield is 1,403 tonnes per sq km.

    * The Brahmaputra's annual sediment yield was 1,128 tonnes per sq km at Bahadurabad of Bangladesh, and 804 tonnes per sq km at Pandu of Guwahati.

How do these characteristics of the river relate to flooding?

- The vast amount of sediment comes from Tibet, where the river originates

    * That region is cold, arid and lacks plantation. Glaciers melt, soil erodes and all of it results in a highly sedimented river

- By the time the river enters Assam — a state comprising primarily floodplains surrounded by hills on all sides — it deposits vast amounts of this silt, leading to erosion and floods.

- As the river comes from a high slope to a flat plain, its velocity decreases suddenly and this results in the river unloading the sediment

- The river's channels prove inadequate amid this siltation, leading to floods.

- Again, because of the earthquake-prone nature of the region, the river has not been able to acquire a stable character. Following the devastating earthquake of 1950, the level of the Brahmaputra rose by two metres in Dibrugarh area in eastern Assam.

Manmade Causes

- Besides these natural factors are the man-made ones — habitation, deforestation, population growth in catchment areas (including in China) — which lead to higher sedimentation.

    * For example, the sediment deposition itself creates temporary sandbars or river islands.

- It is common for people to settle in such places, which restricts the space the river has to flow. When rainfall is heavy, it combines with all these factors and leads to destructive floods. This happens very frequently.

How bad is the current flood compared to previous ones?

- While floods are a regular annual feature in Assam, some years witness more destruction than others. In terms of impact on human lives, the floods of 1988, 1998 and 2004 were the worst; the 2004 floods alone affected 12.4 million people and claimed 251 lives.

- The current wave of floods has affected 57 lakh people and claimed 36 lives so far.

Has the government tried to address the factors that cause floods?

- In its master plan on the river in 1982, the Brahmaputra Board had suggested that dams and reservoirs be built to mitigate floods.

    * The idea of dams, however, has traditionally been a double-edged sword. While one of their objectives is to regulate the release of flood waters, the release when it comes can sometimes be beyond the capacity of the channels downstream.

    * In the Brahmaputra basin, locals and environmentalists protested against dam-building plans on grounds of displacement and destruction of ecology, preventing the plans from moving forward.

- As such, the government has been using only one approach towards floods: building embankments on the river.

- The government also considered dredging, basically digging up the riverbed and making the river "deeper". However, experts have strongly advised against this simply because the Brahmaputra sediment yield is among the highest in the world.

    * Experts believe that even if we take out all the silt this year, more silt will be deposited the following year, making the very expensive effort futile

What should be done going forward?

- An "Integrated Basin Management" system should ideally bring in all the basin-sharing countries on board.

    * Addressing the issues only in Assam when the flood strikes isn't the solution — one needs the countries to come to an understanding about taking measures in the catchment areas

    * For that, interstate relationships, political cooperation and the role of the government are important.

- Another option is "Flood-Plain" Zoning, which is done in US.

    * Depending on the vulnerability of the area, one can divide the area into categories, and accordingly ban certain activities on it: like farming, building a house etc

MISCELLANEOUS

1. **Ambedkar Hastshilp Vikas Yojana**

    Context:

    - The Ambedkar Hastshilp Vikas Yojana (AHVY) was launched by the GOI in 2001 – 02 to mobilize the artisans into Self Help Groups thrift and credit, training of Self Help Groups on various aspects of forming and running the community business enterprises for self-sustainability of artisans.

    Features:

    - Design & Technology Upgradation

    - Human Resource Development

    - Direct Benefit to Artisans

    - Infrastructure and Technology Support

    - Research and Development

    - Marketing Support & Services

2. **Khelo India Programme**

    Context:

    - The Khelo India Scheme, with twelve verticals, is being implemented across the country from the year 2017-18 onwards.

    About the program

    - The Talent Search and Development vertical of Khelo India scheme provides for grant of financial assistance of Rs.5.00 lakh per annum for a period of 8 years for selected sportspersons.

    - State/Union Territory (UT)-wise allocation or release of funds is not made under this vertical, which is implemented centrally by Sports Authority of India (SAI).

    - "Sports" being a State subject the responsibility of development Sports, including among girls in schools and colleges across the country rests with the State / Union Territory (UT) Governments.

    - Sports Authority of India (SAI) also implements the Schemes of National Sports Talent Contest (NSTC) and Extension Centres of SAI Training Centres (STC)/ Special Area Games (SAG) Centres with the aim of promoting sports.

    - These schemes are applicable for all, including girls schools and colleges.

3. **Red Mud**

    - Red Mud is a solid waste generated during the aluminium production process.

    - It is a bauxite residue.

    - This is an environmental concern due to presence of impurities such as caustic soda and others minerals.

    - Global generation of red mud is more than 150 million tons and there exists a global inventory of more than 3 billion tons.

    - Red mud generation in India is around 9 million tons per year.

    Context:

    - Ministry of mines organized a workshop on Effective utilization of Red Mud

    - A workshop titled 'Waste to Wealth' was organised by the Ministry of Mines in Delhi regarding Red Mud.

4. **'Study in India' programme**

    Background

    - To facilitate Internationalization of Higher Education in India, a Programme viz. 'Study in India' is under implementation.

    - The programme focuses on attracting International students from select 30 plus countries across South-East Asia, Middle East and Africa.

    - The programme envisages participation of select reputed Indian institutes/universities by way of offering seats for the International students at affordable rates, along with fee waivers to meritorious foreign students ranging from 100% to 25%.

- A centralized admission web-portal acts as a single window for the admission of foreign students.

- Moreover, the programme also envisages setting up of call centers for support; algorithm for allocation of seats to the meritorious candidates; selection of top 100 partner institutions on the basis of NAAC grading and NIRF ranking.

Objectives of the Program

- This will improve the soft power of India with focus on the neighboring countries and use it as a tool in diplomacy;

- To rapidly increase the inflow of inbound International Students in India through systematic marketing

- To reduce the export-import imbalance in the number of international students

- Growth in India's global market share of International students; and increase in global ranking of India etc.

PRACTICE QUESTIONS

1. **Betla National Park is located in:**

   A. Odisha

   B. Jharkhand

   C. West Bengal

   D. Bihar

2. **Consider the following statements:**

   1. Cirrostratus clouds are High altitude clouds.

   2. They are very thin and are made of ice crystals.

   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

3. **Consider the following statements:**

   1. Wind Instruments are known as Sushira Vadyas.

   2. Oordhwaka is an example of Sushira Vadya.

   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

4. **Consider the following statements:**

   1. Kaziranga National Park in Assam is a World Heritage Site.

   2. It hosts two thirds of the world's great one horned Rhinoceroses.

   3. It is also a Tiger Reserve.

   Which of the given statement/s is/are correct?

   A. 1 only

   B. 1 and 2 only

   C. 2 only

   D. 1, 2 and 3

5. **Consider the following statements:**

   1. Titan is the Second largest natural satellite in the solar system.

   2. Titan is larger than Earth's Moon.

   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

6. **Which of the following is not a member of the G 20?**

   A. Brazil

   B. India

   C. Turkey

   D. Afghanistan

7. **Consider the following statements:**

   1. Asset Reconstruction refers to conversion of non-performing assets into performing assets.

   2. Asset Reconstructions are regulated under the Securitisation and Reconstruction of Financial Assets and Enforcement of Securities Interest Act, 2002.

   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

8. **Brihat Samhita was written by**

   A. Kalidasa

   B. Vishnu Sharma

   C. Bana

   D. Varaha Mihira

9. **Consider the following statements**

   1. In 'Slash and Burn' agriculture, farmers clear a patch of land and produce cereals and other food crops to sustain their family. When the soil fertility decreases, the farmers shift and clear a fresh patch of land for cultivation.

   2. The 'slash and burn' agriculture is known as 'Milpa' in Mexico and Central America.

   Which among the above statements is/are correct?

   A. 1 only

   B. Both 1 and 2

   C. 2 only

   D. Neither 1 nor 2

10. **Consider the following statements**

    1. The leader of the opposition in the houses of Indian parliament is a statutory post.

    2. This post is defined in the Salaries and Allowances of Leaders of Opposition in Parliament Act, 1977 as simply the leader of the numerically biggest party in opposition to the government and recognised as such by the speaker/chairman.

    Which among the above statements is/are correct?

    A. 1 only

    B. Both 1 and 2

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C. 2 only

D. Neither 1 nor 2

11. Consider the following statements:

1. A Money Bill may only be introduced in the Lok Sabha, on the recommendation of the President.

2. It must be passed in the Lok Sabha by a simple majority of all members present and voting. Following this, it may be sent to the Rajya Sabha for its recommendations, which Lok Sabha may reject if it chooses to.

3. If such recommendations are not given by the Rajya Sabha within 14 days, it will deemed to be passed by Parliament.

Which among the above statements is/are correct?

A. 1 and 2 only

B. All 1, 2 and 3

C. 2 and 3 only

D. 1 and 3 only

12. Consider the following statements regarding the Central Education Institutions (Reservations in Teachers' Cadre) Ordinance, 2019:

1. The Ordinance provides for reservation of teaching positions in central educational institutions for persons belonging to the Scheduled Castes, Scheduled Tribes, and the socially and educationally backward classes.

2. The Ordinance will apply to 'central educational institutions' which include universities set up by Acts of Parliament, institutions deemed to be a university, institutions of national importance, and institutions receiving aid from the central government.

3. It excludes certain institutions of excellence, research institutions, and institutions of national and strategic importance which have been specified in the Schedule to the Ordinance. It also excludes minority education institutions.

Which among the above statements is/are correct?

A. 1 and 2 only

B. All 1, 2 and 3

C. 2 and 3 only

D. 1 and 3 only

13. Consider the following statements:

1. The MSP is the rate at which the Centre procures crops from farmers.

2. The Cabinet Committee of Economic Affairs announces MSP.

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

14. Consider the following statements:

1. Mohiniyattam is one of the classical dances of India.

2. It is performed only by females.

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

15. Which of the following National Parks is not located in Odisha?

A. Simlipal National Park

B. Bhitarkanika National Park

C. Kanger Ghati National Park

D. Panna National Park

16. Consider the following statements:

1. PM KISAN is a Central Sector scheme.

2. Under the scheme, Income support of Rs.60000/- per year in three equal instalments will be provided to small and marginal farmer families having combined land holding/ownership of upto 2 hectares.

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

17. Consider the following statements:

1. Chhau is a classical dance form from eastern India

2. It is included in UNESCO's intangible cultural heritage list.

3. Chhau Mask of Purulia has been granted the Geographical Indication tag

Which of the given statement/s is/are correct?

A. 1 only

B. 1 and 2 only

C. 2 only

D. 2 and 3 only

18. Consider the following statements:

1. Gomira Mukh Nach is from West Bengal.

2. The dancers performing Gomira Mukh Nach are all male.

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

19. Consider the following statements:

1. Salween River Passes through China, Myanmar and Thailand.

2. The river empties into the Gulf of Martaban.

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

20. Ishwar Chandra Vidyasagar fought for/against which of the following social cause?

A. Untouchability

B. Abolition of Sati

C. Education of Women

D. Widow Remarriage

21. Consider the following statements with respect to Global Hunger Index (GHI):

1. GHI is published by World Health Organisation

2. The key indicators for ranking are undernourishment, child stunting, child wasting and child mortality

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

22. World Investment Report is published by:

A. World Bank

B. World Trade Organisation

C. UN Conference on Trade and Development (UNCTAD)

D. World Economic Forum

23. Consider the following statements:

1. Investor Education and Protection Fund Authority is a constitutional body

2. It is set up under the Ministry of Corporate Affairs

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

24. Consider the following statements:

1. e-SAMVAD portal is an initiative of the Ministry of Women and Child Development

2. It provides a platform for NGOs and Civil Societies to interact with the Ministry

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

25. Consider the following statements:

1. Bhutan is a carbon negative country.

2. 'Druk Yul', which is the local name for Bhutan, means "Land of the Thunder Dragon."

3. Bhutan is the only country in the world to officially measure national happiness. The index is known as GNH (Gross National Happiness).

Which among the above statements is/are correct?

A. 1 and 2 Only

B. 2 and 3 Only

C. All 1, 2 and 3

D. 1 and 3 Only

26. Consider the following statements:

1. Plasmodium falciparum is a protozoan parasite that causes malaria.

2. The World Malaria Report is published by the International Committee of the Red Cross (ICRC).

Which among the above statements is/are correct?

A. 1 Only

B. 2 Only

C. Both 1 and 2

D. Neither 1 nor 2

27. Consider the following statements:

1. Planets that orbit stars other than our Sun are called exoplanets.

2. The 'transit method' of detecting exoplanets looks for dips in the visible light of stars, and requires that planets cross in front of stars along our line of sight to them.

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

28. Consider the following statements:

1. Persistent organic pollutants (POPs) are organic compounds that are resistant to environmental degradation.

2. POPs bio-magnify throughout the food chain and bio-accumulate in organisms. The highest concentrations of POPs are thus found in organisms at the top of the food chain.

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

29. Consider the following statements:

1. The Election Commission of India is a constitutional body

2. It acts as a court for arbitration of disputes related to granting of recognition to political parties.

3. It consists of members having a tenure of five years.

Which of the given statement/s is/are correct?

A. 1 and 2 only

B. 2 only

C. 3 only

D. 1, 2 and 3

30. The Constitution of India empowers the Supreme Court of India to adjudicate disputes between the Centre and the States through:

A. Original Jurisdiction

B. Writ Jurisdiction

C. Advisory Jurisdiction

D. Appellate Jurisdiction

31. Consider the following statements:

1. Vedanthangal Bird Sanctuary is the oldest bird sanctuary in India

2. It is located in Kerala

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

32. "Apiculture" is the rearing of

A. Fish

B. Silk Worms

C. Prawns

D. Honey bees

33. Which of the following is/are included in the UNESCO Natural World Heritage list?

1. Great Himalayan National Park

2. Western Ghats

3. Manas Wildlife Sanctuary

A. 1 only

B. 1 and 2 only

C. 2 and 3 only

D. 1, 2 and 3

34. Chief Justice and other Judges of the Supreme Court are appointed by:

A. Prime Minister

B. President

C. Vice – President

D. Law Minister

35. Which of the following countries divided by Radcliffe Line?

A. India and Nepal

B. India and Bangladesh

C. India and China

D. India and Pakistan

36. Which of the following are not correctly matched?

1. Lushai Hills : Assam

2. Mikir Hills: Mizoram

3. Abor Hills: Meghalaya

Choose the correct answer:

A. 1 only

B. 1 and 2 only

C. 2 and 3 only

D. 1, 2 and 3

37. Consider the following statements:

1. International Court of Justice is the principal judicial organ of the United Nations.

2. The court is composed of 15 Judges.

3. The term of office of ICJ is 9 years.

Which of the given statement/s is/are correct?

A. 1 only

B. 1 and 2 only

C. 1 and 3 only

D. 1, 2 and 3

38. Consider the following statements:

1. Basel Convention is related to Trans-boundary Movements of Hazardous Wastes and their Disposal.

2. The convention does not cover radioactive wastes.

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

39. "Agenda 21" is:

A. An agreement between 21 developing countries of the world on climate change.

B. A free trade agreement between 21 developing countries of the world.

C. A voluntarily implemented action plan of the United Nations with regard to sustainable development.

D. A plan to conserve the wetlands in India.

40. Consider the following statements:

1. Gaj Yatra is a campaign to protect elephants.

2. It is a significant part of the Rath Yatra celebrations.

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

41. Consider the following statements with respect to Alfred Wegener's Continental Drift theory:

1. According to the theory, all the continents were one single continental mass called Pangaea.

2. Pangaea first split into 2 big continental masses known as Gondwanaland and Laurasia.

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

42. Consider the following statements:

1. National Water Informatics Centre (NWIC) a repository of nation-wide water resources data.

2. It is a component of the National Hydrology Project.

3. It works under the Ministry of Water Resources, River Development and Ganga Rejuvenation.

Which of the given statement/s is/.are correct?

A. 1 only

B. 1 and 3 only

C. 2 and 3 only

D. 1, 2 and 3

43. Consider the following statements:

1. National Disaster Management Authority is headed by the Home Minister.

2. It is a statutory body.

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

44. Consider the following statements:

1. Project Tiger was initiated during Prime Minister Indira Gandhi's tenure in 1973.

2. The objective of the Project Tigerwas to save theRoyal Bengal Tigers from getting extinct.

3. Project Tiger was first launched in Kanha Tiger Reserve.

Which of the given statement/s is/are correct?

A. 1 and 2 only

B. 1 and 3 only

C. 2 and 3 only

D. 1, 2 and 3

45. Vaitarna hydro power plant is located in

A. Maharashtra

B. Karnataka

C. Tamil Nadu

D. Himachal Pradesh

46. Consider the following statements:

1. The Protection of Children from Sexual Offences (POCSO) Act is a legislation to effectively address sexual abuse and sexual exploitation of children.

2. Children according to the Act are individuals aged below 14 years.

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

47. Consider the following statements with respect to Third Anglo Maratha War:

1. The Maratha chiefs Peshwa Bajirao II, Malharrao Holkar and Mudhoji II Bhonsle forged a united front against the English.

2. This war led to the end of the Maratha Empire. All the Maratha powers surrendered to the British.

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

48. Consider the following statements:

1. Inter Creditor Agreement (ICA) is an agreement among banks that have dues from a borrower in stress.

2. The pact authorizes the lead bank (with the highest exposure) to formulate a resolution plan that could be executed in a time-bound manner.

3. Inter Creditor Agreement is a part of Project Sashakt.

Which of the given statement/s is/are correct?

A. 1 only

B. 1 and 2 only

C. 1 and 3 only

D. 1, 2 and 3

49. Nangarhar province, recently seen in news, is in which country?

  A. Iran

  B. Afghanistan

  C. Iraq

  D. Yemen

50. Consider the following statements regarding Special 301 report:

1. It is a United States federal law that imposes sanctions on Iran, North Korea, and Russia.

2. Sanctions were imposed on Turkey recently under this report.

Which of the above statements is/are incorrect?

  A. 1 only

  B. 2 only

  C. Both 1 and 2

  D. Neither 1 nor 2

51. With reference to World Bank, which of the following statements is/are correct?

1. World Bank generally refers to International Bank for Reconstruction and Development and International Development Agency.

2. International Finance Corporation is known as the private arm of the WB.

  A. 1 only

  B. 2 only

  C. Both 1 and 2

  D. Neither 1 nor 2

52. The Quadrilateral Coordination Group does not include which of the following countries?

  A. USA

  B. China

  C. Pakistan

  D. India

53. Consider the following statements:

1. Chandrayaan-2, India's second lunar mission, has three modules namely Orbiter, Lander (Vikram) & Rover (Pragyan).

2. The Orbiter and Lander modules will be interfaced mechanically and stacked together as an integrated module and accommodated inside the GSLV MK-III launch vehicle.

3. The Rover is housed inside the Lander.

Which among the above statements is/are correct?

  A. 1 and 2 Only

  B. 2 and 3 Only

  C. All 1, 2 and 3

  D. 1 and 3 Only

54. Consider the following statements:

1. Krishnadeva Raya is credited with building some fine temples and adding impressive gopurams to many important south Indian temples. He also founded a suburban township near Vijayanagara called Nagalapuram after his mother.

2. Vijayanagara architecture is also known for its adoption of elements of Indo Islamic Architecture in secular buildings like the Queen's Bath and the Elephant Stables, representing a highly evolved multi-religious and multi-ethnic society.

Which among the above statements is/are correct?

  A. 1 Only

  B. 2 Only

  C. Both 1 and 2

  D. Neither 1 nor 2

55. Consider the following statements:

1. Black holes are volumes of space where gravity is extreme enough to prevent the escape of even the fastest moving particles. Not even light can break free, hence the name 'black' hole.

2. Stellar-mass black holes have been found scattered throughout the Milky Way and supermassive black holes containing millions to billions of times the mass of the Sun have been found inhabiting the Milky Way's center and the cores of most large galaxies.

Which among the above statements is/are correct?

  A. 1 Only

  B. 2 Only

  C. Both 1 and 2

  D. Neither 1 nor 2

56. Consider the following statements:

1. GSLV Mk III is a three-stage heavy lift launch vehicle developed by ISRO. The vehicle has two solid strap-ons, a core liquid booster and a cryogenic upper stage.

2. GSLV Mk III will be capable of placing the 4 tonne class satellites of the GSAT series into Geosynchronous Transfer Orbits.

Which of the above statements is/are incorrect?

  A. 1 Only

  B. 2 Only

  C. Both 1 and 2

  D. Neither 1 nor 2

57. 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 Centrally Sponsored 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

58. Attappadi Reserve Forest is located in:

A. Tamil Nadu

B. Kerala

C. Telangana

D. Andhra Pradesh

59. Consider the following statements:

1. Coral Polyps produce a limestone skeleton as they grow.

2. Coral genotypes can survive for thousands of years, possibly making them the longest-lived animals in the world

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

60. 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

61. Consider the following statements with respect to Radio-frequency identification:

1. RFID uses electromagnetic fields to automatically identify and track tags attached to objects.

2. RFID tags can be implanted in animals and people.

Which of the given statement/s is/are not correct?

A. 1 only

B. 2 only

C. Both 1 and 2

D. Neither 1 nor 2

62. Consider the following statements with respect to "Blue Flag Certification":

1. Blue Flag is a certification by the United Nations Environment Programme

2. It is a certification for beaches that that meet certain criteria of cleanliness and environmental propriety.

Which of the given statement/s is/are not correct?

A. 1 only

B. 2 only

C. Both 1 and 2

D. Neither 1 nor 2

63. Dalma Wildlife Sanctuary is in:

A. West Bengal

B. Jharkhand

C. Bihar

D. Assam

64. Consider the following statements with respect to Global Counterterrorism Forum (GCTF):

1. GCTF is an international apolitical, multilateral counter-terrorism platform.

2. India is not a member of GCTF.

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

65. Consider the following statements:

1. Advaita Vedanta is a non-dualistic school of Hinduism with its roots in the Vedas and Upanishads.

2. Swami Vivekananda spread Advaita Vedanta to the west.

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

66. In the IUCN Red List, Bengal Florican or Bengal Bustard is classified as:

A. Extinct

B. Near threatened

C. Vulnerable

D. Critically Endangered

67. Consider the following statements with respect to Sustainable Catchment Forest Management (SCATFORM) project:

1. Assam has launched the SCATFORM project.

2. The SCATFORM project aims to address issues such as forest cover loss, promotion of bamboo plantation.

A. 1 only

B. 2 only

C. Both 1 and 2

D. Neither 1 nor 2

68. Consider the following statements:

1. National Company Law Tribunal was constituted based on the recommendation of the Justice Eradi committee.

2. It is the adjudicating authority for insolvency resolution process of companies and limited liability partnerships under the Insolvency and Bankruptcy Code, 2016.

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

69. Consider the following statements:

1. The idea of the Preamble in the Constitution was taken from the UK.

2. It is explicitly proclaimed in the Preamble that India is a Secular state.

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

70. Consider the following statements with respect to Carter Doctrine:

1. It is a policy by Russia.

2. It is a policy to use military force if necessary to defend the national interests in the Persian Gulf.

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

71. 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

72. Consider the following statements:

1. Chakmas are Hindu and Hajongs are Buddhist Refugees.

2. Chakmas' is close to Bengali-Assamese and Hajongs speak a Tibeto-Burman tongue written in Assamese.

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

73. Consider the following pairs:

1. Bihar: Kunwar Singh

2. Jhansi: Rani Laxmibai

3. Bareilly: Khan Bahadur

Which of the pairs given above are correctly matched?

A. 1 only

B. 2 only

C. 1 and 2 only

D. 1, 2 and 3

74. Consider the following statements:

1. Raja Rammohan Roy is known as the "Father of Indian Renaissance".

2. He was the founder of Brahmo Sabha.

Which of the pairs given above are correctly matched:

A. 1 only

B. 2 only

C. 1 and 2 only

D. 1, 2 and 3

75. Ghagra and Gomti are the tributaries of:

A. Yamuna

B. Ganga

C. Brahmaputra

D. Indus

76. Consider the following statements:

1. A private member can introduce a money bill.

2. A money bill can be introduced only on prior recommendations of the President.

3. President can withhold assent to money bill but cannot return it for reconsideration of the Lok Sabha.

Which of the given statement/s is/are correct?

A. 1 only

B. 1 and 2 only

C. 2 only

D. 2 and 3 only

77. Consider the following statements:

1. The Strait of Hormuz is a strait between the Persian Gulf and the Gulf of Oman.

2. It is one of the world's most strategically important choke points.

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

78. **Consider the following statements with respect to RTI Act:**

1. According to the Act, the salaries, allowances and other terms of an Information Commissioner are equivalent to that of the Election Commissioner.

2. Whenever there is a conflict between the provisions of the RTI Act and Official Secrets Act, the former shall prevail.

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

79. **Which of the following is/are included in the List of Ramsar sites in India:**

1. Bhoj Wetland

2. Chilika Lake

3. Ashtamudi Lake

Choose the correct option:

A. 1 only

B. 1 and 2 only

C. 2 only

D. 1, 2 and 3

80. **Arrange the following in the order of their occurrence on a globe from north to south:**

1. 1. Strait of Hormuz

2. Strait of Malacca

3. Strait of Gibraltar

4. Sunda Strait

Which of the given statement/s is/are correct?

A. 4-3-2-1

B. 3-1-2-4

C. 3-2-1-4

D. 3-4-2-1

81. **With reference to mode of dismissal, consider the following pairs:**

Constitutional Body	Type of Decision
1. Removal of President	Executive decision
2. Removal of SC judge	Legislative decision

3. Removal of UPSC chairperson Executive decision

Which of the pair(s) given above are correctly matched?

A. 1 only

B. 1 and 2 only

C. 3 only

D. 1, 2 and 3

82. **Which of the following terms is not associated with black holes?**

A. Gravitational Lensing

B. Chirped pulse amplification

C. Event horizon

D. Schwarzschild Radius

83. **Consider the following statements about IUCN Red List:**

1. Compilation of the species information is strictly restricted to government sources which are shared as per the regulations of global commons.

2. It not only assesses new species, but reassesses existing species to check their status for any improvements.

Choose the correct option:

A. 1 only

B. 2 only

C. Both 1 and 2

D. Neither 1 nor 2

84. **Consider the following statements with respect to Traditional Knowledge Digital Library (TKDL):**

1. It was established by the Ministry of Ayush in collaboration with Council for Scientific & Industrial Research (CSIR).

2. The TKDL contains documentation of publicly available traditional knowledge that relates to Ayurveda, Unani, Siddha and Yoga in digitized format.

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

85. **Consider the following statements:**

1. A hope spot is an area of the desert that needs special protection because of its wildlife and significant habitats.

2. Two places in India have made it to the list of global hope spots.

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

86. Consider the following statements:

1. Serious Fraud Investigation Office is a multi-disciplinary organization for detecting and prosecuting white-collar crimes/frauds.

2. It functions under the Ministry of Corporate Affairs.

3. It is a statutory body.

Which of the given statement/s is/are incorrect?

A. 1 only

B. 3 only

C. 1 and 2 only

D. None of the above

87. Consider the following statements:

1. International Finance Corporation (IFC) is not a member of the World Bank Group.

2. The IFC is owned and governed by its member countries.

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

88. Consider the following statements:

1. Wood's Despatch is known as Magna Carta of Indian Education.

2. It laid the foundation for the establishment of Universities in Kolkata, Mumbai and Chennai.

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

89. Consider the following statements:

1. African Development Bank is a multilateral financing agency.

2. All the African countries are its members.

3. India is also a member of the bank.

Which of the given statement/s is/are correct?

A. 1 only

B. 1 and 2 only

C. 2 only

D. 1, 2 and 3

90. Corruption of Perceptions Index (CPI) is published by:

A. World Bank

B. International Monetary Fund

C. Transparency International

D. World Trade Organisation

91. Consider the following statements:

1. Sangai festival is celebrated in the State of Manipur.

2. The brow-antlered deer "Sangai" is found only in Manipur.

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

92. Consider the following statements with reference to FAME 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.

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

93. World Economic Outlook (WEO) is published by

A. International Monetary Fund

B. World Trade Organisation

C. World Bank

D. Organisation for Economic Co-operation and Development

94. Consider the following statements:

1. Golden Crescent is the region spanning across Myanmar, Laos, and Thailand.

2. It is an area of illicit opium production.

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

95. Consider the following statements

1. (GROWTH)-India telescope is located in Ladakh.

2. It is India's first robotic telescope.

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

96. Consider the following statements:

1. Khelo India programme is an initiative of the Ministry of Sports and Youth Affairs.

2. Promotion of sports amongst people with disabilities is a component of the Khelo India programme.

3. It is a centrally sponsored scheme.

Which of the given statement/s is/are correct?

A. 1 only

B. 2 only

C. 1 and 2 only

D. 1 and 3 only

97. Consider the following statements:

1. Gharials inhabit both freshwater and saltwater habitats.

2. Gharial is the only crocodilian species native to India.

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

98. Consider the following statements::

1. Ibadat Khana was built by Akbar at his palace in Fatehpur Sikri.

2. Ibadat Khana was an exclusive place for sacrifices.

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

99. Consider the following statements:

1. Mudiyettu is a traditional ritual theatre and folk dance drama from Tamil Nadu.

2. It is included in UNESCO's intangible heritages list.

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

100. Consider the following statements:

1. Orang National Park is located on the North Bank of Brahmaputra River.

2. It is home to great Indian one-horned rhinoceros.

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

101. Consider the following statements:

1. Measles is a highly contagious bacterial disease.

2. The MMR vaccine protects against three diseases measles, mumps and rubella.

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

102. Consider the following statements:

1. Eravikulam national park is located in Kerala.

2. It is a UNESCO World Heritage Site.

3. Neelakurinji flower that blossoms once in 12 years if found abundantly at Eravikulam National Park.

Which of the given statement/s is/are correct?

A. 1 Only

B. 1 and 2 only

C. 2 and 3 only

D. 1, 2 and 3

103. Consider the following statements:

1. Helena Blavatsky started the Home Rule Movement in India.

2. Tilak's Home Rule movement was confined to Maharashtra and Karnataka.

3. All India Home Rule League later changed its name to Swarajya Sabha.

Which of the given statement/s is/are correct?

A. 1 only

B. 1 and 2 only

C. 2 and 3 only

D. 1, 2 and 3

104. Consider the following statements:

1. The point when the moon is closest to the earth is called Perigee.

2. The point when it is farthest from it is called Apogee.

3. When a full moon occurs at its Apogee, it is called a Blue moon.

Which of the given statement/s is/are correct?

A. 1 and 2 only

B. 3 only

C. 1, 2 and 3

D. None of the above

105. Consider the following statements:

1. The Geneva Conventions comprise treaties, and protocols, that establish the standards of international law for humanitarian treatment in war.

2. India is a party to the 1949 Geneva Conventions.

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

106.   "Dracaena cambodiana" recently seen in news is

A. A type of superbug.

B. A dragon tree species that has been reported from India.

C. A newly found drug to combat wombat-killing disease

D. Most deadly bug responsible for destroying cotton produce

107.   Consider the following statements with respect to Wombats:

1. Wombats are Marsupials.

2. They are endemic to India.

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

108.   Consider the following statements:

1. World Tourism Organisation operates under the United Nations Framework.

2. It promotes tourism as a driver of economic growth, inclusive development andenvironmental sustainability

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

109.   Identify the statement which is not correct:

A. Peat can be an early stage in coal formation

B. Peat forms in bogs which are a type of wetland with a high alkaline content.

C. Partly-decayed organic material builds up and eventually forms peat.

D. Northern Europe have the most peat lands harvested for fuel use.

110.   Who is the author of 'The Buddha and His Dhamma', a treatise on Buddha's life and Buddhism?

A. Bhagat Singh

B. Periyar

C. B.R. Ambedkar

D. Jawaharlal Nehru

111.   Consider the following statements:

1. Samabhanga is one of The three primary dance positions in Odissi

2. Odissi is a dance form performed only by women.

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

112.   Consider the following statements:

1. PUNCH stands for Polarimeter to Unify the Corona and Heliosphere.

2. PUNCH Mission is focused on understanding the transition of particles from the Sun's outer corona to the solar wind that fills interplanetary space.

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

113.   Consider the following statements:

1. Uranus has nine major moons.

2. Titania is its biggest among the major moons.

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

114.   Which of the following is a judicial writ issued as a command to an inferior court or ordering a person to perform a public or statutory duty?

A. Mandamus

B. Certiorari

C. Habeas Corpus

D. Quo Warranto

115.   Consider the following statements:

1. Mariana Trench is the deepest part of the world's oceans.

2. It is located in the western Pacific Ocean.

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

116.   **Consider the following statements:**

1. Kandhamal Haldi, a type of turmeric produced by tribal farmers of Odisha.

2. It is the first product in India to receive a GI tag.

Which of the given statement/s is/are correct?

A. 1 Only

B. 2 Only

C. 1 and 2 only

D. Neither 1 nor 2

117.   **Which of the following are not matched correctly?**

A.   Sathyamangalam Tiger Reserve: Tamil Nadu

B.   Kaziranga National Park (KNP): Assam

C.   Periyar Tiger Reserve: Kerala

D.   Pench Tiger Reserve: Uttar Pradesh

118.   **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

119.   **Consider the following statements:**

1. Trade Record Analysis of Flora and Fauna in Commerce is a Non-Governmental Organisation.

2. It was founded as a strategic alliance of the World Wide Fund for Nature (WWF) and the International Union for the Conservation of Nature (IUCN).

3. Its mission is to ensure that trade in wild plants and animals is not a threat to the conservation of nature.

Which of the statement/s given is/are correct?

A. 1 Only

B. 1 and 2 only

C. 1 and 3 only

D. 1, 2 and 3

120.   **Consider the following statements:**

1. Vembanad Lake is a designated Ramsar site..

2. It is the largest fresh water lake in India.

3. Vembanad wetland has been identified for the National Wetlands Conservation Programme.

Which of the statement/s given is/are correct?

A. 1 and 2 only

B. 1 and 3 only

C. 2 and 3 only

D. 1, 2 and 3

121.   **Which of the following are the effects of over use of fertilizers?**

1. Imbalance in the nitrogen cycle.

2. Surface and Ground water pollution.

3. Climate change.

Choose the correct option:

A. 1 and 2 only

B. 1 and 3 only

C. 2 only

D. 1, 2 and 3

122.   **Consider the following statements:**

1. The Indian Medical Association is a founder member of the World Medical Association.

2. The Indian Medical Association is registered under the Companies Act of 1956.

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

123.   **Consider the following statements:**

1. Chenchu Tribes are listed as Particularly Vulnerable Tribal Groups.

2. They live in states of Andhra Pradesh, Telangana, Karnataka and Odisha.

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

ANSWER KEYS

1. Answer: B

Explanation:

The Betla National Park is located in Jharkhand. The North Koyal River and its tributaries flow through the northern portion of the park, producing grasslands.

2. Answer: C

Explanation:

Cirrostratus clouds are High altitude clouds. They are high, very thin, non-convective and are composed of ice-crystals. It is difficult to detect and is capable of forming halos around the Sun resulting in refraction of the sun's rays. They are high, very thin, non-convective and are composed of ice-crystals.

3. Answer: A

Explanation:

Sushira Vadyas are wind instruments. Sound is produced by blowing air into an hollow column. Flutes and reeds are examples of Sushira Vadyas. Oordhwaka is a percussion instrument i.e, Avanaddha Vadya.

4. Answer: D

Explanation:

Kaziranga National Park in Assam is a World Heritage Site. The sanctuary hosts two-thirds of the world's great one-horned rhinoceroses. Kaziranga is home to the highest density of tigers among protected areas in the world, and was declared a Tiger Reserve in 2006.

5. Answer: C

Explanation:

Titan is Saturn's largest moon. It is the second largest natural satellite in the solar system after Ganymede. It is larger than planet Mercury. It is the only moon known to have a dense atmosphere. itan is 50% larger than Earth's moon and 80% more massive

6. Answer: D

Explanation:

The members of the G20 are Argentina, Australia, Brazil, Canada, China, France, Germany, India, Indonesia, Italy, Japan, Republic of Korea, Mexico, Russia, Saudi Arabia, South Africa, Turkey, the United Kingdom, the United States and the European Union

7. Answer: C

Explanation:

An Asset Reconstruction Company is a specialized financial institution that buys the NPAs or bad assets from banks and financial institutions so that the latter can clean up their balance sheets. Asset Reconstruction refers to conversion of non-performing assets into performing assets. Asset Reconstructions are regulated under the Securitisation and Reconstruction of Financial Assets and Enforcement of Securities Interest Act, 2002.

8. Answer: D

Explanation:

Varahamihira lived in Ujjain (Madhya Pradesh). His most notable work was Brihat Samhita, an encyclopedic work on architecture, temples, planetary motions, eclipses, timekeeping, astrology, seasons, cloud formation, rainfall, agriculture, mathematics, gemology, perfumes and many other topics.

9. Answer: B

Explanation:

- In 'Slash and Burn' agriculture, farmers clear a patch of land and produce cereals and other food crops to sustain their family. When the soil fertility decreases, the farmers shift and clear a fresh patch of land for cultivation. This type of shifting allows nature to replenish the fertility of the soil through natural processes; land productivity in this type of agriculture is low as the farmer does not use fertilisers or other modern inputs.

- It is known by different names in different parts of the country.

- This type of farming is referred to as jhumming in north-eastern states like Assam, Meghalaya, Mizoram and Nagaland; Pamlou in Manipur, Dipa in Bastar district of Chhattishgarh, and in Andaman and Nicobar Islands.

- The 'slash and burn' agriculture is known as 'Milpa' in Mexico and Central America, 'Conuco' in Venzuela, 'Roca' in Brazil, 'Masole' in Central Africa, 'Ladang' in Indonesia, 'Ray' in Vietnam.

10. Answer: B

Explanation:

- The leader of the opposition in the houses of Indian parliament is a statutory post.

- This post is defined in the Salaries and Allowances of Leaders of Opposition in Parliament Act, 1977 as simply the leader of the numerically biggest party in opposition to the government and recognised as such by the speaker/chairman.

- In this Act, the "Leader of the Opposition", in relation to either House of Parliament, means that member of the Council of States or the House of the People, as the case may be, who is, for the time being, the Leader in that House of the party in opposition to the Government having the greatest numerical strength and recognised as such by the Chairman of the Council of States or the Speaker of the House of the People, as the case may be.

11. Answer: B

Explanation:

- A Money Bill may only be introduced in the Lok Sabha, on the recommendation of the President.

- It must be passed in the Lok Sabha by a simple majority of all members present and voting. Following this, it may be sent to the Rajya Sabha for its recommendations, which Lok Sabha may reject if it chooses to.

- If such recommendations are not given by the Rajya Sabha within 14 days, it will deemed to be passed by Parliament.

12. Answer: B

Explanation:

- The Central Education Institutions (Reservations in Teachers' Cadre) Ordinance, 2019 provides for reservation of teaching positions in central educational institutions for persons belonging to the Scheduled Castes, Scheduled Tribes, and the socially and educationally backward classes.

- The Ordinance will apply to 'central educational institutions' which include universities set up by Acts of Parliament, institutions deemed to be a university, institutions of national importance, and institutions receiving aid from the central government.
- It excludes certain institutions of excellence, research institutions, and institutions of national and strategic importance which have been specified in the Schedule to the Ordinance. It also excludes minority education institutions.

13. Answer: C

Explanation:

The MSP is the rate at which the Centre procures crops from farmers. The Cabinet Committee of Economic Affairs announces MSP for various crops at the beginning of each sowing season based on the recommendations of the Commission for Agricultural Costs and Prices (CACP). The CACP takes into account demand and supply, the cost of production and price trends in the market among other things when fixing MSPs.

14. Answer: C

Explanation:

Mohiniyattam, is one of the eight classical dances of India that developed and remained popular in the state of Kerala. It is performed only by females. The other classical dance form from Kerala is Kathakali.

15. Answer: D

Explanation:

Panna National Park is located in Madhya Pradesh.

16. Answer: A

Explanation:

PM KISAN is a Central Sector scheme with 100% funding from Government of India. Under the scheme, Income support of Rs.6000/- per year in three equal installments will be provided to small and marginal farmer families having combined land holding/ownership of upto 2 hectares.

17. Answer: D

Explanation:

Chhau is a semi classical Indian dance with martial, tribal and folk traditions which finds its origin in Eastern India. The Chau mask of Purulia has been presented with the Geographical Indication (GI) tag by the Geographical Indication Registry and Intellectual Property India. The dance is included in UNESCO's intangible cultural heritage list.

18. Answer: C

Explanation:

The Gomira dance is also part of the ritualistic dance forms that prays the Adi-Shakti or the primordial energy. Though Gomira is celebrated in jalpaiguri and Dinajpur, it's originated from Malda (West Bengal). Traditionally the Gomira starts four days prior to the end of Chaitra and ends in the first day of Baisakh. The Gomira dances or Mukha Khel are organised to propitiate the deity to usher in the 'good forces' and drive out the 'evil forces' during the harvesting season. The play is only performed by the males but they also enact the character of the females.

19. Answer: C

Explanation:

Salween River is a major river in Southeast Asia. It flows through parts of China, Thailand, and Myanmar. The river empties into the Gulf of Martaban of the Andaman Sea at Moulmein.

20. Answer: D

Explanation:

Ishwar Chandra Vidyasagar is a social reformer and a key figure of the Bengal Renaissance. He was the most prominent campaigner for Hindu widow remarriage.

21. Answer: B

Explanation:

GHI was initially published by the International Food Policy Research Institute (IFPRI) and Welthungerhilfe. In 2007, the Irish NGO Concern Worldwide also became a co-publisher. In 2018, the GHI was a joint project of Welthungerhilfe and Concern Worldwide, with IFPRI stepping aside from its involvement in the report. The GHI ranks countries based on four key indicators — undernourishment, child mortality, child wasting and child stunting.

22. Answer: C

Explanation:

The World Investment Report covers the latest trends in foreign direct investment around the World and analyses in depth one selected topic related to foreign direct investment and development. It is published by UN Conference on Trade and Development (UNCTAD).

23. Answer: B

Explanation:

Investor Education and Protection Fund Authority is set up under the Ministry of Corporate Affairs, Government of India as a statutory body under Companies Act 2013. It aims to administer the Investor Education and Protection Fund with the objective of promoting Investor's Education, Awareness and Protection. It takes various initiatives to fulfil its objectives through Investor Awareness Programmes.

24. Answer: C

Explanation:

e-SAMVAD is an initiative of the Ministry of Women and Child Development. It is a Web portal for NGOs. It acts as an interactive portal allowing NGOs to contact the Union Ministry of Women and Child Development and share their feedback, suggestions, grievances and their best practices.

25. Answer: C

Explanation:

- Bhutan is a carbon negative country.
- 'Druk Yul', which is the local name for Bhutan, means "Land of the Thunder Dragon."
- Bhutan is the only country in the world to officially measure national happiness. The index is known as GNH (Gross National Happiness).

26. Answer: A

Explanation:

- Plasmodium falciparum is a protozoan parasite that causes malaria.
- The World Malaria Report is published by the World Health Organization (WHO).

27. Answer: C

Explanation:

- Planets that orbit stars other than our Sun are called exoplanets.
- The transit method of detecting exoplanets looks for dips in the visible light of stars, and requires that planets cross in front of stars along our line of sight to them.
- Repetitive, periodic dips can reveal a planet or planets orbiting a star.

- Transit photometry, which looks at how much light an object puts out at any given time, can tell researchers a lot about a planet.
- Based on how much of a dip in light a planet causes in its star, one can determine that planet's size.
- Looking at how long it takes a planet to orbit its star, scientists are able to determine the shape of the planet's orbit and how long it takes the planet to circle its sun.

28. Answer: C

Explanation:

- Persistent organic pollutants (POPs) are organic compounds that are resistant to environmental degradation.
- POPs bio-magnify throughout the food chain and bio-accumulate in organisms. The highest concentrations of POPs are thus found in organisms at the top of the food chain.

29. Answer: A

Explanation:

The Election Commission of India consists of members having a tenure of six years.

30. Answer: A

Explanation:

31. Answer: A

Explanation:

Vedanthangal Bird Sanctuary is in Tamil Nadu.

32. Answer: D

Explanation:

Beekeeping is also known as "Apiculture". Apiculture is the practice of keeping bees as well as the manufacturing of honey and beeswax.

33. Answer: D

Explanation:

Following is the list of UNESCO Natural World Heritage Sites:

- Great Himalayan National Park
- Kaziranga National Park
- Keoladeo National Park
- Khangchendzonga National Park (mixed natural and cultural)
- Manas Wildlife Sanctuary
- Sundarbans National Park
- Nanda Devi and Valley of Flowers National Parks
- Western Ghats

34. Answer: B

Explanation:

Chief Justice of India and every Judge of the Supreme Court shall be appointed by the President of India.

35. Answer: D

Explanation:

The Radcliffe Line was the boundary demarcation line between the Indian and Pakistani portions of the Punjaband Bengal provinces of British India. It is named after its architect, Sir Cyril Radcliffe, who, as

the joint chairman of the two boundary commissions for the two provinces, received the responsibility to equitably divide the territory.

36. Answer: D

Explanation:

The Lushai Hills (or Mizo Hills) are a mountain range in Mizoram and Tripura, India. Mikir Hills are a group of hills located to the south of the Kaziranga National Park, Assam. The Abor Hills is a region of Arunachal Pradesh in the far northeast of India, near the border with China.

37. Answer: D

Explanation:

- The International Court of Justice or the ICJ, is the principal judicial organ of the United Nations.
- The International Court of Justice was established in 1945 by a UN Charter and it began work in 1946, as a successor to the Permanent Court of International Justice.
- It settles legal disputes between member countries and gives advisory opinions to authorized UN organs, and specialized agencies.
- The ICJ comprises a panel of 15 judges, elected by the General Assembly and the Security Council. These judges are elected for 9 year terms.
- The Court sits in the Peace Palace in the Hague, Netherlands.
- Chapter 14 of the UN Charter authorizes the UN Security Council to enforce court ruling. However, such enforcement is subject to the veto power of the 5 permanent members of the Security Council.

38. Answer: C

Explanation:

The Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and Their Disposal, usually known as the Basel Convention, is an international treaty that was designed to reduce the movements of hazardous waste between nations, and specifically to prevent transfer of hazardous waste from developed to less developed countries (LDCs). Basel Convention does not set legally binding destruction obligations; rather it only offers non-binding disposal guidelines. It also does not cover radioactive wastes.

39. Answer: C

Explanation:

Agenda 21 is a non-binding action plan of the United Nations with regard to sustainable development. It is a product of the Earth Summit (UN Conference on Environment and Development) held in Rio de Janeiro, Brazil, in 1992.

40. Answer: A

Explanation:

Gaj Yatra, a nationwide campaign to protect elephants, was launched on the occasion of World Elephant Day in 2017. The campaign aims to cover 12 elephant range states. It is not a part of the Rath Yatra celebrations. The 15 months campaign will be led by the Wildlife Trust of India (WTI).

41. Answer: C

Explanation:

- Continental drift theory was proposed by Alfred Wegener in 1912.
- The theory deals with the distribution of the oceans and the continents.
- According to Wegener's Continental Drift theory, all the continents were one single continental mass (called a Super Continent) – Pangaea and a Mega Ocean surrounded this supercontinent. The mega ocean is known by the name Panthalassa.

- The supercontinent was named Pangaea and the Mega-ocean was called Panthalassa.
- According to this theory, the supercontinent, Pangaea, began to split some two hundred million years back.
- Pangaea first split into 2 big continental masses known as Gondwanaland and Laurasia forming the southern and northern modules respectively.
- Later, Gondwanaland and Laurasia continued to break into several smaller continents that exist today.

42. Answer: D

Explanation:

The government set up the National Water Informatics Centre (NWIC) in 2018 for maintaining a comprehensive water resources data. NWIC would function as the single window source of updated data on water resources in the country.

The NWIC would also work with prominent Indian and international research institutes for providing technical support to the state and central organizations that deal with water emergency response of hydrological extremes.

- It is a repository of nation-wide water resources data
- It works as a Subordinate Office under the Ministry of Water Resources, River Development and Ganga Rejuvenation.
- It will provide latest and reliable water data (other than classified data) through web-based India Water Resources Information System (India-WRIS) on a GIS platform in Public Domain.
- It is a component of National Hydrology Project and also in consonance with the National Water Mission which has an objective of "conservation of water, minimizing wastage and ensuring its more equitable distribution through integrated water resources development and management".

43. Answer: B

Explanation:

National Disaster Management Authority (NDMA), is an agency of the Ministry of Home Affairs whose primary purpose is to coordinate response to natural or man-made disasters and for capacity-building in disaster resiliency and crisis response. It is headed by the Prime Minister, and State Disaster Management Authorities (SDMAs) headed by respective Chief Ministers.

44. Answer: A

Explanation:

Project Tiger was first launched in Jim Corbett National Park of Uttarakhand.

45. Answer: A

Explanation:

Vaitarna Hydroelectric Power Plant India is located in Maharashtra.

46. Answer: A

Explanation:

With the intent to effectively address the evil of sexual exploitation and sexual abuse of children, Protection Of Children from Sexual Offences Act (POCSO) was passed by the parliament in the year 2012. "Children" according to the Act are individuals aged below 18 years. The Act is gender neutral. Different forms of sexual abuse including but not limited to sexual harassment, pornography, penetrative & non-penetrative assault are defined in the Act.

47. Answer: C

48. Answer: D

49. Answer: B

Explanation:

It is one of the 34 provinces of Afghanistan, located in the eastern part of the country.

50. Answer: C

Explanation:

Special 301 Report

- It is prepared annually by the Office of the United States Trade Representative (USTR) that identifies trade barriers to United States companies and products due to the intellectual property laws, such as copyright, patents and trademarks, in other countries.
- The Special 301 Report is published pursuant to Section 301 of the Trade Act of 1974
- By statute, the annual Special 301 Report includes a list of "Priority Foreign Countries", that are judged to have inadequate intellectual property laws; these countries may be subject to sanctions.
- In addition, the report contains a "Priority Watch List" and a "Watch List", containing countries whose intellectual property regimes are deemed of concern.

51. Answer: C

Explanation:

The World Bank Group announced that Anshula Kant, an Indian national, had been appointed its next MD and CFO.

52. Answer: D

Explanation:

It includes the US, Afghanistan, China and Pakistan.

53. Answer: C

Explanation:

- Chandrayaan-2, India's second lunar mission, has three modules namely Orbiter, Lander (Vikram) & Rover (Pragyan).
- The Orbiter and Lander modules will be interfaced mechanically and stacked together as an integrated module and accommodated inside the GSLV MK-III launch vehicle.
- The Rover is housed inside the Lander.
- After launch into earth bound orbit by GSLV MK-III, the integrated module will reach Moon orbit using Orbiter propulsion module.
- Subsequently, Lander will separate from the Orbiter and soft land at the predetermined site close to lunar South Pole.
- Further, the Rover will roll out for carrying out scientific experiments on the lunar surface.
- Instruments are also mounted on Lander and Orbiter for carrying out scientific experiments

54. Answer: C

Explanation:

- Krishnadeva Raya is credited with building some fine temples and adding impressive gopurams to many important south Indian temples. He also founded a suburban township near Vijayanagara called Nagalapuram after his mother.

- Vijayanagara architecture is also known for its adoption of elements of Indo Islamic Architecture in secular buildings like the Queen's Bath and the Elephant Stables, representing a highly evolved multi-religious and multi-ethnic society.

55. Answer: C

Explanation:

- Black holes are volumes of space where gravity is extreme enough to prevent the escape of even the fastest moving particles. Not even light can break free, hence the name 'black' hole.
- Stellar-mass black holes have been found scattered throughout the Milky Way and supermassive black holes containing millions to billions of times the mass of the Sun have been found inhabiting the Milky Way's center and the cores of most large galaxies.

56. Answer: D

Explanation:

- GSLV Mk III is a three-stage heavy lift launch vehicle developed by ISRO. The vehicle has two solid strap-ons, a core liquid booster and a cryogenic upper stage.
- GSLV Mk III will be capable of placing the 4 tonne class satellites of the GSAT series into Geosynchronous Transfer Orbits.

57. Answer: C

Explanation:

Samagra Shiksha Scheme is an overarching programme for the school education sector extending from pre-school to class 12. It has been prepared with the broader goal of improving school effectiveness measured in terms of equal opportunities for schooling and equitable learning outcomes. It subsumes the three Schemes of Sarva Shiksha Abhiyan (SSA), Rashtriya Madhyamik Shiksha Abhiyan (RMSA) and Teacher Education (TE). The Scheme will be implemented as a Centrally Sponsored Scheme through a single State Implementation Society (SIS) at the State/UT level.

58. Answer: B

Explanation:

Attappadi Reserve Forest is a protected area in Kerala. It is one of many reserved forests and protected forests of India. It is an informal buffer zone bordering the Silent Valley National Park (in Kerala) to the West.

59. Answer: C

Explanation:

Coral polyps are actually the animal that is coral. One branch of "coral," or the exoskeleton produced by coral, is covered in thousands of polyps known as a coral colony. Coral polyps consist of a tiny bag-like body with an opening lined with tentacles. As these polyps grow, they produce a limestone skeleton. After they die (usually a few years), the skeleton is used as a foundation for a new polyp, eventually building the formations of a reef. Studies show that some corals can live for up to 5,000 years, making them the longest living animals on Earth.

60. Answer: C

Explanation:

The Start-up Village Entrepreneurship Program is a sub component of Deendayal Antyodaya Yojana – National Rural Livelihoods Mission (DAY-NRLM) of the Ministry of Rural Development. SVEP aims to support entrepreneurs in rural areas to set up local enterprises. Any Rural poor who is willing to be entrepreneurial and self-reliant is eligible to be part of this programme. Highly vulnerable beneficiaries under MGNREGA, marginalized sections, women, SC and ST communities and rural artisans will be given specific preference in selection, as part of this programme.

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61. Answer: D

Explanation:

Both statements are correct. Radio-frequency identification (RFID) uses electromagnetic fields to automatically identify and track tags attached to objects. The tags contain electronically stored information. RFID tags can be attached to cash, clothing, and possessions, or implanted in animals and people. The possibility of reading personally-linked information without consent has raised serious privacy concerns.

62. Answer: B

Explanation:

It is an international recognition conferred on beaches that meet certain criteria of cleanliness and environmental propriety. The Blue Flag Programme for beaches and marinas is run by the international, non-governmental, non-profit organisation FEE (the Foundation for Environmental Education). It started in France in 1985 and has been implemented in Europe since 1987, and in areas outside Europe since 2001, when South Africa joined. There are nearly 33 criteria that must be met to qualify for a Blue Flag certification, such as the water meeting certain quality standards, having waste disposal facilities, being disabled- friendly, have first aid equipment, and no access to pets in the main areas of the beach. Some criteria are voluntary and some compulsory.

63. Answer: B

Explanation:

Dalma Wildlife Sanctuary is a notable wildlife sanctuary in the state of Jharkhand and contains significant population of Indian Elephants. Dalma is known as paradise for elephant. . It is home to elephants, barking deer, sloth bear porcupines and many other animals. The forest cover is denuded because of timber mafia over many years.

64. Answer: A

Explanation:

The Global Counterterrorism Forum is an informal, apolitical, multilateral counter-terrorism (CT) platform that was launched officially in New York on 22 September 2011. India is a founding member.

65. Answer: C

Explanation:

Advaita Vedanta is a non-dualistic school of Hinduism with its roots in the Vedas and Upanishads. It recognizes one reality and one God. Swami Vivekananda was a great lover of Vedantic philosophy. He spread Advaita Vedanta to the west via the Ramakrishna Mission

66. Answer: D

Explanation:

Bengal Florican or Bengal Bustard is Native to Indian Subcontinent. It is Critically Endangered as per the IUCN Red List.

67. Answer: B

Explanation:

Tripura has launched the SCATFORM project. It is undertaken with the assistance of JICA (Japan International Cooperation Agency). The SCATFORM project aims to address issues such as forest cover loss, promotion of bamboo plantation, agroforestry based livelihood, eco-tourism development, development of value addition for bamboo and other Non-Timber Forest Product (NTFP) in order to create alternate livelihood opportunities for local communities.

68. Answer: C

Explanation:

The National Company Law Tribunal is a quasi-judicial body in India that adjudicates issues relating to Indian companies. The tribunal was established under the Companies Act 2013 and was constituted on 1 June 2016 by the government of India and is based on the recommendation of the Justice Eradi committee. The National Company Law Tribunal is the adjudicating authority for insolvency resolution process of companies and limited liability partnerships under the Insolvency and Bankruptcy Code, 2016.

69. Answer: B

Explanation:

The idea of the Preamble in the Constitution was taken from the U.S.A.

70. Answer: B

Explanation:

It is a policy by the U.S.A to use military force if necessary to defend the national interests in the Persian Gulf. It was proclaimed by President of the United States Jimmy Carter.

71. Answer: D

Explanation:

Krishonnati Yojana is an umbrella scheme which includes the following:

- National Food Security Mission (NFSM)
- National Food Security Mission-Commercial Crops
- Mission for Integrated Development of Horticulture (MIDH)
- National Mission on Oilseeds and Oil Palm
- National Mission for Sustainable Agriculture (NMSA)
- National Mission on Agricultural Extension and Technology
- Price Stabilization Fund for Cereals and Vegetables

72. Answer: B

Explanation:

Chakmas mostly follow Theravada Buddhism while Hajongs are Hindus and observe Hindu rites and customs.

73. Answer: D

Explanation:

All the centres of the Revolt of 1857 have been rightly matched with the leaders that led the revolt.

74. Answer: C

75. Answer: B

76. Answer: D

Explanation:

A money bill can be a government bill only. No private bill can be a money bill.

77. Answer: C

Explanation:

The Strait of Hormuz is a strait between the Persian Gulf and the Gulf of Oman. A third of the world's liquefied natural gas and almost 20% of total global oil consumption passes through the strait, making it a highly important strategic location for international trade.

78. Answer: C

79. Answer: D

80. Answer: B

Explanation:

Approx Latitudinal locations:

1. Strait of Hormuz – 26.6 degrees North

2. Strait of Malacca – 4 degrees North

3. Strait of Gibraltar – 36 degrees North

4. Sunda Strait – 5 degrees South

81. Answer: C

Explanation:

- The president stands removed when the motion for his/her removal is passed by the second house. Since there is no need for sign of executive, this is a purely legislative decision.

- On the other hand, all other constitutional authorities require either the bill or the order to be signed by the president. Thus, it is an executive decision.

82. Answer: B

Explanation:

Chirped pulse amplification means Chirped pulse amplification (CPA) is a technique for amplifying an ultrashort laser pulse up to the petawatt level with the laser pulse being stretched out temporally and spectrally prior to amplification. For this technique, Donna Strickland and Gérard Mourou received the Nobel Prize in Physics in 2018.

83. Answer: B

Explanation:

Statement 1 is incorrect – The Red List process has become a massive enterprise involving the IUCN Global Species Program staff, partner organizations and experts in the IUCN Species Survival Commission and partner networks who compile the species information to make The IUCN Red List the indispensable product it is today. Therefore, it is not restricted to government sources.

Statement 2 is correct. It not only assesses new species, but reassesses existing species to check their status for any improvements.

84. Answer: C

Explanation:

Both statements are correct. TKDL is available in five languages: English, German, French, Japanese and Spanish.

85. Answer: B

Explanation:

A hope spot is an area of an ocean that needs special protection because of its wildlife and significant underwater habitats. Andaman and Nicobar Islands and Lakshadweep islands are the first in India to make it to the list of global hope spots.

86. Answer: D

Explanation:

All the given statements are correct. Serious Fraud Investigation Office is a multi-disciplinary organization for detecting and prosecuting white-collar crimes/frauds, under the Ministry of Corporate Affairs. Section 211 of the Companies Act, 2013, has accorded statutory status to the Serious Fraud Investigation Office (SFIO). By virtue of various other provisions of the Companies Act, 2013, SFIO is vested with the requisite legal authority to conduct investigation.

87. Answer: B

Explanation:

International Finance Corporation is a sister organization of the World Bank and member of the World Bank Group. It is the largest global development institution focused exclusively on the private sector in developing countries. The IFC is owned and governed by its member countries, but has its own executive leadership and staff that conduct its normal business operations.

88. Answer: C

Explanation:

1854 Wood's Despatch on Education in 1854 laid the foundation of Indian educational system and the establishment of Universities in Kolkata, Mumbai and Chennai. The despatch came to be considered as the Magna Carta of English education in India.

89. Answer: D

Explanation:

All the statements are correct. India is the only South Asian Nation member of the African Development Bank.

90. Answer: C

Explanation:

The Corruption Perceptions Index (CPI) is an index published annually by Transparency International since 1995 which ranks countries by their perceived levels of public sector corruption, as determined by expert assessments and opinion surveys.

91. Answer: C

Explanation:

The Sangai is an endemic and endangered subspecies of brow-antlered deer found only in Manipur, India. Sangai festival is celebrated in the State of Manipur and is named after the state animal.

92. Answer: C

Explanation:

FAME -India [Faster Adoption and Manufacturing of Hybrid & Electric Vehicles in India] scheme was formulated by the Department of Heavy Industry under the Ministry of Heavy Industries and Public Enterprises, as a part of the National Electric Mobility Mission Plan 2020. The objective of the scheme is providing monetary and fiscal incentives for market creation and adoption of electric & hybrid technology vehicles in the country. It is a part of the National Electric Mobility Mission Plan 2020.

93. Answer: A

Explanation:

World Economic Outlook (WEO) is published by International Monetary Fund.

94. Answer: B

Explanation:

Golden Crescent is the region spanning across Afghanistan, Iran, and Pakistan.

95. Answer: C

Explanation:

Global Relay of Observatories Watching Transients Happen (GROWTH)-Indi is a fully robotic telescope which has been funded by the Science and Engineering Board (SERB) of the Department of Science and Technology. It began its operation at the Indian Astronomical Observatory (IAO) in Hanule in Ladakh

96. Answer: C

Explanation:

It will be a Central Sector Scheme (Scheme implemented by the Central Government machinery and 100% funding by the union government).

97. Answer: D

Explanation:

Gharial Crocodiles inhabit deep freshwater habitats, not both freshwater and saltwater habitats as inhabited by crocodile species. The gharial is one of three crocodilians native to India, the other two being the mugger crocodile and the saltwater crocodile.

98. Answer: A

Explanation:

The Ibadat Khana was a meeting house built in 1575 CE by the Mughal Emperor Akbar at Fatehpur Sikri to gather spiritual leaders of different religious grounds so as to conduct a discussion on the teachings of the respective religious leaders.

99. Answer: B

Explanation:

Mudiyettu is a traditional ritual theatre and folk dance drama from Kerala. The ritual is a part of the Bhagwati cult.

100. Answer: C

Explanation:

Orang National Park is located on the North Bank of Brahmaputra River, in Assam. Orang park contains significant breeding populations of several mammalian species. Apart from the great Indian one-horned rhinoceros, which is the dominant species of the national park, the other key species sharing the habitat are the royal Bengal tiger, Asiatic elephant, pygmy hog, hog deer and wild boar.

101. Answer: B

Explanation:

Measles, also known as morbilli or rubeola or red measles, is a highly contagious, rash-causing viral infection belonging to paramyxovirus family. It also causes upper respiratory symptoms and fever.

102. Answer: D

103. Answer: C

Explanation:

Tilak launched the Indian Home Rule League in April 1916 at Belgaum. Annie Besant launched the Home Rule League in September 1916 at Madras. They had the common objective of achieving self-government in India. Tilak's movement was confined to Maharashtra and Karnataka. And Annie Besant movement spread to other parts of India. In 1921 All India Home Rule League changed its name to Swarajya Sabha.

104. Answer: A

Explanation:

When a full moon occurs at its Perigee, it is called a supermoon. The second full moon in a month is called a "Blue moon".

105. Answer: C

Explanation:

The Geneva Conventions comprise four treaties, and three additional protocols, that establish the standards of international law for humanitarian treatment in war. India is party to the 1949 Geneva Conventions and several weapons treaties but not the 1977 Additional Protocols.

106. Answer: B

Explanation:

Researchers have discovered Dracaena cambodiana – a Dragon tree species in Assam's West Karbi Anglong dist. The plant yields dragon's blood — a bright red resin. This is for the first time that a dragon tree species has been reported from India.

107. Answer: A

Explanation:

Wombats are short-legged, muscular marsupials that are native to Australia. They are endemic to Australia and a few offshore islands. They are largely nocturnal and walk on all four limbs.

108. Answer: C

Explanation:

The World Tourism Organization (UNWTO) is the United Nations agency responsible for the promotion of responsible, sustainable and universally accessible tourism.

As the leading international organization in the field of tourism, UNWTO promotes tourism as a driver of economic growth, inclusive development and environmental sustainability and offers leadership and support to the sector in advancing knowledge and tourism policies worldwide.

109. Answer: B

Explanation:

Peat forms in bogs which are a type of wetland with a high acidic content.

110. Answer: C

Explanation:

The Buddha and His Dhamma, a treatise on Buddha's life and Buddhism, was the last work of B. R. Ambedkar. It was first published in 1957 after Ambedkar's death on 6 December 1956.

111 Answer: A

Explanation:

The three primary dance positions in Odissi are Samabhanga, Abhanga and Tribhanga. The dance form is performed by both men and women.

112. Answer: C

Explanation:

PUNCH (Polarimeter to Unify the Corona and Heliosphere) is focused on understanding the transition of particles from the Sun's outer corona to the solar wind that fills interplanetary space. PUNCH will consist of a 'constellation' of four suitcase-sized microsats that will orbit the Earth in formation and study how the corona, which is the atmosphere of the Sun, connects with the interplanetary medium. The mission is expected to be launched in 2022.

113. Answer: B

Explanation:

Uranus has five major moons: Miranda, Ariel, Umbriel, Titania, and Oberon. They range in diameter from 472 km for Miranda to 1578 km for Titania.

114. Answer: A

Explanation:

Mandamus is a judicial writ issued as a command to an inferior court or ordering a person to perform a public or statutory duty.   This writ is a command issued by court to a public official, public body, corporation, inferior court, tribunal or government asking them to perform.

115. Answer: C

Explanation:

- Mariana Trench is the deepest part of the world's oceans.
- It is located in the western Pacific Ocean.
- The trench is not the part of the seafloor closest to the center of the Earth. This is because the Earth is not a perfect sphere; its radius is about 25 kilometres (16 mi) less at the poles than at the equator.
- The Mariana Trench is part of the Izu-Bonin-Mariana subduction system that forms the boundary between two tectonic plates.
- In this system, the western edge of one plate, the Pacific Plate, is subducted (i.e., thrust) beneath the smaller Mariana Plate that lies to the west.
- Crustal material at the western edge of the Pacific Plate is some of the oldest oceanic crust on earth (up to 170 million years old), and is, therefore, cooler and denser; hence its great height difference relative to the higher-riding (and younger) Mariana Plate.

116. Answer: A

Explanation:

The first product in India to be accorded with GI tag was Darjeeling tea in the year 2004-05. The first Odia product to receive a GI tag was Kandhamal Haldi, a type of turmeric produced by tribal farmers in the state's Kandhamal district.

117. Answer: D

Explanation:

Pench Tiger Reserve is located in Madhya Pradesh.

118. Answer: A

Explanation:

The craft forms of Warangal Dhurries and Adilabad Dhokra from Telangana are awarded a Geographical Indication Tag (GI Tag) by the Geographical Indication Registry based in Chennai. Warangal Dhurries is a famous variety of traditional rug made out of cotton and Adilabad Dhokra is an ancient bell metal craft.

119. Answer: D

120. Answer: B

Explanation:

The largest lake in the state of Kerala, Vembanad Kayal is constantly counted as the longest Lake in India. Spanning several districts in the state of Kerala, it is known as Vembanadu Lake in Alappuzha, Punnamada Lake in Kuttanad and Kochi Lake in Kochi. Wular lake is considered as the largest fresh water lake of India. It is located in Bandipora district of Jammu and Kashmir. The government of India has identified the Vembanad wetland under the National Wetlands Conservation Programme.

121. Answer: D

Explanation:

The fertilizer industry contributes to two major environmental challenges — imbalance in the nitrogen cycle and climate change. Nitrogen pollution of surface and groundwater in India has reached alarming proportions. After carbon dioxide and methane, nitrous oxide (N2O) is the most potent greenhouse gas, trapping heat and contributing to global warming, climate change. It also destroys stratospheric ozone, which protects the planet from harmful ultraviolet rays.

122. Answer: A

Explanation:

The Indian Medical Association is a national voluntary organisation of Doctors of Modern Scientific System of Medicine in India. It looks after the interest of doctors as well as the well-being of the community at large. It is a society registered under The Societies Act of India. The Indian Medical association is a founder member of the World Medical Association.

123. Answer: C

Explanation:

Chenchus are the members of the Particularly Vulnerable Tribal Group (PVTG). The Chenchus are referred to as one of the Primitive Tribal Groups that are still dependent on forests and do not cultivate land but hunt for a living. They live in states of Andhra Pradesh, Telangana, Karnataka and Odisha. They are an aboriginal tribe whose traditional way of life has been based on hunting and gathering.

MAINS PRACTICE QUESTIONS

1. WHO's first consolidated guideline on self-care interventions for health is a step in placing people at the centre of health care, while maintaining the accountability of the health system. Analyse.

2. The Indian model of GST is unique in the world and represents a paradigm of partnership between Central and State governments and between Government and industry. Elucidate.

3. India should aim for a digital non-alignment. Discuss.

4. Comment on the role of Cooperative Federalism in bringing about agricultural reforms in India.

5. Comment on the role of the 'Leader of Opposition' in parliamentary democracy. Does this post strengthen democracy? Analyze.

6. There is a need to promote community-based care rather than relying only on hospital services. Critically Analyze.

7. Anti-defection law in India needs to be re-examined keeping in mind the increasing defections taking place in the state assemblies. Discuss.

8. The recent floods in Mumbai have reopened the debate on effective flood management and mitigation measures in urban centres. Comment.

9. What do you understand by inheritance tax? Would the reintroduction of such a tax serve as a measure to prevent the concentration of income and wealth in the hands of a few?

10. Indian Aluminium Scrap policy needs a revisit by the the Indian Government. Failing which, India will be dumpyard of scrap waste. Discuss the measures that need to be taken.

11. Digitising internal processes of government is the next step in India's digital revolution. Discuss.

12. In an era of climate change, the State needs to augment the IMD's capabilities. Examine.

13. The Nagaland government is initiating an exercise to prepare a master list of all indigenous inhabitants of the State. Critically examine this initiative. Would the positives outweigh the negatives?

14. With warnings from India's top policy-makers and reports of major cities in India struggling to cope with a water crisis, there's talk about exploring technologies to harness fresh water. Critically examine these technologies. How far would they be effective in preventing a water crisis in the future?

15. It is a matter of fact that religion deeply ingrained in Indian society. Would the intriguing suggestion in the Economic Survey on the use of moral suasion drawn from religious beliefs modify the behaviour of Indians? Critically analyse.

16. What do you understand by Gender Responsive Budgeting (GRB)? GRB increases accountability towards women empowerment programs. Discuss.

17. The automated facial recognition system is opaque, vague and prone to misuse. Critically comment.

18. Witness protection scheme to be introduced in Odisha should act as a template to other states. Discuss.

19. Highlighting some of the latest e-governance initiatives introduced by the government of India, discuss how e-governance tools can be used as instruments for rural and agricultural development.

20. Criminalising Marital Rape may destabilise the institution of marriage apart from being an easy tool for harassing the husbands. Critically comment.

21. What do you understand by Social Audit? Comment on the role played by Social Audits in bridging the gap between the policy objectives and its outcomes.

22. What is the importance of free legal aid in India? Discuss the challenges related to free legal aid services in the country.

23. Demographic divergence between regions in India should be seen as an opportunity for overall socio-economic development in the country. Analyse the statement.

24. What is Extended Producer Responsibility? Discuss the provisions of E-waste Management Rules 2016.

25. 'One Nation, One Ration Card' will bring perceptible changes in the lives of vulnerable migrant workers in India but challenges lie ahead in designing and implementing it. Comment.

26. Discuss the contentious issues that have prevented the Government from embarking on the path of Railway Privatization.

27. The rules-based global economic governance is becoming more fragmented under pressure from growing American unilateralism and Chinese state capitalism. Explain.

28. Chandrayaan 2 is yet another bold attempt being made by ISRO in the area of space research. Examine the uniqueness and importance of such a mission.

29. The government and the Reserve Bank of India (RBI) will reportedly finalize the plans for the overseas issue of sovereign bonds. To what extent would this move by the government help boost private investment in the country? Examine.

30. The principles of Integral Humanism offer powerful solutions for political, social and economic cooperation across the world. Elucidate.

31. Critically analyse the provisions of the Aadhaar amendment bill, 2019.

32. The Persian Gulf provides India an opportunity to step up its strategic engagements beyond investments in the Chabahar port. Discuss.

33. Analyse how Kra Isthmus Canal project can provide huge strategic opportunities to India.

34. Discuss the provisions in the Constitution as well as the steps taken by the Government for eliminating the most prevalent social evil of Child labour in the Indian society.

35. Cyber security is an important arena of internet when the country is moving forward towards a cashless society and digitization. Highlight the need for a comprehensive cyber security policy in India.

36. Worker safety in India's dynamic industrial sector is a black hole in our growth story. Is this addressed by new bills introduced by the Government? Critically examine.

37. Motives behind the continued labelling of forest dwellers as forest destroyers even as evidence depicts that they have actively managed forests is a flawed approach to conserving forests. Examine.

38. IBSA Dialogue Forum has become the voice of Global South and needs to be revitalised. Discuss.

39. Sovereign Bonds route might check all the right boxes today, but might end up creating more problems in the long run. Critically examine.

40. Criminals and Terrorists equipped with increasingly sophisticated tools are taking advantage of encrypted technologies to plan and conceal their crimes, leaving intelligence and law enforcement agencies in the dark and putting public safety and national security at risk. What are the steps taken by the government to address this challenge?

41. Fifty years after bank nationalisation, the image that bank is an enterprise driven by social purpose and political considerations and not depositors' interests, needs to change. Critically analyse.

42. Critically discuss the discretionary role of speaker in maintaining balance between the treasury and opposition in the times of political crisis.

43. 'It is time that India stops punching below its weight, when confronted with an adverse scenario between two heavyweights, in the Indo-Pacific region.' Critically analyse, with reference to recent US – Iran crisis.

44. Discuss the various factors contributing to the Geopolitical Significance of the Indian Ocean Region. What are the challenges faced by India owing to the intense activities of China in the region?

45. Introduction of a two-child norm in India as mentioned in the Population Regulation Bill will prove to be ineffective and will lead to undesirable outcomes. Critically Analyse.

46. Amendments proposed to the RTI Act will impact daily fight against corruption. Comment.

47. With the successful launch of Chandrayaan 2, India has taken a significant step towards recognition as a space power. Discuss.

48. Explain the factors responsible for the origin of ocean currents. How do they influence regional climates, fishing and navigation?

49. The behaviour of the Indian monsoons has been changing due to humanizing landscapes. Discuss.

50. India must deregulate the space sector to encourage private enterprise if she is to compete in the new space economy. Critically Analyse.

51. Evaluate the various resources of the oceans that can be harnessed to meet the resource crisis in the world.

52. Amendments to the Unlawful Activities (Prevention) Amendment Bill 2019, violates the principle of Natural Justice and raises large concerns over its misuse. Critically comment.

53. Debate in Parliament is indicative of the intent with which the legislature enacts a law. In the absence of parliamentary debate, courts will have nothing to rely on to understand the rationale behind the provisions of a law. Analyse the statement in the light of fast disposal of bills in the current parliamentary session.

54. Citizenship Amendment Bill carries the danger of making discrimination a formal part of India's refugee policy. Critically Analyse.

55. In the backdrop of growing list of spacefaring nations, there is an urgent necessity for an international law on ownership in space. Explain the need for such Global guidelines.

56. India's territorial waters are crucial not only in terms of security but in terms of resources also. Discuss.

57. Critically analyse the idea of transforming statutory bodies into Constitutional bodies as a security measure for their integrity and independence.

58. Given the gigantic in size and scope of the Regional Comprehensive Economic Partnership (RCEP), India should not allow the deal to fail. Comment. What are India's concerns with respect to the deal.

59. Local reservations undermine the constitutional rights of individuals and discourage the private sector. Critically Analyse.

60. While India may have achieved its target under the Global Tiger Recovery Program, launched with the aim of doubling the global tiger population by 2022, a few years ahead of schedule, the fast reducing forest cover still presents a threat to the tigers. Examine the statement and suggest the way ahead.

61. Despite the rising mob violence, the political class and bureaucracy have continued to remain a silent spectator. It is high time a legislation to tackle the issue of Mob Lynching is brought about. Comment.

62. Growing tiger numbers point to the urgency of devising conservation models that also work outside protected areas. Discuss.

63. Why were indentured labour taken by the British from India to their colonies? Have they been able to preserve their cultural identity there?

INTERVIEW TRANSCRIPT

Name: Anubhav Singh

AIR: 8 (CSE 2017)

Chairperson: Ms. Smitha Nagraj

Duration: 30 to 35 minutes

About Anubhav Sing

Optional Subject: Mathematics

Work Experience: IRS IT

Education: UG: B.Tech in Civil engineering from IIT Roorkee

Hobbbies: International Cinema and Literature

Ms. Smitha Nagraj

Service: Indian Administrative Service

Cadre: Tamil Nadu

•   Started her career in the Government of Tamil Nadu, where she held positions in various departments, including in the Energy, Finance, Health, Municipal Administration and Water Supply and Small Industries Departments.

•   In Government of India, she has served in the Ministry of Defence, NSCS and in the Department of Personnel & Training. She has also been Executive Director of the Central Social Welfare Board.

Educational Background

•   Masters in Political Science from Jawaharlal Nehru University

•   post graduate Diploma in Mass Communication from IIMC, Delhi

Interview:

•   Since you are an IRS officer. Are you satisfied with the service

•   Do you like raids or formulation of tax policy? (Link from the previous question)

•   Most remarkable personality you have met. (Since the answer was about a friend who is in diary business – couple of questions follow)

•   Benefit of Desi cow over Jersey cow milk.

•   Which one is more important: increasing milk production or safeguarding indigenous breeds?

•   When you become a district collector what will be your priorities?

•   How would you improve the education sector? (link from the answer of the previous question)

•   What are the problems in the higher education sector? Suggest what can be done to overcome the problems.

•   Do you think private universities are good? What are their problem and issues?

•   Give innovative idea to improve higher education

- What is AFSPA and its provisions?

- Should we remove the act? Name two commissions related to AFSPA

- What do you think about loan waivers in UP? Is it a solution for the problems faced by farmers?

- What is your opinion about transition from BS4 to Bs6 emission standards?

- What are the benefits and challenges of direct gasoline injection engines.

- What is .Maslow hierarchy of needs? How will it help in sustainable development and Indian policy making?

- Do you think 93000 Pakistani POWs (Prisoners of War) could have been used to solve Kashmir issue?

(Questions based on educational background of the candidate)

- Differentiate between real, natural and imaginary number.

- When is National Mathematics day celebrated? And why?

- What Is Game theory?

Interview Guidance Program

- A detailed roadmap for Interview Preparation with a special focus on Detailed Application Form (DAF).
- Mock interview sessions with highly experienced panellists including retired Civil Servants and Senior Bureaucrats.
- Well simulated ambience akin to the UPSC Personality Test.
- Performance analysis and evaluation of strengths and weaknesses.

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