

1.1. AADHAAR CONSTITUTIONALLY VALID

Why in news?

On September 26, 2018, a Constitution Bench of the Supreme Court, led by Chief Justice of India by a 4:1 majority upheld the validity of Aadhaar but with certain caveats.

Background

- Aadhaar sought to mandatory requirement of demographic and biometric data of an individual which was argued to be against the fundamental right to privacy.
- Aadhaar Act, 2016 was passed as Money Bill to give statutory backup to the Aadhaar and UIDAI. Its passage as Money Bill too was contested.
- Till now no exclusive Data Privacy Law exist in India giving rise to the concerns of State surveillance and misuse of personal data by the commercial entities.

Highlights of the Verdict

- **Constitutionality of Aadhaar:** Aadhaar scheme, which is backed by the Aadhaar Act, passes the **triple test** laid down in the Puttaswamy (Privacy) judgment to determine the reasonableness of the invasion of privacy (under Art 21) i.e.
 - **Existence of a law** - backed by the statute i.e. the Aadhaar Act, 2016
 - **A legitimate state interest** – ensuring social benefit schemes to reach the deserving and poor
 - **Test of proportionality** - balances benefits of Aadhaar and the potential threat it carries to the fundamental right to privacy.
- **No fear of Surveillance state:** Provisions of the Aadhaar Act “do not tend to create a surveillance state”.
 - Aadhaar collects minimal biometric data in the form of iris and fingerprints, and the Unique Identification Authority of India (UIDAI) — which oversees the Aadhaar enrolment exercise — does not collect purpose, location or details of the transaction.
 - To ensure non tracking, the Court ordered that Authentication logs should be deleted after six months, instead of the five years required under the existing Regulation 27(1) of the Authentication Regulations.
- **Security of the biometric data:** UIDAI has mandated only registered devices to conduct biometric-based authentication transactions.
 - There is an **encrypted, unidirectional relationship** between the host application and the UIDAI. This rules out any possibility of the use of stored biometric, or the replay of biometrics captured from another source.
 - Further, as per the regulations, authentication agencies are not allowed to store the biometrics captured for Aadhaar authentication.
- **Linking of Aadhaar with Financial transactions:** The 2017 amendment to Rule 9 of the Prevention of Money Laundering Act (Maintenance of Records) Rules, 2005 which made linking of bank accounts and all other financial instruments such as mutual funds, credit cards, insurance policies, etc. with Aadhaar mandatory, is declared unconstitutional. Because **the amendment did not stand the proportionality test in the triple test**, thus violating the right to privacy of a person which extends to banking details.
- **Aadhaar Act as Money Bill:** Section 7 being the main provision of the Act, the Supreme Court has upheld the validity of the Aadhaar Act being passed as a Money Bill. Section 7 of the Aadhaar Act, demands for Aadhaar based authentication to receive a subsidy, benefit or service etc. It is very clearly declared in this provision that the expenditure incurred in respect of such a subsidy, benefit or service would be from the Consolidated Fund of India.
- On a similar issue, the court has upheld the validity of Section 59 that also validates all Aadhaar enrolment done prior to the enactment of the Aadhaar Act, 2016. The court has said that since enrolment was voluntary in nature, those who specifically refuse to give consent would be allowed to exit the Aadhaar scheme.

Aadhaar: where's it required and where's it not

- Welfare schemes (PDS, LPG, MGNREGA etc.)
- I-T returns
- Linking to PAN card
- Banks accounts
- SIM cards
- Private companies
- School admissions
- NEET, UGC, CBSE

Impact of the Judgement

- Striking down of Regulation 27(1) and reducing storage period of authentication data from five years to six months will **ensure personal data is not misused**. Amending Regulation 26 and making metabase relating to a transaction impermissible will **prevent fake profiling** of an Aadhaar holder.
- Striking down of Section 47 means **citizens can file a complaint** in case of data theft, which earlier could be done by the government (i.e. UIDAI) alone.
- That portion of **Section 57** of the Aadhaar Act which enables body corporate and individual to seek authentication is held to be unconstitutional. This makes it clear that **Aadhaar may only be used by the government, and not by private parties**.
- The ruling **clears the ambiguity** over several aspects of Aadhaar and unleashes its potential for good governance and effective distribution of social welfare services.
- The constitution bench strikes down the National security exception (Section 33(2)) under the Aadhaar Act while giving citizens the opportunity of being heard before disclosure of information under section 33(1) of the Aadhaar Act. This will indirectly ensure greater privacy of individual's Aadhaar data while restricting the government accessibility to it.
- Aadhaar's role in education and admissions is also restricted now. It upheld the Fundamental Right to Education (Art 21A) of children (6-14 yrs. age) and observed that admission is neither a service nor subsidy.
- The court has struck a delicate balance between the social welfare imperative and the citizen's fundamental right to privacy.

Section 33 of the Aadhaar Act refers to disclosure of information in certain cases

- **Section 33(1)** allows disclosure of information, including identity and authentication records, if ordered by a court not inferior to that of District Judge.
- **Section 33(2)** allows identity and authentication data to be disclosed in the interest of national security on direction of an officer not below the rank of Joint Secretary to the Government of India.

Section 47 of the Aadhaar Act refers to cognizance of offences. Under this section, no court is allowed to take cognizance of any offence punishable under this Act, except on a complaint made by the authority of officer or person authorised by it.

Challenges that still remain

- **For the Fintech companies**, where fraud and impersonation is a high risk, Aadhaar was a substantial support. It allows online authentication of customers leading to quick issuance of financial services and improves the service aspect. Verdict makes it like **removing an enabler** instead of ensuring protection of privacy of data.
- **Impact of mandating Aadhaar on the poor:** Rather than enabling easier access, it may end up harming them by denying them their rights due to technical authentication problems.
- **Privacy:** We need a strong data protection law that prevents the government and private parties from non-consensually using Aadhaar—the **Justice Srikrishna Committee recommendations** provide a good starting point for that.
- The issue of the **right to be forgotten**, in case of Aadhaar data that have been collected, remains a grey area. The judgment does not clearly state that entities such as banks and mobile companies will have to delete the collected information.
- **Aadhaar as a single identifier:** If the Aadhaar number is 'seeded' into every database (train travel, air travel, bank account, mobile phone, employment history, health and so on.), it integrates these data silos. Aadhaar becomes the bridge across the hitherto disconnected data silos. People in government will be able to 'profile' the citizens, by pulling in information from various databases using that single identifier. Just the possibility of such profiling is likely to lead to self-censorship and, is likely to stifle dissent.
- **Minority Judgment:** Contrary to the majority judges, Justice Chandrachud rejected all the arguments and held Aadhaar Act as unconstitutional on the basis of invasion of privacy, all-pervasive state control, and exclusion. Moreover, he held that passing the Aadhaar Act as a money bill was a "fraud on the constitution."

1.2. RESERVATION IN PROMOTIONS

Why in News?

A five-judge Constitution bench allowed for grant of **quota for promotions in the government jobs to SCs and STs without the need to "collect quantifiable data"** reflecting the backwardness among these communities as mandated by the Nagaraj judgement of 2006.

Background

- **Nine judge bench in Indra Sawhney case(1992)**
 - the Supreme Court upheld the Mandal Commission's 27 percent quota for backward classes with a condition that combined reservation should not exceed 50%.
 - It also struck down the government notification reserving 10% government jobs for economically backward classes among the higher castes.
 - Creamy layer must be eliminated from the Backward Classes.
 - There should be no reservation in the promotions.
- As the Indra Sawhney judgement disallowed reservation in promotions and consequential seniority, **Parliament enacted three constitutional amendments** in 1995, 2000 and 2002, the most contested one being Article 16 (4A).
- **Article 16 (4A):** Allows for reservation in matters of promotion, with consequential seniority, in favour of the Scheduled Castes and the Scheduled Tribes which are not adequately represented .
- **Five judge bench in Nagaraj Case(2006)**
 - The court upheld the constitutional validity of the amendments
 - But it also said that for providing quota in promotions the states must provide:
 - ✓ quantifiable data on the backwardness of Scheduled Castes (SC) and Scheduled Tribes (ST)
 - ✓ the facts about their inadequate representation
 - ✓ the overall administrative efficiency.

More about the recent judgement

- The Centre had alleged that the verdict in the M Nagaraj case put unnecessary conditions in granting quota benefits.
- The bench **did not make changes about the two other conditions** given in the 2006 Nagaraj verdict which dealt with adequacy of representation and administrative efficiency.
- The court said that the requirement to collect quantifiable data showing backwardness of SCs and STs was "contrary" to the nine-judge bench judgement in the Indra Sawhney verdict of 1992.
- The apex court also turned down the Centre's plea that overall population of SC/ST be considered for granting quota for them.
- The court also **asked the government to examine the possibility of introducing creamy layer** for Scheduled Castes (SCs) and Scheduled Tribes (STs) says that if some sections bag all the coveted jobs ,it will leave the rest of the class as backward as they always were. This observation has led to criticism of the judgement in some quarters.
- However, it declined the demand to refer the case to a 7 judge bench to reconsider its 2006 Nagaraj judgement.

Arguments against Reservation in promotion

- **Hurts efficiency of administration:** This aspect becomes important in highly technical domains such as Nuclear research, space program, etc.
- **Cornering of Benefits:** Critics point out that like the reservation aspect, even the promotions will be cornered by a select few castes and tribes.
- **Reservation is suffice:** There should not be quota in promotions for higher services as the of backwardness of SC and ST employees is removed once they join government service.

Arguments in favour of Reservation in promotion

- **False notion of “efficiency”**
 - The ‘loss in efficiency’ argument is largely the result of an extremely conservative understanding of ‘merit’.
 - The basis for that argument has never been articulated in any of the Supreme Court’s judgments and has always been stated as a self-evident truth and not grounded in any sort of empirical study.
 - No person can be promoted unless they obtain a good rating in their annual confidential report which is currently the measure of efficiency.
- **Lack of representation in higher levels:**
 - The Scheduled Castes and Scheduled Tribes lack representation mainly at the Group A level which do not have direct recruitment provisions. Promotions are the only way members of these communities can make it to this level.
 - There were only 4 SC/ST officers at the secretary rank in the government in 2017.
- **Large number of Vacant posts:** There was no definition of the expression “backward” of which “quantifiable data” was to be collected. As a result, all promotions made post-Nagraj were struck down on the ground that there was no quantifiable data.
- **Historical disadvantage:** Given that the marker of identity of Scheduled Castes is the historic disadvantage of the untouchable, the question of proving backwardness by quantifiable data for promotion does not arise.

Way forward

- With regards to the Supreme court observation about introduction of creamy layer with respect to SC/ST reservations, talks should be conducted with all stakeholders before moving ahead on such a contentious issue.
- As far as promotions are concerned, as of now there is ambiguity and vagueness in promotion process and hence there is a need for a comprehensive law to be enacted in line with the supreme court judgement.

1.3. CRIMINALISATION OF POLITICS

Why in news?

In **Public Interest Foundation Case** a five-judge Constitution bench headed by Chief Justice issued directions aimed at decriminalisation of politics.

Background

- According to the prevalent law, the lawmakers and candidates are barred under the Representation of Peoples Act (RPA) from contesting elections only after their conviction in a criminal case.
- The current verdict was pronounced on a question whether lawmakers facing criminal trial can be disqualified from contesting elections at the stage of framing of charges against them.

Supreme Court Observations/Recommendations

- Problem of criminalisation of politics is “not incurable” but **requires urgent attention** before it becomes “fatal” to the democracy.
- The Apex court recommended that the **Parliament must make law** to ensure that persons facing serious criminal cases do not enter into the political stream.
- The Court directed **disclosure of criminal cases** pending against the candidate by himself/herself through Election Commission of India and his/her political party.
- Moreover the criminal antecedent of candidates must be **widely publicized** through different media including the websites of concerned political parties.
- Court also made **observations on political parties**. The SC said that it is the political parties that form the government, man the parliament and run the governance of the country. It is therefore, necessary to introduce internal democracy, financial transparency and accountability in the working of the political parties.

Reasons for Criminalisation of Politics

- Vote Bank:** As the SC has observed that we as a voter are not yet organically evolved, therefore, majority of the voters are maneuverable, purchasable. Expenditure for vote buying and other illegitimate purposes through criminals leads to nexus between politicians and criminals.
- Corruption:** In every election all parties without exception put up candidates with a criminal background. The general trend is that these candidates are elected to office. **Institutionalization of corruption** and failure to deal with corruption has bred contempt for the law. This, combined with the criminalization of politics, flourishes the corruption. The past three Lok Sabhas have seen an increasing number of legislators with criminal background or pending cases against them — 124 in 2004, 162 in 2009 and 182 in 2014.
- Loop Holes in The Functioning of Election Commission:** For the past several general elections there has existed a gulf between the Election Commission and the voter. Common people hardly come to know the rules made by the commission. Model Code of Conduct is openly flouted by candidates without any stringent repercussions.
- Denial of Justice and Rule of Law:** Toothless laws against convicted criminals standing for elections further encourage this process. In December 2017, the Government announced to set up 12 **fast-track courts** across the country to try criminal cases pending against sitting MPs and MLAs. 40 percent of pending cases have been transferred to special courts — of which **judgments have been pronounced in just 136 cases (11%)**.
- Though the Representation of the People Act (RPA) disqualifies a sitting legislator or a candidate on certain grounds, there is **nothing regulating the appointments to offices within the party**. A politician may be disqualified from being a legislator, but he may continue to hold high positions within his party, thus also continuing to play an important public role which he/she has been deemed unfit for by the law. Convicted politicians may continue to influence law-making by controlling the party and fielding proxy candidates in legislature.

Legal and Judicial Provisions

- Article 102(1) and 191(1)** disqualifies an MP and an MLA respectively on certain grounds
- Section 8 of the Representation of People Act, 1951**, bans convicted politicians. But those facing trial, no matter how serious the charges, are free to contest elections.
- The Supreme Court in **Lily Thomas case (2013)** held that chargesheeted MPs and MLAs, on conviction for offences, will be immediately disqualified from holding membership of the House without being given three months' time for appeal, as was the case before.
- In **March 2014 SC judgment**, court directed all subordinate courts to give their verdict on cases involving legislators within a year, or give reasons for not doing so to the chief justice of the high court. Progress in this matter has not been reviewed.

Important Data (ADR) - (2014 Lok Sabha elections)

- Out of the 542 winners analysed, 185(34%) winners have declared criminal cases against themselves.
- 112 (21%) winners have declared serious criminal cases including cases related to murder, attempt to murder, communal disharmony, kidnapping, crimes against women etc.
- The chances of winning for a candidate with criminal cases in the elections are 13% whereas for a candidate with a clean record it is 5%.

Impact of Criminalization

- **The law-breakers get elected as law-makers-** The people who are being tried for various offences are given the opportunity to make laws for the whole country, which undermines the sanctity of the Parliament.
- **Loss of public faith in Judicial machinery-** It is apparent that those with political influence take advantage of their power by delaying hearings, obtaining repeated adjournments and filing innumerable interlocutory petitions to stall any meaningful progress. This questions the credibility of the judiciary.
- **Tainted Democracy:** Where the rule of law is weakly enforced and social divisions are rampant, a candidate's criminal reputation could be perceived as an asset. This brings in the culture of muscle and money power in the politics.
- **Self-perpetuating:** Since the parties focus on winnability of the candidate (also hampering the inner party democracy), they tend to include more and more influential elements. Thus, criminalization of politics perpetuates itself and deteriorates the overall electoral culture.

Way Forward

- There is a need to **curb the high cost of campaigning** to provide a level playing field for anyone who wants to contest elections.
- As recommended by the **Law Commission of India's report on Electoral Disqualifications**, by effecting disqualification of tainted politicians at the stage of framing of charges, with adequate safeguards, the spread of criminalisation of politics may be curbed.
- **Filing of a false affidavit** should qualify as a 'corrupt practice' under the Act. Conviction on the charge of filing of a false affidavit must be grounds for disqualification as recommended by the Law Commission.
- The Election Commission must take adequate measures to break the nexus between the criminals and the politicians.
- There are provisions in the Representation of the people Act, 1951 to punish candidates and parties for misuse of religion and other unlawful elements in elections, unfortunately these provisions are not effectively enforced because of lack of political will and prolonged legal battles and litigation.

Various committee observation on Criminalization of Politics

The Santhanam Committee Report 1963

- It referred to political corruption as more dangerous than corruption of officials and recommended for Vigilance Commission both at the Centre and in the States.

Vohra Committee Report (1993)

- It studied the problem of the criminalization of politics and of the nexus among criminals, politicians and bureaucrats in India. However, even after the submission of report 25 years ago, the report has not been made public by the government.

Padmanabhaiah Committee on Police Reforms

- It found that Corruption is the root cause of both politicization and criminalization of the police.
- Criminalization of police cannot be de-linked from criminalization of politics. It is the criminalization of politics, which has produced and promoted a culture of impunity that allows the wrong type of policeman to get away with his sins of commission and omission.

1.4. DISSOLUTION OF MEDICAL COUNCIL OF INDIA

Why in news?

Recently Indian Medical Council (Amendment) Ordinance, 2018 was issued dissolving the Medical Council of India (MCI) and replacing it with a **Board of Governors (BOG)**.

More about news

- The ordinance amends the **Indian Medical Council Act, 1956** and provides for the supersession of the MCI for 1 year till National Medical Commission Bill is cleared in the Parliament.
- In the interim period, the central government will constitute a Board of Governors, which will exercise the powers of the MCI.
- The Board of Governors (BOG) has **7 members with one of these members as the Chairperson of the Board** (NITI Aayog Member Dr. V. K. Paul).

Background

- Various committees such as **Ranjit Roy Chaudhury committee** (2015), **Lodha Panel** (2016) and **Arvind Panagariya** have previously suggested scrapping of the MCI.
- An oversight committee to oversee the MCI, set up on the direction of the Supreme Court recently resigned citing instances of “non-compliance of their instructions by MCI.”

National Medical Commission Bill, 2017

- The Bill sets up the **National Medical Commission (NMC)** which shall replace the **MCI** (Medical Council of India) as top regulator of medical education in India. It will:
 - have 25 members.
 - frame policies for regulating medical institutions and medical professionals.
 - recognize medical qualifications.
 - determine fees for some seats in private medical institutions and deemed universities.
- A **Medical Advisory Council (MAC)** will be set up to provide a platform to states/union territories to express their views and concerns.
- Four autonomous Boards** have been set up under the supervision of the NMC.
 - Under-Graduate Medical Education Board (UGMEB)
 - Post-Graduate Medical Education Board (PGMEB)
 - Medical Assessment and Rating Board (MARB)
 - Ethics and Medical Registration
- A **National Eligibility-cum-Entrance Test (NEET)** will be conducted for admission to under-graduate medical education in all medical institutions regulated by the Bill.
- State Medical Councils** will be set up which will have a role similar to the NMC, at the state level.
- There will be a **National Licentiate Examination** for doctors to obtain a licence to practice after graduation
- The Bill allows practitioners of Ayurveda and other traditional Indian systems of medicine the licence to prescribe allopathic drugs after they have passed a ‘bridge course’.

Arguments for scrapping MCI

- Allegations of corruption:** There have been multiple allegations of bribery against MCI office bearers. In fact the MCI president himself was arrested for allegedly accepting a bribe.
- Opaque functioning:** The opaque accreditation process to medical colleges is one of the major arguments against MCI.
- Separation of functions:** The MCI has been criticised for concentration and centralisation of all regulatory functions in one single body as it regulates both medical education as well as medical practice.
- Conflict of Interest:**
 - The MCI members are elected from the same medical fraternity that they have to control. So there is a clear conflict of interest and the MCI has become an exclusive organisation “by the doctors, for the doctors and of the doctors”.
 - It is heavily influenced by corporate hospitals and meanwhile also provides them with accreditation and assesses their quality.
- Lack of emphasis on medical ethics:** The present focus of MCI is only on licensing of medical colleges and no emphasis is given to the enforcement of medical ethics in education.
- Rising cost of Medical education:** It has failed to stop the sale of medical seats in private colleges for a high capitation fees.
- Lack of sufficient manpower:**
 - It failed to produce sufficient number of doctors. India has 1 doctor for every 1674 people against WHO norm of 1 for every 1000 people.
 - Shortage of teachers in medical colleges also remains a major challenge.

Issues with implementation of the new structure

- **Autonomy:**
 - Critics argue that the autonomy of medical education will entirely go into the hands of the government with MCI getting scrapped.
 - Having nominated members may lead to the chief qualification being proximity to the government of the day.
- **Issues with the NMC bill:**
 - **Fee Capping Dilemma:** The NMC will determine fees for up to 40% of the seats in private medical colleges and deemed universities. There have been various arguments on fee capping by experts:
 - ✓ Some experts say that fees should be capped to enable access to medical education for all.
 - ✓ On the other hand, some suggest that fee capping would discourage entry of private colleges.
 - **Need of diverse stakeholders:** Two-thirds of the members in the NMC are medical practitioners. Expert committees have recommended that the regulator should consist of more diverse stakeholders in order to reduce the influence of medical practitioners in regulating medical education and practice.
 - **Against federal setup:** Previously, all the State governments had representation in MCI while in the NMC bill, only few States in rotation will have representation.
 - **Appellate authority:** In cases of professional or ethical misconduct by medical practitioners, the practitioners can appeal against decision of the NMC to the central government. It is unclear why the central government, and not a judicial body, is the appellate authority.
 - **Renewal of license:** There is no requirement for periodic renewal of the licence to practice. Some countries require periodic testing to ensure that practitioners remain up to date, fit to practice, and give good care to patients.
 - **Issues with the bridge course:** While some emphasise the need for greater integration between traditional and modern schools of medicine, others consider this step harmful for the independent development of AYUSH.

Way Forward

- The government has shown a conciliatory approach by accepting some amendments to the Bill as suggested by the Parliamentary Standing Committee:
 - **Removing the National Licentiate Examination provision:** Final MBBS Examination to be held as a common exam across the country and would serve as an exit test called the National Exit Test (NEXT).
 - **Removing the provision of Bridge course** for AYUSH practitioners.
 - **Fee regulation for 50% seats** (bill had 40%) in private medical institutions and deemed universities. Hence, the government must now move urgently on passing the NMC Bill in the parliament.
- The larger goal of a revamp should be to improve both medical practise and medical education in the country.

2.1. WORLD TRADE ORGANISATION

Why in news?

Presently, IMF, World Bank and WTO has called for reforms in multilateral trading System in order to tackle ongoing trade war between China and US, stalemate at 11th Ministerial Conference of WTO, USA's consideration of withdrawal from WTO.

Organizational Structure of WTO

- **Ministerial Conference** - It Includes all members, **meets once in 2 year** and the **11th Ministerial Conference** was held in **Argentina**)
- **General Council** – It acts a **Dispute Settlement Body and Trade Policy Review Body**.

WTO and its evolution

- **WTO i.e. World Trade Organization** was set up under **Marrakesh Treaty (1994)** as a result of Uruguay Round (1986-1994).
- WTO as an organization was expected to play larger role for **improved living standards, employment generation, trade expansion with increasing share for developing countries and overall sustainable development**. Trade liberalization was seen as means for achieving the above-mentioned objectives.
- Basic principles of trade liberalizations that were to be followed were:
 - **Non-discrimination**— Countries will not discriminate one from another. It had been achieved through Most Favoured Nations status i.e. neutral trading relations and National treatment to non-domestic producers.
 - **Reciprocity**—The concessions conferred by countries had to be mutual.
- These principles are implemented through Ministerial Conferences, taking **consensus-based decisions** based on **'one country one vote'** which demonstrates **democratic structure and processes of WTO**.
- Also, a **dispute resolutions** mechanism provides protection against arbitrariness. The raison d'être of WTO lies in its rule based binding commitment, retreating from which poses greater risks, a scenario unfavorable to member states.

Reforms suggested by EU

1. Proposals for future rule-making activities in WTO

- EU has proposed to create incentives for WTO members to fully comply with their subsidy notification obligations so as to bring more transparency in industrial subsidies provided by Member States. This will help in better implementation of SCM (Subsidies and Countervailing Measures) Agreement.
- It has been further proposed to make rules for better capturing of market-distorting support provided to State owned Enterprises (SOEs) so that they can't escape SCM mechanism.
- It has also proposed rules to address discriminatory practices and barriers to foreign investment in services and technology transfer especially in view of behind the border 'forced technology transfer'.

2. Proposals for a new approach to flexibilities in the context of development objectives

- As per EU, the WTO system remains blocked due to antiquated approach to flexibilities which allows 2/3rd of the membership, including some of the world's most rapid, largest and dynamic economies (China, India, Brazil etc.) to claim special and differential treatment.
- While acknowledging the need for flexible treatment to LDCs, it has sought other Members to move away from blanket exemptions to a needs-driven and evidence-based approach to ensure Special and Differential Treatment to be as targeted as possible.

3. Proposals to strengthen procedural aspects of the WTOs rule making activities

- Flexible Multilateralism- Members interested in pursuing a certain issue which is not yet ready for full multilateral consensus, should be able to advance an issue and reach an agreement if its benefits are made available to all members as MFN.
- Role of WTO Secretariat should be strengthened in support of various negotiations as well as implementation and monitoring functions.

Brewing Discontent

- A democratic inclusive WTO however, started showing signs of discontent. The issues came to surface in the very first Singapore Ministerial (1996).
- Singapore issues spilled over to Seattle, Cancún and finally to Doha Ministerial. The recent trade war between US and China where US is increasing import tariffs is a symptom of the larger rot.

Reasons for Crumbling Of WTO

- **Changing world order:** The unipolar world under US was represented through institutions like WTO. Trade during this phase became rule based in nature which favored the west. But this unipolar world order is facing structural changes with rise of developing countries and their increasing share in world trade. This is perceived by US and EU as unfavorable whom they have attacked by resorting to policies of protectionism. E.g. China via trade war, Solar panel case against India in Dispute Settlement Body.
- **Process Loopholes:** The negotiation process prime facie seems democratic but Ministerial Conferences are accused of being opaque and overly technical. The green room meetings prohibit participation of majority of countries. It has proven to be disproportionately advantageous to developed countries. Moreover, consensus-based rule making has become a root cause in stagnation in reforms.

- **Nature of agreements:** Agreements signed under WTO are alleged to be discriminatory and exclusionary i.e. functioning. DDA (Doha Development Agenda) has still not been able to provide permanent solution to subsidies under domestic support. WTO does not have any agreement to deal with digital enabled trade i.e. e-commerce.
 - Allegations are leveled by developed countries against developing countries for flouting TRIPS. They oppose generic medicines, compulsory license and import substitution. On the other hand, developing countries cite public health concerns and level allegations of ever-greening against pharmaceutical companies.
- **Dispute Resolution:** The dispute resolution mechanism is costly and lengthy. It is majorly resorted to by developed countries and developing countries are victims to the mechanism. There is politicization of the Appellate Body appointment and reappointment process. E.g. solar panel dispute was adjudged in favor of US, this is a case in point.

Why WTO Should Survive?

- Amidst all these challenges that WTO faces, we cannot deny the role it has played in integrating and opening up the world trade.
- WTO regulates 98% of global trade flows. The average value of tariffs has reduced by 85% since 1947. Tariff reduction along with technological advances have driven extra-ordinary expansion of global trade.
- Trade as a share of GDP has grown from 24% in 1960 to 60% in 2015. Expansion of trade has fueled economic growth, created jobs and increased household incomes around the world.
- An ever-deepening rules-based system—notably under the GATT and WTO—brought more openness, transparency, and stability.
- Trade acts as a powerful force too for inclusive Growth, by lowering poverty and by opening opportunities for small firms, women, farmers as well as fishermen.
- As nations' economies have become more and more inter-dependent, breakdown of a trade organization would be a major blow to international trade order.

Way Forward

WTO should reflect the Global structural change

- **Plurilateral trade negotiations-** As WTO is a member led organization, all countries i.e. developed and developing have to join hands to improve its structure and processes. WTO should move to Plurilateral negotiations where like-minded countries can come forward to discuss issues specific to them and form rules with respect to the common issue.
- **Trade agreements** –Today trade has become digital technology enabled and there is urgent need to form an agreement regarding **e-commerce**. Open and regulated electronic commerce that is considerate of national governments sovereignty and security is the need of the hour.
- **Services** today form a bulk of trade i.e. two third of global GDP, yet global trade policy lags behind in services facing higher barriers than goods. To rectify these, GATS has to become more open and transparent. It has to address monopolistic practices, financial regulations and irregular immigration.
- **Trade related policies for inclusiveness-**
 - All member countries need to understand different levels of development of different countries. On the basis of this, a consultation committee has to be formed. The negotiation meetings have to be more open, transparent and inclusive.
 - The agreements on agriculture should be restructured to address concerns of developing countries and Least developed countries.
 - E-commerce should benefit the SMEs and women entrepreneurs for the development of rural economy.
 - Social security laws, skill upgradation, flexible mobility of workers within the international agreements will impart more stability and sustainability to the multilateral trading system.
- **Collective Bargain** Like Minded Groups like G-33, African community has to increase their collective bargain in order to demand favorable provision in agreements on agriculture, services, intellectual property etc. The dispute mechanism should become more powerful and member driven.
- **Change in the mindset of developed countries** - Developed countries like US and EU have to be convinced of the larger role WTO played in their growth and maintenance of open trade system. The time has come for the emerging economies and the developing world to have a greater say in how to shape multilateralism and its institutions. The developed nations have to realize this truth.

2.2. UNREALIZED POTENTIAL OF SOUTH ASIAN TRADE

Why in News?

Recently World Bank has released a report called A Glass Half Full: The Promise of Regional Trade in South Asia.

Trends in trade in South Asia

- **Intra-regional trade-** It accounts for a little more than 5 percent of South Asia's total trade while it accounts for 50 percent of total trade in East Asia and the Pacific and 22 percent in Sub-Saharan Africa.
- **Intra-regional trade part of regional GDP-** The relatively large economies of South Asia just have only 1% of its trade as GDP as against 2.6 percent in Sub-Saharan Africa and about 11 percent in East Asia and the Pacific.
- **Trade Restrictiveness-** According to global trade data, trade restrictiveness index is 2 to 9 times higher for imports from South Asia than rest of the world in case of India, Nepal, Sri Lanka and Pakistan.
- **Disproportionate cost of trade-** The South Asian regional trading cost is 20% higher than ASEAN.

Causes of Skewed Trend

- **Non-functional SAFTA**
 - **Para tariffs** -These are duties levied on imports but not on domestic production. These Para tariffs are kept out of SAFTA thus leads to artificial high tariffs. E.g. simple average tariff in Bangladesh in fiscal year 2016/17 almost doubles, from 13.3 percent to 25.6 percent due to Para tariffs.
 - **Sensitive List** - This list comprises goods that are exempted from tariff rationalization. Almost 35 percent of the value of intraregional trade in South Asia is subject to sensitive list tariffs. There is no provision in SAFTA to phase out this list.
- **Non-Tariff Measures** - Non-tariff barriers (NTBs) in form of sanitary, labor, phyto-sanitary etc. are abnormally high for specific products and market combinations in South Asia. It varies from over 75 percent to over 2000 percent. E.g. port restrictions are imposed by several countries in the region. For instance, Pakistan allows only 138 items to be imported from India over the Attari-Wagah land route, the only land port between the two countries. This erodes market access opportunities. This is further accentuated by information asymmetries with respect to different forms of non-tariff barriers across the region.
- **Lack of Border infrastructure and procedural delays**- There is poor transportation and logistics infrastructure across south Asian borders. Inefficient customs and border procedures makes the trade slow thereby increasing the cost of trade. e.g. cumbersome product registration and requisite authorization processes for pharma import.
- **Poor Regional Connectivity**- There is dearth of air, land and water transportation in the region. The service trade is hugely restricted due to unfriendly visa regimes. It restricts FDI and development of regional value chains.
- **Lack of normal trade between India and Pakistan**- The complex trade relation between India and Pakistan has heavily impacted South Asian trade. The two countries account for 88% of the region's GDP. The trade potential is of \$37 billion which today stands at \$2 billion only.
- **Trust Deficit**-There is security dilemma in the South Asian region due to large size of India vis-à-vis other countries in the region. This fear and insecurity give rise to mistrust which is perpetuated further by a lack of people-to-people interactions and partnerships.

What needs to be done?

- **Restructuring of SAFTA** - Eliminate SAFTA's sensitive list in 10 years and for starters the list can be narrowed down as of now. Also, a panel of experts should be formed to decide on elimination of Para tariffs reduction and accelerate removal of Para tariffs on non-sensitive list.
- **Non-Tariff Barrier reduction**- NTB can be addressed by filling the information gaps, developing border infrastructure and simplifying the administrative procedures. An awareness program across the region and a bilateral dispute resolution mechanism is essential. Introduction of electronic data interchange, risk management systems, and single windows at borders is the need of the hour.

- **Enhance Regional Connectivity** – Connectivity is main constituent of trade relations. Road, rail and air connectivity will induce trade. Bilateral air service policies and simplified Visa regimes should be followed. E.g. success of India Sri Lanka air service agreement.
- **Building Trust**- Trust induces trade and trade results into peace and prosperity. The border haats at India Bangladesh border is a case in point. It has helped in developing social capital between both the countries.

Benefits of enhanced trade

- **Socio economic conditions** - South Asian region suffers from similar problems like poverty, hunger, malnutrition, unemployment, gender discrimination etc. All countries in the region will gain from regional trade as it will help in lowering socioeconomic disparities.
- **Gains to various stakeholders**- Consumers gain from access to food products, services, and consumer goods. Producers and exporters gain from greater access to inputs, investment, and production networks. Firms gain from expanding market access in goods and services.
- **Increased Access to landlocked countries and sub regions** - Landlocked countries like Afghanistan, Bhutan, and Nepal, and isolated sub regions, such as Northeast India and Khyber-Pakhtunkhwa and the Federally-Administered Tribal Areas in Pakistan will benefit as cost of transportation and logistics will come down. It will in turn increase the access.

India -Pakistan trade relations- A recipe for peace

Current Status-Slow progress in trade with declining trend-

- Though trade increased by 3.5 times between 2000-2005 but it was slow. Recently it fell in 2017 to \$2.40 billion from \$2.70 billion in 2013-2014.
 - There has been **minimal increase in Indian exports** after Pakistan's change in import policy in 2012. In 2016-2017 new exports were only 12% of India's total export to Pakistan.
 - In absence of full trade relations there is rampant **illegal trade** routed through West Asia and Nepal.
 - **Indirect trade** via UAE is 10 times the normal bilateral trade.
- Required Changes**
- **Development of Regional Value chains** in textile, pharma and sports goods. Develop links between textile hubs i.e. Lahore and Surat etc.
 - **Normalization of trading relations** i.e. Non-discriminatory in nature thereby complying with the WTO rules.
 - **Narrowing the sensitive list** on both sides and reducing non-tariff barriers.
 - **Business level dialogue**-It includes building social capital in trading community; develop business to business linkages through national chambers and implementing SAARC visa regime.

2.3. EARLY-HARVEST PACKAGE FOR RCEP

Why in News?

Members of the Regional Comprehensive Economic Partnership (RCEP), have finalized an **early-harvest “package”** with the aim of concluding trade negotiations by the year-end.

Background

- The RCEP, forged during the **2012 ASEAN summit in Cambodia**, was built upon the premise of broadening and deepening engagement among parties and facilitating participation to **promote economic development** in the region.
- But the negotiations which had begun in 2012 **resulted in a stalemate** due to various differences among members.
- In the earlier ministerial meetings, India has made it clear that it doesn't favour an "**early harvest**", this means **agreements on all the three pillars** of negotiations — goods, services and investment — can be implemented only as a package, not one at a time. So even if a consensus is reached early on goods (which is what most nations want), it cannot be enforced in isolation.
- The trade ministers of 16 RCEP members met in Singapore on 30th August 2018 to review the progress of negotiations.

Potential gains for India from joining RCEP

- Benefits related to exports:** Apart from various sectors of potential exports growth like processed food, metal manufactures, gems, etc. focusing on trade in services with ASEAN will give India an opportunity to use its competitive strength to become a services export hub for the ASEAN region.
 - This assumes even greater importance since our focus has been on products with favourable terms of trade for India, implying that, per-unit foreign exchange realization from these products will be greater than per-unit foreign exchange expenditure on imports of similar products within intra-industry trade pattern.
- FDI gains-** RCEP will facilitate India's integration into sophisticated regional production networks. The arrangement is expected to harmonise the trade-related rules, investment and competition regimes of India with those of other countries in the group. There would be a boost to inward and outward **foreign direct investment**, particularly **export-oriented FDI**.
- Connection with global value chain-** ASEAN has been a great region in establishing international production network (IPN). India can gain from such experience and help in integrating micro and small-and medium-sized enterprises (MSMEs) into regional value chains.
- Better engagements-** It can deepen integration among the member countries. Given that the possibility of India joining the TPP is still a long way off, being a member of the RCEP will help India prepare itself to better engage with mega FTAs in the future.
 - Regional economic integration is an indispensable component of the Act East policy and joining RCEP has a potential to giving a philip to the policy.



About RCEP

- The RCEP is billed as **an FTA between the 10-member ASEAN bloc and its six FTA partners**— India, China, Japan, South Korea, Australia and New Zealand.
- Once concluded, RCEP will create the largest regional trading bloc, making up 25% of GDP, 30% of global trade, and 26% of foreign direct investment (FDI) flows.
- The RCEP 'guiding principles and objectives state that the "**negotiations on trade in goods, trade in services, investment** and other areas will be conducted in parallel to ensure a comprehensive and balanced outcome."

If India is out of the RCEP, it would make its **exports price uncompetitive** since other RCEP members would enjoy preferential access. The ensuing export-losses contributes to **foreign exchange shortages** and the subsequent extent of depreciation of the rupee.

Potential Challenges for India from RCEP

- **India's trade deficit-** India has **\$104 billion trade deficit** with RCEP grouping, which is **64% of India's total trade deficit** of 2017-18. India has already agreed to offer **tariff liberalization** on 74% of goods from China, Australia and New Zealand, and it could go up to 86% for other RCEP members. This may further increase the deficit.
- **Threat from Chinese products-** The move may lead to Indian markets being flooded with more Chinese goods, especially in steel and textile sector which may harm the local industry and distort trade.
 - India's SME sector will especially face tough competition from China and it is this sector where future jobs can be created because the top notch manufacturing units in India are going for robotics and automation in a big way.
- **Costly legal suits-** Inclusion of an **Investor State Dispute Settlement mechanism** could lead to India getting involved in **costly legal suits** filed against it by corporates.
- **Issue of strict IPR regime-** India has to be wary of measures that may lead to **losing its right to produce cheap generic drugs** due to the enforcement of a **strict IPR regime** related to patent term extension and **data exclusivity**.

Way forward

- India should **focus on skilling its manpower** as the aging countries of Asia would anyway need skilled professionals from India because of its **demographic advantage**.
- Along with negotiating the much-needed space to its real sectors to gain competitive edge, India will need **second-generation reforms** of its **domestic economic policies**, including those that reform its factor markets, to make its trade more competitive. These reforms will help India better access other markets.
- Do a trade deal which will provide the necessary instruments that will **ensure the economic viability of small farmers and industries**, especially small-scale producers, in the face of relentless import competition.
- The government must take into account the deeper **strategic pitfalls of slowing down India's RCEP engagement, i.e.,** giving China further space in the regional trade and security architecture.

2.4. RUSSIA AND CHINA RELATIONS

Why in news?

Russia and China are conducting Russian military exercise **Vostok 2018** along with Mongolia in Russia's Far East and Pacific Ocean.

About the Exercise

- **Nature and scale of the exercise** -The exercise is proclaimed as a **rapprochement** move by Russia to ensure **strategic partnership** between China and Russia. It is the biggest military exercise by Russia since 1981.

Why this exercise- Context

- **US hegemony** - US has recently unveiled its new defense policy that underlines **strategic competition** with Russia and China, thus bringing the two united against US. They both want to revise the status quo by containing US.
- **Changing Geopolitical order** –China's rise since last decade and Russia's continuous attempt to reassert its great power status is a continuous opposition to US led unipolar world. Both perceive the world today as multipolar with various fulcrums of power.

What is aimed to be achieved?

- **Russia's interests**
 - The growing west sanctions and aggressiveness of NATO in Russia's neighbor i.e. Eastern Europe is forcing Russia to look for partners to lessen the damage. As Russian economy is military driven Chinese accommodation in it would **strengthen its defenses**.
 - Russia wants to **assert** its national interests and sovereignty through this exercise.
 - Conducting exercise at this large scale in Far East is to ensure continuation of its development trajectory which has been shadowed several times during the past because of disturbances in this region. e.g. Japan's victory over Russia in 1904-05, Chinese aggression in 1969 etc.
- **China's Stake**
 - China wants to send a strong message to US against its effort to contain China by playing the Russian card.
 - It wants to caution its regional rivals mainly India and Vietnam by its ability of multiple war fighting techniques in different theatres.
 - Also, it wanted to learn from Russian army's vast experience in fighting counter insurgency tactics that Russia used in Syria and Eastern Ukraine.

Effect on India Russia relation

- Russia's accommodation of China has **long term security and strategic implications** for India.
- India has special and privileged strategic partnership with Russia but recently it has been on a decline. India has long been showing inertia with respect to Russia.
- India has been diversifying its defense and increasing its bonhomie with US and while doing this it has not accommodated Russian concerns thus impacting Indo- Russian relations.
- Russia has started changing its earlier stance with respect to China. It has come a long way in promoting military and trade relations with China e.g. selling of Sukhoi 35, armur class submarine etc. Further, it has increased its energy supply to China and has become its largest oil supplier. It has asked India to support OBOR.
- Also, the long maintained embargo on supply of arms to Pakistan has been diluted and it is now favoring Taliban in Afghanistan peace process.
- Russia's stronger relation with China will directly impact India's relation with China and Pakistan. India and China has issues regarding boundary, Pakistan, OBOR, South China Sea etc. China can grow more assertive on these issues with Russian support which can weaken India's strategic interests. Moreover, Russia is India's biggest defense supplier, nuclear and cyber security provider and a trusted ally. Decline in the relation will impact our security interests too.

What should India Do?

India has to realign its relation with Russia in order to maintain balance of power in the region vis a vis China.

- **Developing strong Economic Partnership** – Trade is the weakest link in India Russia relation. No relation can be carried out without a strong economic interdependence in present age. India Russia bilateral trade is around \$11 billion whereas Russia China trade is \$100 billion. India has to address various trade related issues like visa regime, an alternate route to carry trade amidst US sanctions etc.
- **Limitation of Russia-China relation** –Though Russia and China are building their partnership but both countries has structural differences with respect to their position in the world, level of economic growth, relation with US and their role in Central Asia and Europe. India needs to build on these diverging interests between the two. Russia and India can together work in Central Asia and Eastern Europe as India does not pose threat to Russia's position in these regions unlike China. Russia has been a great power and still is a major power India needs to help Russia in building that image again.
- **Common interests of the trio** – India, China and Russia should work together as all three prefer multipolar world order, peace in Afghanistan and stability in Central Asia. The most apt platform to realize this is Shanghai Cooperation Organization.

Conclusion

India has to bring realism into its relation with Russia in order to preserve its strategic and security interests.

2.5. INDIA-BANGLADESH

Why in News?

Recently, India and Bangladesh jointly inaugurated multiple projects in Bangladesh via video conferencing.

About the Inaugurated projects

These projects include:

- Supply of 500 MW additional power supply from India to Bangladesh.
- Construction work of Dhaka-Tongi and Tongi-Joydebpur railway line and Bangladesh part of Akhaura-Agartala railway link.
- Rehabilitation of the Kulaura-Shahbazpur section of Bangladesh Railways.
- Construction of 130-kilometre **India-Bangladesh Friendship Pipeline** Project for the transportation of oil, connecting Siliguri in India and Parbatipur in Bangladesh.

Significance of the move

- It will boost trade and connectivity between Bangladesh and the landlocked northeast.
- The rebuilding of Kulaura-Shahbazpur section of Bangladesh Railways can be seen as part of a trans Asian railway project that seeks to connect South Asia to Southeast Asia.
- It will strengthen the energy partnership between two countries, which is in pursuance of India's neighbourhood first policy.

Comparison of developmental efforts by India and China in Bangladesh

| Area of Cooperation | India's Development efforts in Bangladesh | China's Development efforts in Bangladesh |
|-----------------------------------|---|---|
| Energy | <ul style="list-style-type: none">• Rooppur project is the first initiative under Indo-Russian deal to undertake atomic energy projects in Bangladesh. India will provide personnel training, consultation support and participate in the construction and erection activity and non-critical materials supply to the site in Bangladesh.• India currently exports 660 MW of electricity, on a daily basis, to Bangladesh. | <ul style="list-style-type: none">• China is financing 25 energy projects, including 1320-Megawatt power plant.• A consortium of Chinese company is building Bangladesh First Clean Coal Power plant.• Additionally, China has extended its support to build Bangladesh Second Nuclear power plant. |
| Connectivity | <ul style="list-style-type: none">• Through Protocol on Inland Water Transit and Trade (PIWTT), India is assisting Bangladesh to capture the potential of waterways for both inter and intra border connectivity of Bangladesh.• BBIN Initiative aims to facilitate movement of vehicles carrying cargo and passengers in each other's territory without the need for trans-shipment of goods. | <ul style="list-style-type: none">• Chinese is assisting in construction of highway and rail network connecting Bangladesh through Myanmar to Yunnan province.• Port modernisation and its connectivity efforts are taken by China, assisting Bangladesh to tap marine economy. |
| Trade | <ul style="list-style-type: none">• Reduction in customs and immigration documents, establishment of 49 land notified land customs stations, integrated check post, help in boosting the external trade of Bangladesh. | <ul style="list-style-type: none">• Duty Free accesses to Bangladesh products in China, are boosting domestic economy of Bangladesh. |
| Defence | <ul style="list-style-type: none">• Through the defence cooperation framework pact, India is providing Military equipment and technology transfer for enhancing cooperation in the field of strategic and operational studies. | <ul style="list-style-type: none">• China is a major supplier of defence equipment and also aided Bangladesh in setting up a missile launch pad near Chittagong Port. |
| Education, Health & Communication | <ul style="list-style-type: none">• India has extended financial support for socio-economic sectors of Bangladesh such as primary education, healthcare institutions. Additionally, India has extended National Knowledge Network for digital connectivity of education with Bangladesh. | <ul style="list-style-type: none">• China is financing Info Sarker-3 project, and "Modernization of Telecommunication Network for Digital Connectivity (MoTN)". These projects aim to bring all the ministries, divisions within a public network and increase tele-density. |
| Livelihood | <ul style="list-style-type: none">• India is developing Boarder Haat with Bangladesh. This includes establishment | <ul style="list-style-type: none">• China is providing technical expertise for skill and training enhancement Project. |

| | | |
|-------|--|---|
| | of traditional system of marketing the local produce through local markets. | Its aim is to transform the country into a high productivity economy. |
| Space | <ul style="list-style-type: none"> South Asian Satellite (SAARC Satellite) has been launched to boost regional connectivity in the areas of disaster management, tele-education, tele-medicine inter-government networks etc. | <ul style="list-style-type: none"> Bangabandhu-1 First communication satellite of Bangladesh was negotiated and financed through help of Chinese government. |

Differences in approach of India and China towards Bangladesh:

| India's approach toward Bangladesh | China's approach toward Bangladesh |
|---|--|
| <ul style="list-style-type: none"> India is making inroad to Bangladesh through aid-route. Indian diplomatic efforts are guided by shared history, common heritage, linguistic and cultural ties, passion for music, literature and the arts. Bangladesh is seen as focal point in reducing risk sustainability of North-East region which can be raised due to Chinese influence, terrorist attacks, natural disasters, etc. Port connectivity has been seen as starting point for Act East Policy and to capture the economic prospect with Asian Pacific Region. Solution through Land Boundary Agreement after 40 years of deadlock is seen as an opening door for other contentious issues such as, River Water Dispute, Illegal Migrants, Human Trafficking, illegal Drug trade etc. Bangladesh has been seen as neutralising point against the emerging trend of String of Pearl initiatives for China. | <ul style="list-style-type: none"> China is adopting more capitalist approach and made significant investment in the Bangladesh. Its approach is aimed at consolidating their vision for a maritime corridor extending from the South China Sea to the Indian Ocean via the Bay of Bengal. Present infrastructure building for energy along the Myanmar route can be seen as expansion of energy corridor for China. Ports in Bangladesh are an important motivation for China because it offers a lucrative alternative route to reduce its dependence on the Straits of Malacca for the supply of its energy. China and Bangladesh share several points of strategic convergence, however, Brahmaputra river issue is still a bone of contention. Moreover, Bangladesh is seen as strategic focal point in obtaining Chinese influence in North-Eastern region of India. |

2.6. MALDIVES ELECTIONS

Why in news?

India welcomed the **unexpected victory of the Maldives opposition leader** Ibrahim Mohamed Solih in presidential elections ending President Abdulla Gayoom Yameen's five-year controversial tenure.

Background

- Yameen government which came to power in disputed elections in 2013, had ruled with an iron hand, **withdrawing from the Commonwealth, conspicuously courting China and weakening traditional ties with India -cancelling Indian company GMR's contract to modernise Male airport, rejecting visa renewals of Indians working in the Maldives and declining to participate in joint naval exercises earlier this year.**
- Yameen government is accused of allowing a Chinese 'land grab' of Maldivian islands, key infrastructure, and even essential utilities, which not only undermined the independence of the Maldives, but the security of the entire Indian Ocean region.

Why Maldives election were important?

- Political Crisis:** The election was conducted in the background of an extraordinary situation in which President Yameen had recently declared a state of emergency and ordered the arrest of two judges to force the Bench to its earlier order that was against his government apart from imprisoning his half-brother and former president Maumoon Gayoom.
- Chinese Support:** The election witnessed the massive use of money and muscle power largely sourced from generous Chinese support. Yameen's five-year tenure saw the tiny island abandoning its long-time **pro-India approach to a pro-China policy.**
- Hence, new elected president can reverse the stand of pro-China policy to pro-India policy and also providing chance to improve bilateral relations for India.

Chance for India

- At the moment, India maintains excellent rapport with opposition parties and enjoys wide approval among Maldivian society for its positive role, particularly in the last one year that witnessed a 45-day emergency in February and widespread repression by the incumbent government.
- Delhi seems to have learned a lesson from its bitter experience during the undeclared blockade in Nepal which caused much damage to its goodwill among the Nepalese population.
- The Sri Lankan experience should remind India that given its economic and strategic heft, China will continue to be an influential player in the region, including in the Maldives. Rather than getting obsessive about keeping China out of this strategic archipelago of the Indian Ocean, India should work with other powers, particularly the United States (US) and European Union to ensure that the Maldives' transition to democracy remains on smooth course.
- India can move forward with confidence and circumspection to mend the battered bilateral relations with Maldives.

Importance of Maldives for India

- Strategically located in the Indian Ocean, Maldives archipelago comprising 1,200 coral islands lies next to key shipping lanes which ensure uninterrupted energy supplies to countries like China, Japan and India.
- As the pre-eminent South Asian power and a '**net security provider**' in the Indian Ocean region, India needs to cooperate with Maldives in security and defence sectors.
- India was among the first to recognise Maldives after its independence in 1965 and to establish diplomatic relations with the country.
- Indians are the second largest expatriate community in the Maldives with approximate strength of around 26,000. Indian expatriate community consists of workers as well as professionals.
- Indian Army's 'Operation Cactus' foiled a coup in Maldives that was attempted by a pro-Eelam group in 1988.
- India maintains a naval presence in Maldives, at the request of the Maldives, since 2009.

Involvement of China in Maldives

- Two nations signed 12 pacts, including a free trade agreement (FTA) and endorsed China's ambitious Maritime Silk Road initiative. Maldives became the second country in South Asia, after Pakistan, to enter into an FTA with China.
- With China **owning 70 per cent of the country's debt**, the Maldives is now into **serious debt trap**.
- Maldives signed China's Belt and Road Initiative, changed laws to lease out several prime islands to China, and allowed Beijing to build an observation post in **Makunudhoo**, the westernmost atoll, not far from India.
- Chinese companies were given contracts for several infrastructure projects in the Maldives, including the recently inaugurated Sinamale Bridge linking Male to Hulhule Island, and a 1,000-apartment housing project on Hulhumale, a suburb that Beijing built on reclaimed land.

China's new type of colonialism

- China has been funding and implementing large infrastructure projects in countries around the world, in order to help align their interests with its own, gain a political foothold in strategic locations, and export its industrial surpluses.
- By keeping bidding on BRI projects closed and opaque, China often massively inflates their value, leaving countries struggling to repay their debts. Once countries become ensnared in China's debt traps, they can end up being forced into even worse deals to compensate their creditor for lack of repayment.
- **Sri Lanka** was compelled to transfer the Chinese-built strategic port of Hambantota to China on a 99-year, colonial-style lease, because it could longer afford its debt payments.

Other similar instances of backlash against China

- With China owning 70 per cent of the country's debt, the **Maldives** is now into serious debt trap. New elected president have asserted that they will review all infrastructure contracts awarded to China that were not commercially viable and lacked in transparency.
- **Malaysia** criticized China for using Malaysia's major infrastructure projects and difficult to repay loans to assert its influence over smaller countries. Malaysian President, who previously cleared the way for Chinese investment in Malaysia, ended his trip to Beijing by canceling Chinese projects worth almost \$23 billion.
- **Myanmar**, hoping to secure needed infrastructure without becoming caught up in a Chinese debt trap, has used the threat of cancellation to negotiate a reduction in the cost of its planned Kyaukpyu port from \$7.3 billion to \$1.3 billion.
- In **Pakistan**, which has long worked with China to contain India and is the largest recipient of BRI financing, the new government has sought to review or renegotiate projects in response to a worsening debt crisis.
- Countries as diverse as **Bangladesh, Hungary, and Tanzania** have also canceled or scaled back BRI projects.
- The president of **Nauru** the world's smallest republic, condemned China's "arrogant" presence in the South Pacific.
- Many countries have started imposing anti-dumping or punitive duties on Chinese goods. And as countries worry about China bending them to its will by luring them into debt traps, it is no longer smooth sailing for the BRI. **United States** escalated trade war with China.
- The **European Union** had filed a complaint with the World Trade Organization (WTO) about China's practices of forcing technology transfer as a condition of market access. Under WTO rules, countries may impose tariffs on subsidized goods from overseas that harm domestic industries.

2.7. COMPREHENSIVE NUCLEAR TEST BAN TREATY

Why in news?

UN chief Antonio Guterres appealed to eight nations, including India and the US, to ratify the Comprehensive Nuclear-Test-Ban Treaty (CTBT).

What is CTBT?

- It is a **multilateral treaty banning all nuclear explosions for both military and civilian purposes.**
- It was negotiated at the **Conference on Disarmament in Geneva** and adopted by the United Nations General Assembly. It was opened for signature on 24 September 1996.
- The CTBT with its 183 signatories and 163 ratifications is one of the **most widely supported arms-control treaties.**
- It can only enter into force after it is ratified by eight countries with nuclear technology capacity, namely **China, Egypt, India, Iran, Israel, North Korea, Pakistan and the United States.**
- Only North Korea, has broken the norms, which had led to condemnation from the Security Council and repeated imposition of sanctions.
- The Treaty establishes a **CTBT Organization (CTBTO)**, located in Vienna, to ensure the implementation of its provisions, including provisions for international verification measures.

How is it important?

- CTBT has an essential role within the **nuclear disarmament and non-proliferation regime.**
- By constraining the development and qualitative improvement of nuclear weapons, the treaty puts **a brake on the nuclear arms race and serves as a barrier against States** that might seek to develop, manufacture and acquire nuclear weapons in violation of their non-proliferation commitments.
- Nuclear testing has a **catastrophic impact on the environment, human health, food security and economic development.** When the Treaty enters into force it provides a **legally binding norm against nuclear testing.**

India's Stand on CTBT

India did not support the Comprehensive Nuclear Test Ban Treaty in 1996 and still does not due to following reasons:

- **Complete Nuclear Disarmament:** India's principled opposition drew from its emphasis on **universal and complete nuclear disarmament in a time-bound manner.** CTBT does not address complete disarmament.
- **Discriminatory in Nature:** UNSC permanent members have little marginal utility in testing further. They have already conducted nuclear tests and possess nuclear weapons. For India, CTBT would only act as hindrance for conducting nuclear test and developing their technology.
- **Entry into force clause:** Another major concern was Article XIV, the entry-into-force (EIF) clause, which India considered a violation of its right to voluntarily withhold participation in an international treaty. The treaty initially made ratification by states that were to be a part of the CTBT's International Monitoring System (IMS) mandatory for the treaty's EIF. Because of this, India withdrew its participation from the IMS.
- **Technological differences:** There is the possibility that those already possessing nuclear weapons can upgrade their arsenals through sub-critical and laboratory simulated testing which is not banned under CTBT.
- **Security threat:** India faces uncertain dangers from Pakistan, and China, which had conducted nuclear tests even while the CTBT was being negotiated. As party to the CTBT, India would be waiving the possibility of testing and developing its own nuclear weapons whereas China would be able to retain its arsenal as per the NPT. Pakistan has not signed this treaty whereas China has not ratified till now.

India's stand on other treaties

- India had played an important role in building international momentum for the **1963 Limited Test Ban Treaty**, which India joined. This treaty significantly reduced global levels of fallout, but did little to constrain the nuclear arms race.
- The Indo-US nuclear deal reversed the US ban and facilitated cooperation in the civil nuclear energy field. India reciprocated by committing to separate its civil and military facilities, **placing all its civil nuclear facilities under International Atomic Energy Agency (IAEA) safeguards**, working with the US for the conclusion of an Fissile Material Cut-off Treaty (FMCT) and continuing its voluntary moratorium on nuclear testing.
- India had ruled out the possibility of joining the **Non-Proliferation Treaty (NPT)** as a non-nuclear weapon state but it remains "committed" to a **unilateral voluntary moratorium on nuclear explosive testing.**
- India did not participate in the negotiations on a **Treaty on the Prohibition of Nuclear Weapons** which was concluded in New York on 7 July 2017 quoting that India maintains the **Geneva-based Conference on Disarmament (CD)** as a single multilateral disarmament negotiation forum.

- **Treaty on the Non-Proliferation of Nuclear Weapons (NPT) 1968:** Its objective is to prevent the spread of nuclear weapons and weapons technology, to promote cooperation in the peaceful uses of nuclear energy and to further the goal of achieving nuclear disarmament and general and complete disarmament. India is a non-signatory to this treaty.
- **Treaty on the Prohibition of Nuclear Weapons 2017:** It is the first legally binding international agreement that prohibits States Parties from developing, testing, producing, manufacturing, acquiring, possessing, or stockpiling nuclear weapons or other nuclear explosive devices.
- **Nuclear-Weapon-Free Zones (NWFZ):** It is a regional approach to strengthen global nuclear non-proliferation and disarmament norms and consolidate international efforts towards peace and security.

3.1. IL & FS CRISIS

Why in News?

Recently an infrastructure financing company, **Infrastructure Leasing & Financial Services (IL&FS)**, an NBFC, defaulted on their loan repayment.

Background

- **IL&FS Group** is a vast conglomerate with a **complex corporate structure** that funds infrastructure projects across the world's fastest-growing major economy like Chenani-Nashri road tunnel, India's longest and has raised billions of dollars from the country's corporate debt market.
- IL&FS is a **Systematically Important Non-Deposit Core Investment Company (CIC-ND-SI)** i.e. any crisis at IL&FS would not only impact equity and debt markets but could also stall several infrastructure projects of national importance.
- Many major corporates, banks, mutual funds, insurance companies, etc. such as LIC, HDFC and SBI have stakes in the IL&FS group.

Possible Reason for Default

- **Critical lapse in Corporate Governance**
Norms: as Risk Management Committee, constituted met only once between 2015 and 2018.
- **Shareholder Negligence:** Well-known institutions such as LIC, HDFC, etc. which were major shareholder in ILF&S are guilty of negligence. For example, HDFC had not nominated a director to the board of IL&FS since last year.
- **Asset-liability mismatch and weak corporate bond market:** IL&FS owns long-term infrastructure financed with short-term funding because long-term (tenure of more than 10 years) debt is not available in India. This resulted in defaulting in one of the short-term repayment obligation due to various reasons like:
 - **Slow pace of new infrastructure projects** in India, and some of IL&FS's own construction projects, including roads and ports, have faced **cost overruns** amid delays in land acquisition and approvals. Disputes over contracts have locked about Rs 9,000 crore of payments due from the government.
- **Lack of Effective Regulation:**
 - RBI which oversees NBFCs like IL&FS and the union finance ministry which oversees major shareholders like LIC, SBI, etc. are at fault here as the crisis was allowed to develop over a period of time.

Impact of Crisis

- **India's Lehman Brothers moment:** IL&FS debt papers enjoyed **highest safety status** by Credit rating Agency, for a long time on account of factors such as satisfactory liquidity conditions and the backing of major public sector units. However, current crisis reflects **Failure of Credit Rating Agencies**.
 - The lack of confidence in the credit ratings is in danger of undermining India's financial stability, leading to a drying up of credit lines for shadow lenders and wider concerns about the impact on the economy.

THE CRISIS

169 No. of cos in IL&FS group
₹ 1.15 lakh cr Assets



DEFUALTS ACROSS MULTIPLE INSTRUMENTS

Series of defaults by group firms in August and September on..

- Term deposits
- Short-term deposits
- Inter-corporate deposits
- Commercial paper
- Non-convertible debentures

WHAT WENT WRONG

- Borrowings mismanaged, rapid debt build-up
- Very High leverage, financial mismanagement
- Liquidity gap- liabilities may not have matching revenues
- Exaggerated intangible current assets of ₹20,000 cr
- Bulk of revenue in receivables, 50% locked up in litigation
- Sharp rise in bank deposits held in lien, up ₹ 1,681.59 cr in FY 18
- Negative cash flow from ops, ₹ 7,020 cr net outflow in FY 18

₹ 91,000 cr BORROWINGS



MANAGEMENT CULPABILITY

- Financial stress masked by misrepresentation
- Despite crisis, firm paid dividends, "huge managerial payouts"
- MCA finds serious corporate-related deficiencies
- SFIO probe already on into some entities

As per RBI, CIC-ND-SI is a Non-Banking Financial Company (NBFC)

- With asset size of Rs 100 crore and above.
- It holds not less than 90% of its net assets in the form of investment in equity shares, preference shares, bonds, debentures, debt or loans in group companies.
- Its investments in the equity shares (including instruments compulsorily convertible into equity shares within a period not exceeding 10 years from the date of issue) in group companies constitutes not less than 60% of its net assets.
- It does not trade in its investments in shares, bonds, debentures, debt or loans in group companies except through block sale for the purpose of dilution or disinvestment.
- It accepts public funds

Shadow Banking System

- **Shadow banking** is that part of the financial system where credit intermediation involving entities and activities remains outside the regular banking system. The term was coined by economist Paul McCulley in 2007.
- **Working structure:** They have a higher cost of funding. But the lack of regulatory oversight allows them to take on more risks than banks. So, they can cut corners and earn higher returns. They can also go bust more spectacularly.
- **Significance:** They provide a valuable alternative to bank funding and helps support real economic activity. It is also a welcome source of diversification of credit supply from the banking system, and provides healthy competition for banks.

- **Lack of Capital Expenditure:** Its impact may spill over into the wider infrastructure industry, pushing up funding costs and pulling government investment plans for achieving New India by 2022.
- **Impact on Stock Market:** It might witness significant repercussions, including widespread redemption pressures, sell-off in the debt market, liquidity crunch and possible cancellation of licences of as many as 1,500 smaller non-banking financial companies (NBFCs) due to lack of adequate capital.
- **Liquidity crisis:** There are concerns over short-term liquidity in the market for commercial papers raised by NBFCs.
- **Impact on Shadow Banking:** According to RBI, India has about 11,000 shadow financing companies, out of which 248 are systemically important non-deposit taking institutions, who will face greater regulatory scrutiny and short term liquidity crisis, which could impact the sustainability of many NBFC's.
- **Other cascading effects of IL&FS's defaults:** Rising borrowing costs, exacerbated by the turmoil in markets in recent days, will lead to a credit crunch in the sector.

Steps Taken by Government

- **Taking Managing Control:** Government superseded the IL&FS board under **section 241(2) of the Companies Act, 2013**, which enables supersession of a company's board to prevent it from further mismanagement in order to protect public interest. Its Implications are
 - **Increasing Confidence of Lenders** by giving them assurance that their outstanding loans to IL&FS will be repaid.
 - **Improving Financial Market Stability:** It effectively stops the spread of systemic instability in an inter-connected financial system, especially as panic had started spreading across the financial, money and capital markets.
 - It helps in restoring the confidence of the financial market and Ease of doing Business in India.
- Government has also ordered **Serious Fraud Investigation Office (SFIO)** to investigate into the affairs of crisis-hit IL & FS and its subsidiaries amid concerns over financial irregularities.

Way Forward

- **Short Term Measures** like finalization of a restructuring plan, identification and valuation of assets, sale of the assets and repayment of outstanding loans.
 - Government must arrange adequate liquidity for IL&FS to obviate future defaults and ensure smooth implementation of infrastructure projects.
- **Strengthening Corporate Governance norms** by implementing **Kotak panel recommendation** and incentivize boards to play a more effective role in supervising company executives.
- **Shareholders awareness:** Shareholders must be more actively involved in keeping tab on the key policy decisions of the companies.
- **Effective checks and balance system** at the firm level to check any discrepancies at initial level.
- **Leveraging National Financial Reporting Authority** for enforcement of auditing standards and ensuring the quality of audits to strengthen quality of audits and enhance investor & public confidence in financial disclosures of companies.
- **Creating an independent regulator for credit rating agencies**, to have rating actions in a proactive manner rather than a reactive manner.
 - Rating agencies also need better market intelligence and surveillance rather than depending upon historical data and some structure based on past estimates.

UDAY KOTAK RECOMMENDATIONS

A Securities and Exchange Board of India (SEBI) panel, headed by Uday Kotak, has recommended ways to improve governance of India firms. The suggestions span from the composition of the board and treatment of subsidiaries to audit evaluations. Here's a quick reckoner.



- **Deepening the debt markets:**
 - The Centre and the RBI should look at ways to provide access to infrastructure players like ILF&S to borrow long-term funds.
 - The successful resolution of issues of banks' non-performing assets (NPAs) through the Insolvency and Bankruptcy Code (IBC) can increase sources of long-term debt.
 - The Indian corporate bond market is currently skewed towards high-rated debt instruments (AA and AAA) as most regulators in India have set a minimum of 'AA' rating for bonds to be eligible for investment. In line with the budget announcement, the government should work with various regulators to allow increased investment in relatively lower-rated bonds.
- **Timely Project clearances:** Ensuring timely clearances, especially to infrastructural projects is a must to minimise cost inflation of these projects. Expanding the "Plug and Play" approach to other sectors can be a possible solution.
- **Improved Ratings Accuracy:**
 - Securities and Exchange Board of India (SEBI) should examine the process for issuing ratings for corporate bonds and figure out why the rating agencies did not spot early signs of the crisis.
 - There should not be undue importance on who is the promoter backing the company while providing ratings. Instead loan amount, asset quality, profitability, etc. should be basis for assigning rating to the company

3.2. BANK CONSOLIDATION

Why in News?

- The government has decided that Bank of Baroda, Vijaya Bank and Dena Bank shall be “**amalgated**” making the new entity **India’s third Largest Bank**.

Background

- Narasimham committee of 1991** had recommended a restructuring of Indian banks with 3-4 large banks that could be positioned as global banks and 8-10 smaller ones with a national footprint.
- The P J Nayak committee in 2014** suggested that government should privatise or merge some PSBs.
- In 2017, the government had approved the “**merger**” of SBI’s five associate banks and later of the Bharatiya Mahila Bank (BMB) with SBI.
- Last year, the Government had constituted **Alternative Mechanism Panel** headed by the Minister of Finance and Corporate Affairs, Arun Jaitley to look into merger proposals of public sector banks.
 - The proposals received from banks for in-principle approval to formulate schemes of amalgamation will be placed before the Alternative Mechanism.
 - A Report on the proposals cleared by Alternative Mechanism will be sent to the Cabinet every three months.
 - Alternative Mechanism may also direct banks to examine proposals for amalgamation.
 - Alternative Mechanism will receive inputs from Reserve Bank of India (RBI) before according in-principle approval.

Amalgamation vs Merger

- Amalgamation is the combination of one or more companies **into a new entity** (e.g. bank A and bank B combine to form a new bank C).
- In merger one company acquires the other companies. (e.g. bank B acquires bank C and D and eventually only bank B shall exist).

Arguments in favour of Consolidation

- Too many Public Sector Banks (PSBs):** Currently there are **21** PSBs in India which often cannibalise into each other’s businesses.
- Resolving the NPA issue:**
 - Reserve Bank of India expects the gross NPA ratio for state-owned banks to rise to 16.3% by March 2019 from 15.6% in March 2018.
 - The consolidation is being seen as a way out of the NPA issue through the “strong” banks absorbing the strain on the books of weaker banks.
- Increase in business:** Consolidation will lead to substantial rise in:
 - customer base
 - market reach
 - offering more services or products to customers
- Global banks:** The consolidation will help create a globally stronger and competitive financial institutions. Currently Indian banks are small when compared with their global peers.
- Cost cutting:** Consolidation can lead to reduced operating costs for public sector banks as:
 - All duplicate operations and redundancies are rationalised (e.g. shifting and closure of many overlapping branches especially in urban areas).
 - Excessive manpower can be shed off in the long run.
- Enhanced geographical reach:** For example, Vijaya Bank has strength in the South while Bank of Baroda and Dena Bank had a stronger base in Western India. That would mean wider access for both the proposed new entity and its customers.
- Greater capital and liquidity:**
 - Merger will lead to a bigger capital base and higher liquidity which will help in meeting the norms under BASEL III.
 - It will also reduce the government's burden of recapitalising the public sector banks time and again.
- Enhanced human resource:** Merger can lead to availability of a bigger scale of expertise and that helps in minimising the scope of inefficiency which is more common in small banks.

- **Employee welfare:**
 - The merger **will not cause any job loss** in any of these banks and no employee of the banks would have service conditions that are adverse to their present one.
 - The **disparity in wages** for bank staff members will get reduced and service conditions would become uniform.

Arguments against consolidation

- **Setback to corporate governance perspective:**
 - The merger sends out a poor signal of a dominant shareholder (the government) dictating decisions that impact the minority shareholders.
 - Forced mergers of the stronger banks with the weaker banks tend take a toll on the operations of the strong banks. For example: Bank of Baroda's shares took a nosedive in wake of the announcement.
- **Meaningless without implementing governance reforms:** The new entity will face similar problems unless significant reforms take place in the overall functioning of public sector banks. Merger could only give a temporary relief but not real remedies to problems like bad loans and bad governance in public sector banks.
- **Setback to financial inclusion:**
 - Consolidation may lead to large scale shutting down of overlapping branches of the entities being merged.
 - Many banks have a regional audience to cater to and merger destroys the idea of decentralisation.
- **Systemic risks:** There is a global consensus that banks that are “too big to fail” are sources of serious risk to financial stability and consolidation might lead to such a scenario.
- **Protests:** Addressing the concerns of unions and shareholders can prove to be a major roadblock.
- **Varying work culture:** Aligning contrasting HR practices will also pose a challenge to the new management.
- **Harmonization of Technology:** It is a big challenge as various banks are currently operating on different technology platforms.

Way Forward

- **Clear rationale:**
 - The consolidation process among banks should be driven primarily by synergies, efficiency, cost saving, and economies of scale.
 - It is essential to evaluate the merger of banks by assessing the benefits such as cost rationalization, additional business, etc. against the likely future costs.
- **Non-Imposition:**
 - Mergers must happen on commercial considerations and must not be politically imposed.
 - While PSBs are promoted by the government, they are run by their respective professional boards, which should take such decisions.
- **Twin-fold Governance reforms:**
 - Independence from political interference
 - More regulatory power to RBI over PSBs
- **Creating a healthy entity:** It should be ensured that these mergers do not create an entity that is weaker than the original pre-merger strong bank.
- **Training for HR:** Human resource from the smaller bank should undergo training programs to get acquainted with the new processes, technology and environment.
- **Allow “non risky” failures:** Failures are the essence of free market so sometimes we also need measures that allow banks to fail safely without causing systemic shocks.

Recent banking reforms/steps taken:

- The Government in 2016 set up an autonomous body called **Banks Board Bureau (BBB)** to recommend for selection of heads of PSBs and Financial Institutions and help Banks in developing strategies and capital raising plans.
- The **Insolvency and Bankruptcy Code (IBC)** has made it easier for banks to recover through liquidation of assets.
- The government committed to Rs. 2.11 lakh crores **capital infusion** in PSBs.
- **EASE - Enhanced Access and Service Excellence:** It is a reform agenda focusing on six themes of customer responsiveness, responsible banking, credit off take, PSBs as Udyami Mitra, deepening financial inclusion & digitalisation and developing personnel for brand PSB.
- RBI has introduced **prompt corrective action (PCA)** framework as a measure to check banks' financial health. Under the PCA, banks are prohibited from distributing dividends and remitting profits, expanding their branch networks, maintaining higher provisions, etc.
- The government had formed the **Sunil Mehta Committee** to look into the faster resolution of stressed assets. It has suggested five-pronged strategy to resolve stressed assets called Project **Sashakt**.

3.3. PAYMENTS REGULATOR

Why in News?

Recently, Inter-Ministerial Committee headed by Subhash Chandra Garg submitted **draft Payment and Settlement System Bill, 2018**, which seeks to setup independent **Payments Regulatory Board (PRB)**.

Background

- **Growing Digital Payment:** According to Google and Boston Consulting Group (BCG) titled Digital Payments 2020 study, **digital payments in India will exceed \$500 billion by 2020**, up from \$50 billion in 2016, which required a comprehensive review of payments sector with an objective to promote access and competition in the payments industry.
- **Nachiket Mor Committee Report (2013)** observed that despite significant progress in bank-led payment systems, there remained a vast gap in the availability of basic payment services for small business, and low-income households.
- **Watal committee (2016)** recommended constituting a **Payment Regulatory Board (independent of RBI)** to promote competition and innovation in the payment ecosystem in India.
- **Budget 2017**, proposed to create a **Payments Regulatory Board** in the Reserve Bank of India by replacing the existing **Board for Regulation and Supervision of Payment and Settlement Systems**, which overlooks the payment ecosystem in India.

Provision of Payment and Settlement System Bill, 2018

- **Aim:** Draft bill seeks to consolidate laws relating to payments.
- **Setting up Independent Payments Regulatory Board (PRB):** Bill seeks changes to the composition of the PRB and recommended that the chairperson appointed by the government in consultation with RBI.

- **Objectives for the PRB:**
 - ✓ **Consumer protection:** (i) Protect the interest of consumers, (ii) ensure safety and soundness of the payment systems, and (iii) create trust and confidence in the payment systems.
 - ✓ **Systemic stability and resilience:** Control of systemic risk and systemic efficiency, stability and resilience.
 - ✓ **Competition and innovation:** To enable, in the interest of consumers, (i) system participants to access payment systems based on objective, ownership neutral and proportionate standards, (ii) interoperability among system participants and among payment systems, (iii) payments systems and payment services to be developed and operated in a manner that promotes their ease of use, and (iv) improvements in the quality, efficiency and economy of payment systems and payment services.

| Payment Regulator | | |
|--|---|---|
| Where The Committee Differs With The Finance Act, 2017 | | |
| | Finance Act, 2017 | Committee |
| Chairperson | ► Governor of RBI, Ex-Officio | ► Person appointed by govt in consultation with RBI |
| RBI nominees | ► Deputy Guv of RBI in charge of payment & Settlement Systems RBI officer to be nominated by Central Board of RBI | ► Deputy chairman, nominated by Central Board of RBI, not below rank of executive director ► Two whole-time members, appointed by Central Board of RBI |
| Govt nominee | ► 3 persons to be nominated by Centre | ► 1 nominated by centre, not below joint secy; 2 whole-time members |
| Total members | 6 | 7 |

- **Defining Role of RBI:** Bill provides role of RBI as an infrastructure institution in relation to its function of providing settlement system and payment system.
- **Parity Between Banks and Non-Banks:** It provides that the authorization criteria should be risk based and ownership neutral for different classes of payment systems.

Payment and Settlement Systems Act, 2007.

- It was enacted to regulate and supervise payment systems in India.
- **Empower RBI:** Act provide necessary statutory backing to the Reserve Bank of India for undertaking the Oversight function over the payment and settlement systems in the country. These systems include inter-bank transfers such as the National Electronics Funds Transfer (NEFT) system, the Real Time Gross Settlement (RTGS) System, ATMs, credit cards, etc.

Board for Regulation and Supervision of Payment and Settlement Systems

- It's a **statutory body** as per Payment and Settlement Systems Act 2007.
- It is the **highest policy making** body on payment systems.
- It is empowered to authorize, prescribe policies and set standards to regulate and supervise all the payment and settlement systems in the country.
- The **Department of Payment and Settlement Systems** of the RBI serves as the Secretariat to the Board and executes its directions.

Significance

- **Shifting of Power from RBI to PRB:** Bill proposes a major change in the payment industry which seems necessary because it was observed that central banks deal with matters of systematic importance only and their main aim is to promote financial stability.
- **Improving Efficiency** as PRB will only issue two types of instruments, regulations and orders, thereby, reducing multiplicity of instruments.
- **Restoring Requisite RBI Power:** Bill provides the RBI with the powers to make a reference to the PRB to consider any matter, which in the opinion of the RBI, was important in the context of monetary policy.
- **Improving Confidence:** An independent regulator will instill confidence among users and investors.
- **Improving Financial Inclusion:** A robust Payment regulator will boost digital transactions in India, which is currently close to 90 million.

Challenges

- **Another Bureaucratic Level:** Board could be made a scapegoat for policy failures in payments and settlement, by interfering in monitoring and regulatory function.
- **Crypto currency transactions** still function under grey area and haven't been brought under the legal purview.
- **Against the Majority Views:** Independent PRB is in contrast with the view of RBI, which wants the chairperson of the new regulator to be from the central bank with a casting vote. It also sidelined Watal Panel recommendation which had pitched for establishing PRB within the structure of RBI with a majority of non-RBI members nominated by the centre.
- **Cyber Breach Cost:** Cyber attacks cost India an estimated \$4 billion annually, and could rise to USD 20 billion by 2025, with the digitisation of payments presenting new challenges for cybersecurity.

Way Forward

- The **Financial Sector Legislative Reforms Commission (FSLRC)** recommended draft **Indian Financial Code** which seeks to move away from the current sector-wise regulation to a system where the RBI regulates the banking and payments system and a Unified Financial Agency subsumes existing regulators like SEBI, IRDA, PFRDA and FMC, to regulate the rest of the financial markets.
- FSLRC also envisages a **unified Financial Sector Appellate Tribunal (FSAT)**, subsuming the existing Securities Appellate Tribunal (SAT), to hear all appeals in finance.

► Achieving Payment & Settlement System- Vision 2018:

PAYMENT AND SETTLEMENT SYSTEMS IN INDIA: VISION-2018

Building best of class payment and settlement systems for a "less-cash" India through responsive regulation, robust infrastructure, effective supervision and customer centricity

STRATEGIC INITIATIVES

RESPONSIVE REGULATION

- 1 Orienting policy with emerging developments and innovations
 - Framing new policy:
 - Policy framework for CCPs
 - Exit policy for authorised entities
 - Framework for imposition of penalty
 - Regulation of payment gateway service providers and payment aggregators
 - Monitoring framework for new technologies
 - Review of existing policies / guidelines in following areas:
 - Prepaid payment instruments (PPIs)
 - Mobile banking
 - White Label ATMs (WLA)
 - Nodal account for Intermediaries
- 2 Setting up Payments System Advisory Council (PSAC) of industry and Government representatives/ experts to strengthen the consultative process
- 3 Amendments to PSS Act
 - Improved governance of Payment System Operator (PSO)
 - Resolution of Central Counter Party (CCP)/ Financial Market Infrastructure (FMI)
 - Non-Registration of charge on collateral with CCPs
- 4 Strengthen Financial stability
 - Encouraging adoption of Legal Entity Identifier (LEI) by financial entities
 - Settlement of funds leg of financial transactions in central bank money

ROBUST INFRASTRUCTURE

- 1 Facilitating faster payment services
 - National Electronic Funds Transfer (NEFT) -more frequent settlement cycles and exploring feasibility of adoption of ISO messaging format
 - Mobile Banking -
 - Enhancing options for customer registration for mobile banking services
 - Enabling wider access to mobile banking services in multiple languages for non-smartphone users
 - Encourage innovative mobile based payment solutions
- 2 Improving Accessibility
 - Increasing acceptance infrastructure
 - Implementation of the Bharat Bill Payment System (BBPS)
 - Implementation of the Trade Receivables Discounting System (TReDS)
- 3 Promoting Interoperability
 - Unified Payment Interface (UPI) ► Toll Collection
 - Payments for Mass Transit systems
- 4 Enhancing Safety and Security
 - Migration to EMV Chip and Pin cards
 - EMV card processing at ATM based on chip data
 - Security of ATM transactions by holistically strengthening the safety and security of ATM infrastructure
 - Examining feasibility of Aadhaar-based authentication
- 5 Cheque clearing systems
 - Endeavour to eliminate Paper-to-Follow arrangements for all cheques issued by State Governments
 - Promoting use of positive pay mechanism, national archive on cheque images, etc.
 - Encouraging complete migration of cheque to CTS-2010 standards

EFFECTIVE SUPERVISION

- 1 Assessment of resilience of payment and settlement infrastructure including FMIs and System-Wide Important Payment Systems (SWIPS)
 - Draft framework for testing resilience
 - Resilience of communication / messaging infrastructure
 - Resilience of IT systems of PSOs
 - Building capability to process transactions of one system in another system
- 2 Design an Oversight framework
 - On the basis of proportionality of risk posed by PSOs
 - For large-value payment systems, retail payment systems (including IS audit), BBPS and TReDS.
- 3 Strengthening reporting framework including fraud monitoring
 - Move the reporting of periodic returns by payments systems operators to XBRL platform
 - Draw a framework for collection of data on frauds in payment systems
- 4 Analysing data and publishing reports
 - Oversight report on select retail and large value systems
 - Analysis of Payment System related data within the Bank

CUSTOMER CENTRICITY

- 1 Strengthening customer grievance redressal mechanism
 - Frame necessary guidelines to ensure enhanced customer grievance redressal mechanism in authorized payment systems
 - Require payment systems operators to adequately train front-office staff and agents
- 2 Enhancing customer education and awareness
 - Electronic Banking Awareness And Training (e-BATT)
 - Framework requiring PSOs to disclose fees & terms & conditions of their service
- 3 Protection of customer interest
 - Encourage PSOs to develop robust fraud and risk monitoring systems
 - Endeavour to build a framework to limit customer liability for unauthorised electronic transactions
- 4 Positive confirmation
 - Incorporate the feature of sending positive confirmation of payment to the remitter in Real Time Gross Settlement (RTGS) system
 - Strengthen positive confirmation feature of NEFT
- 5 Conducting customer surveys
 - Engage with various stakeholders / professionals to conduct user / customer surveys on specific aspects of payment systems

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3.4. INDIA POST PAYMENTS BANK (IPPB)

Why in News?

Prime Minister on 1st September **launched the India Post Payments Bank (IPPB)** that offers doorstep banking to customers.

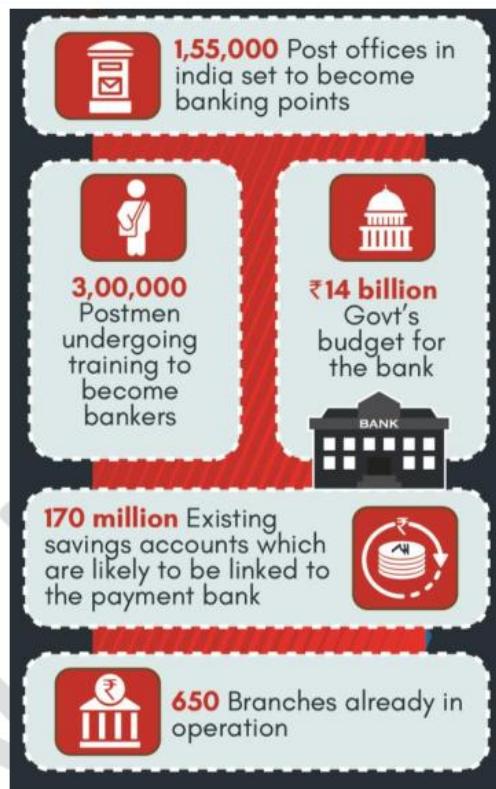
About IPPB

- India Post Payments Bank has been incorporated as a **public sector company under the department of posts, with 100% government equity** and is governed by the Reserve Bank of India.
- It **started operations on 30 January, 2017**, by opening two pilot branches one in Jaipur and the other in Ranchi.
- It will focus on providing banking and financial services to people in rural areas, by **linking all the 1.55 lakh post office branches with India Post Payments Bank** services by the end of 2018. This will **create the country's largest banking network** with a direct presence at the village level.
- It will offer a **range of products**—savings and current accounts, money transfer, direct benefit transfer, bill and utility payments, enterprise and merchant payments. These products, and services, will be offered across multiple channels (counter services, micro-ATM, mobile banking app, SMS and IVR).
 - It will also provide access to third-party financial services such as **insurance, mutual funds, pension, credit products and forex**.
 - It will not offer any ATM debit card. Instead, it will provide its customers a **QR Code-based biometric card**. The card will have the customer's account number embedded and the customer does not have to remember his/her account number to access the account.
 - IPPB has also partnered with different financial organisations to provide loans, investments and insurance products.

Analysis

There are various issues and challenges facing the IPPB, viz-

- **Charges and restrictions:** There are 80 different charges and restrictions (including charges to get cash delivered at doorstep, transactions, withdrawals and deposits, etc) which could prove to be challenges in its objective of financial inclusion.
- **Limited manpower in post offices-** Clients might find it difficult to withdraw cash from rural post offices because these are managed by one or two people, who are unlikely to have a lot of money with them.
- **Limited accessibility-** IPPB is **unable to offer ATM cards yet**. As a result clients can't use the united payments interface service.
- **Technical Issues-** It's necessary that the customer's fingerprints match the UIDAI database for each transaction. The problem is that the UIDAI told the Supreme Court that it can't ensure 100 per cent biometric matching.



How IPPB is different from traditional banks?

- A payments bank is a **differentiated bank**, offering a limited range of products.
- It can **accept deposits of up to ₹ 1 lakh per customer**.
- Unlike traditional banks, it **cannot issue loans and credit cards**.
- It will offer **three types of savings accounts**—regular, digital and basic—at an interest rate of 4% per annum.
- It will provide **doorstep banking facility** at a charge of ₹15-35 per transaction. The limit for doorstep banking is ₹ 10,000.
- **Other payments banks** that have started operations are Airtel Payments Bank Ltd, Paytm Payments Bank Ltd and Fino Payments Bank Ltd.

- **Limited appeal- For Urban customers** who have easy access to private banks offering purely digital accounts with more services, interest rates of up to 6 per cent and latest technologies like UPI.
 - Even in rural areas, it is unlikely to make much sense since Jan Dhan Yojana has already provided zero balance bank accounts with RuPay debit cards with full-scale banks.
- **Bad health of postal department-** Department of posts isn't in good health as its deficit doubled in the year 2016-17 and only 55 post offices have been added in the country in the last five years.
- **Competition with Private players-** IPPB is also likely to face stiff competition from private companies, which are generally nimbler in adapting to business realities and far more customer-friendly compared to the government-owned ones.

However, despite these challenges there is also a need to understand various advantages of establishing IPPB-

- Department of Posts and IPPB will work in tandem to take the benefits of government schemes and financial services that are not easily available in rural areas to customers across the country and to the marginalized population in urban and rural areas alike. The objective of IPPB will be public service rather than promoting commercial interests.
- While many other banks and financial institutions are working on the same theme, the USP of IPPB will be its ability to ease access and handhold the adoption of new age banking and payments instruments among citizen of all walks of life through the delivery by postmen and Grameen Dak sevaks, savings agents and other franchisees who will take banking to door steps. IPPB thus aspires to the most accessible, affordable and trusted bank for the common man with the motto - "**No customer is too small, no transaction too insignificant, and no deposit too little**".

If it succeeds, the new payments bank could usher in a new era of rapid financial inclusion across rural India.

Other initiatives taken for promoting Financial Inclusion in the country

- Pradhan Mantri Jan-Dhan Yojana
- Relaxation on Know Your Customer (**KYC norms**).
- **Engaging business correspondents (BCs)** as intermediaries for providing financial and banking services.
- Opening of bank branches in unbanked rural centres.

3.5. REINING IN CAD AND RUPEE

Why in News?

To contain the widening current account deficit (CAD) and check the fall of the rupee, the government recently announced specific steps to attract dollars and address volatility in the financial markets.

Background

- The recent fall in the value of Rupee has been mainly caused by pulling out of Foreign Portfolio Investors (FPIs) and decline in demands of Indian exports, along with the rising crude prices, fears of an escalating trade war and higher US interest rates.
- India's CAD jumped to 2.4 per cent of Gross Domestic Product in the first quarter of 2018-19, from 1.9 per cent in March 2018.
- Data shows India's foreign exchange reserves have been falling steadily over the past five months.

Recent Steps taken to attract dollars

- Enabling more companies to raise External Commercial Borrowings (ECBs).
- Manufacturing firms can get ECBs up to \$50 m with minimum maturity of 1 year as compared to earlier three.
- Removal of exposure limit of 20% of FPI's corporate bond portfolio to a single corporate group.
- Masala bonds issued in 2018-19 exempt from withholding tax.
- Easing of curbs on marketing, underwriting of Masala bonds.

Way Forward

- Until the RBI can rein in domestic inflation and the government can take steps to boost exports and curb imports, emergency measures like the issuance of NRI bonds can only offer temporary respite to the rupee.
- The government will also take steps to cut imports of non-essential items such as steel, furniture, etc. and to boost exports.
- The government is also looking to expand the phased manufacturing plan to include some sections of the consumer durables industry.

(Note- Please refer to August 2018 Current Affairs 'Falling Rupee')

About Masala Bonds:

Masala bonds are rupee-denominated debt securities issued outside India by Indian companies.

The bonds are directly pegged to the Indian currency. So, investors directly take the currency risk or exchange rate risks.

External Commercial Borrowings

It is the financial instrument used to borrow money from the foreign sources of financing to invest in the commercial activities of the domestic country. Simply, borrowing money from the non-resident lenders and investing it in the commercial activities of India is called as external commercial borrowings.

Withholding Tax

It is an amount that an employer withholds from employees' wages and pays directly to the government. The amount withheld is a credit against the income taxes the employee must pay during the year. It also is a tax levied on income (interest and dividends) from securities owned by a non-resident as well as other income paid to nonresidents of a country.

3.6. PRADHAN MANTRI JAN DHAN YOJANA

Why in News?

The government decided to make the Pradhan Mantri Jan Dhan Yojana (PMJDY) an open-ended scheme, meaning that it will continue indefinitely.

Pradhan Mantri Jan Dhan Yojana

- It is a **financial inclusion program** of Government of India, that aims to expand and make affordable access to financial services such as bank accounts, remittances, credit, insurance and pensions.
- It focuses on **coverage of households** as against the earlier plan which focused on coverage of villages. It focuses on **coverage of rural as well as urban areas**. Any individual above the age of 10 years can open BSBDA Account.
- The plan envisages **universal access to banking facilities** with at least one basic banking account for every household, financial literacy, access to credit, insurance and pension facility. In addition, the beneficiaries would get RuPay Debit card having inbuilt accident insurance cover of Rs. 1 lakh.
- The plan also envisages **channelling all Government benefits** (from Centre / State / Local Body) to the beneficiary's accounts and pushing the Direct Benefits Transfer (DBT) scheme of the Union Government. The technological issues like poor connectivity, on-line transactions will be addressed.

New incentives

- The overdraft facility has been doubled from Rs. 5,000 to Rs. 10,000.
- There will be no conditions attached for over-draft of up to Rs 2,000. Also, the upper age limit for availing the facility has been hiked to 65 from the earlier 60 years.
- Accidental insurance cover for new RuPay Cardholders has been raised from Rs 1 lakh to Rs 2 lakh.

Significance

- In spite of a strong position on world economic map India suffers from **the problem of poverty and poor financial inclusiveness**. **Census, 2011** estimates that **only 58.7% of the households have access to banking services**.
- Poor households in India, in the absence of access to formal credit, have to deal with moneylenders who charge exorbitant rates of interest. **Household Survey on India's Citizen Environment and Consumer Economy, 2016**, shows that within the poorest section of the population two in three taking credit from informal sources.
- Though access **to formal financial institutions** has improved over time but still thousands of villages not have a bank branch and **less than 10 percent of all commercial bank credit goes to rural area** which is the dwelling area for around 70 percent of the total population of India.

Achievements

- **Reducing Percentage of Zero Balance Accounts:** Share of **zero-balance accounts** which indicates **lack of activity** has fallen from 67% of the 125.47 million Jan Dhan Accounts in 2015 to only 28.88% of the 210 million Jan Dhan Accounts in 2016.
- **Rising Deposits in Accounts:** From 2016-17 the total deposits in these accounts has increased more than thrice. This shows the build-up of confidence which the government has succeeded to develop among the poor.
- **Plugging Leakages from Subsidy:** According to the **Economic Survey for 2015-16** leakages in LPG subsidy transfers **fell 24%** and the exclusion of beneficiaries had been greatly reduced, due to forced banking infrastructure created by Jan Dhan Accounts, Aadhaar and Mobile networks, the combination named as **JAM trinity**.

Challenges

- **Internet Connectivity Problem:** The inadequate infrastructure base for internet facilities basically in tribal and hilly areas making it difficult for **Business Correspondents** to deliver the required basic banking services
- **Diversion of Funds for Overdraft Facility:** The overdraft facility that the Jan Dhan scheme commits could be valuable for the poor but clarity has still not emerged on where the funds would be diverted from to finance it.
- **Increasing Cost of Business Correspondents:** If these accounts have to be functional and not remain dormant then the density of banking correspondent has to be increased, which will increase the cost of delivering the banking services.
- **Managing Multiple Saving Bank Accounts:** Many of the individuals who already have savings bank accounts in other banks opened account under PMJDY for benefiting from the **Rs. 1 Lakh accident insurance and overdraft**. As per norms PMJDY is only for those who do not have any bank account either in public or private sector banking setup
- **Tackling Unaccounted Money Deposited During Notebandi:** After the announcement of Demonetization total deposits in 255 million Jan Dhan accounts have increased to Rs 642521 million by November 2016.

Way forward

- Launching **massive campaign programmes** among the poor households and also focus on improving the level of **financial literacy and education** that can help them recognize the benefits they can avail under the scheme and the responsibilities associated with it.
- The **network of post offices** which spread across the nation even in the remotest areas can be utilised for effective implementation of the Jan Dhan Yojana. Introduction of **Indian Post Payment Banks** is a way forward.
- The policy focus should shift from the quantity of inclusion to the **quality of inclusion**. The measure of success of the scheme should include clearly-defined targets for usage and transactions.
- The trust mechanism should be improved between people and bank officials as there seems to be **lack of trust in banking correspondents** due to which borrowing from money lenders is still prevalent.
- It is recommended that **internet connectivity and speed** should be increased in tribal and hilly areas so that the confidence and ease of doing banking transactions can be entertained.

3.7. PRADHAN MANTRI ANNADATA AAY SANRAKSHAN ABHIYAN (PM-AASHA)

Why in News?

Recently, the Union Cabinet approved a new umbrella scheme – ‘Pradhan Mantri Annadata Aay SanraksHan Abhiyan’ (PM-AASHA).

Background

- Minimum Support Price (**MSP**) system suffers from various shortfalls such as limited geographical reach and crop coverage (for instance it excludes oilseeds). It works well only where there was direct procurement by industries. Also, prices of key agricultural commodities have fallen below their MSP due to which there is increasing farmer unrest across the country.
- PM-AASHA scheme thus aims to plug the gaps in procurement system, address issues in MSP system and give better returns to farmers.

About the scheme

It has **three components** complementing the existing schemes of the Department of Food and Public Distribution for procurement of paddy, wheat and other cereals and coarse grains where procurement takes place at MSP:

- **Price Support Scheme (PSS):** Under this, physical procurement of pulses, oilseeds and copra will be done by Central Nodal Agencies. Besides National Agricultural Cooperative Marketing Federation of India Ltd (NAFED) FCI will also take up procurement of crops under PSS. The expenditure and losses due to procurement would be borne by the Centre.
- **Price Deficiency Payment Scheme (PDPS):** This will cover all oilseeds for which MSP is notified and Centre will pay the difference between the MSP and actual selling/ model price to the farmer directly into his bank account. Farmers who sell their crops in recognized mandis within the notified period can benefit from it.
- **Pilot of Private Procurement and Stockiest Scheme (PPSS):** In the case of oilseeds, the States will have the option to roll out PPSS in select districts where a private player can procure crops at MSP when market price drop below MSP. The private player will then be compensated through a service charge up to a maximum of 15% of the MSP of the crop.

Significance of the Scheme

- **An innovative MSP-plus approach to the problem of non-remunerative prices:** The three different components of the scheme will cover gaps in the procurement and compensation mechanism for crops, thus ensuring remunerative prices for farmers and help reviving rural economy.
- **Ensure crop diversification and reduce stress on soil and water:** Unlike the current system where farmers repeatedly go for the few crops, such as paddy, wheat and sugarcane, the new scheme would ensure crop diversification and reduce stress on soil and water.
- **Savings for the Centre:** Under the current physical procurement, government agencies end up stockpiling food grains leading to high storage costs and significant wastage and leakages. This would be addressed in the new scheme.
- **Better translation of increased MSP to farmer's income:** Government has recently increased the MSP of Kharif crops by following the principle of 1.5 times the cost of production, which will get translated to increased farmer's income by way of robust procurement mechanism in coordination with State Governments.
- **Increased financial provisions:** the centre has made a provision of Rs. 16,550 Crore as a bank guarantee for central agencies to directly procure from farmers under PSS, while budgetary allocations for PM-AASHA have been raised to Rs. 15,053 Crore.
- **It is a significant step towards enhancing productivity,** reducing the cost of cultivation and strengthening post-harvest management, including market structure.

Challenges

- **Agricultural markets must function transparently and government must take steps to break the traders' cartel:** Experience of Madhya Pradesh which implemented the PDPS under Bhavantar Bhugtaan Yojana revealed that the traders plotted with each other and depressed the prices at mandis. They forced farmers to sell at lower prices and pocketed the compensation from the government.
- **Small and marginal farmers face double burden of lowered price and no compensation:** Many small and marginal farmers were unable to sell their produce under Bhavantar scheme due to double burden of lowered price and no compensation. Government must come up with mechanisms to provide income transfer to farmers.

- **Providing funds for PSS would be a key challenge for Centre** as State Governments consider it financially burdensome. If all states apply to NAFED/FCI for procurement of oilseeds or pulses, the agencies would fall short of funds.
- **Only 25% of the marketable surplus would be procured under the scheme:** Instead of just 25% procurement, the Commission for Agricultural Costs and Prices (CACP) must be redesigned and renamed to 'Commission for Farmers' income and Welfare' with a mandate to work out the minimum living income for a family and clearly defining means to provide it.
- **Warehousing and storage infrastructure shortage not addressed:** Many States such as Bihar, Jharkhand, West Bengal and almost entire North-East are unlikely to procure a substantial quantity of paddy at MSP due to weak financial resources and infrastructure constraints of the organizations responsible for paddy procurement.
- States would also find it hard to implement the scheme from the current Kharif marketing season which begins soon.

Way Forward

- **E-NAM and inter-market competition must be promoted:** Centre must break the trader lobbies by widening the competition by inter-linking mandis, and States must proactively undertake regulatory reforms. Also, a robust **pro-farmer export policy** must be considered. Simultaneously, **market reforms** including Model Agricultural Produce and Livestock Marketing Act, 2017 and Model Contract Farming and Services Act, 2018 should also be replicated by all the State Governments.
- Successful implementation and effective private participation is the key to overall success of the scheme. Guidelines for private participation in consultation with state governments must be formed.

3.8. DAIRY PROCESSING & INFRASTRUCTURE DEVELOPMENT FUND

Why in News?

The Cabinet Committee on Economic Affairs has approved a **Dairy Processing & Infrastructure Development Fund** (DIDF) with an outlay of Rs 10,881 crore during the period from 2017-18 to 2028-29.

Background

- Large number of dairy processing plants with India's Dairy Cooperatives were commissioned during **Operation Flood** which ended in 1996.
- Majority of these plants have never been expanded or modernised thereafter. These plants are operating with old & obsolete technologies, which may not be energy efficient.
- In order to improve efficiencies as well as increase production of products with higher value addition, Government of India had announced creation of DIDF in the Union Budget of 2017-18.

About the Fund

- **Objectives:**
 - It will focus on building an **efficient milk procurement system** by setting up of chilling infrastructure & installation of electronic milk adulteration testing equipment.
 - Creation/modernization/expansion of **processing infrastructure and manufacturing faculties** for Value Added Products for the Milk Unions/ Milk Producer Companies.
- **Management:**
 - The project will be implemented by **National Dairy Development Board (NDDB)** and **National Dairy Development Cooperation (NCDC)** directly through the End Borrowers such as Milk Unions, State Dairy Federations, Milk Producer Companies etc.
- **Funding:**
 - The fund will be used to **provide loan for building an efficient milk procurement system** and other processing infrastructure. The end borrowers will get the loan @ 6.5% per annum. The period of repayment will be 10 years with initial two years moratorium.
 - Under the DIDF, **Rs 8,004 crore loan will be provided by NABARD** to the NDDB and the NCDC. The remaining amount will be the contribution by end-borrowers, the NDDB and the NCDC, and by the agriculture ministry towards interest subvention for the next 10 years.

Apart from benefiting the farmers the fund is expected to create employment in various regions of the country.

Operation Flood

- A project of India's National Dairy Development Board (NDDB), it was launched in 1970 as the world's biggest dairy development programme, also responsible for **white revolution in the country**.
- It transformed India from a milk-deficient nation into the world's largest milk producer, surpassing the USA in 1998, with about 17 percent of global output in 2010-11.
- In 30 years it doubled milk available per person, and made dairy farming India's largest self-sustainable rural employment generator.
- Its major objectives included:
 - Increase milk production
 - Augment rural incomes
 - Fair prices for consumers

3.9. MULTIDIMENSIONAL POVERTY INDEX-2018

Why in news?

The 2018 global Multidimensional Poverty Index was released by the United Nations Development Programme (UNDP) and the Oxford Poverty and Human Development Initiative (OPHI).

Key findings of MPI 2018

The global Multidimensional Poverty Index (MPI)-2018 covers 105 countries in total, which are home to 75 per cent of the world's population, or 5.7 billion people.

- A total of **1.34 billion people from 105 countries are multidimensionally poor** i.e. 23.3% of the people living in these countries. They are deprived in at least one-third of overlapping deprivations in health, education, and living standards, lacking such things as clean water, sanitation, adequate nutrition, or primary education.
- 83% of multidimensionally poor people (more than 1.1 billion people) live in either Sub-Saharan Africa or South Asia.
- **Two-thirds of all MPI poor people** (nearly 892 million) live in middle-income countries.
- Multidimensional poverty is much **more intense in rural areas than urban areas**; globally there are 1.1 billion people living in multidimensional poverty in rural areas, compared to 0.2 billion people living in multidimensional poverty in urban areas.
- About 612 million people – **46% of those who are multidimensionally poor – live in severe poverty**, that is, they are deprived in at least half of the weighted indicators in health, education, and living standards. Sub-Saharan Africa accounts for 56% of world's severely poor.
- In India, 271 million people moved out of poverty between 2005-06 and 2015-16, but the country still has the **largest number of people living in multidimensional poverty in the world** (364 million people). Even so, India has cut its poverty rate from 55% to 28% in ten years.
- After India, the countries with the largest number of people living in multidimensional poverty are Nigeria (97 million), Ethiopia (86 million), Pakistan (85 million), and Bangladesh (67 million).

What is the global MPI?

- The global Multidimensional Poverty Index (MPI) is an **international measure of acute poverty covering over 100 developing countries**. It complements traditional income-based poverty measures by capturing the severe deprivations that each person faces at the same time with respect to **education, health and living standards**.
- The **MPI measures multiple deprivations in the same households** in education, health and living standards and **10 indicators**, namely nutrition, child mortality, years of

The Oxford Poverty and Human Development Initiative (OPHI) is an economic research centre within the Oxford Department of International Development at the University of Oxford.

- OPHI aims to build and advance a more systematic methodological and economic framework for reducing multidimensional poverty, grounded in people's experiences and values. OPHI works towards this by:
 - Broadening poverty measurement.
 - Improving data on poverty
 - Building capacity
 - Impacting policy

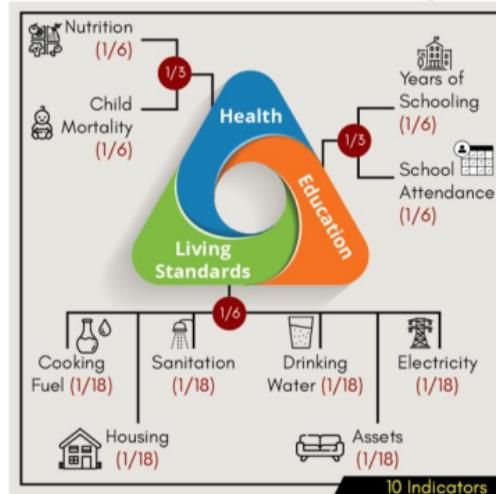
OPHI's work is grounded in **Amartya Sen's capability approach**. OPHI works to implement this approach by creating real tools that inform policies to reduce poverty.

The MPI measures

- **Incidence of poverty:** the proportion of the population who are poor according to the MPI (those who are deprived in at least one third of the weighted indicators).
- **Average intensity of poverty:** the average share of deprivations people experience at the same time.
- **MPI value:** The MPI value, which ranges from zero to one, is calculated by multiplying the incidence of poverty by the average intensity of poverty. It shows the proportion of deprivations that a countries' poor people experience out of the total possible deprivations that would be experienced if every person in the society were poor and deprived in every indicator.

- **56% of world's severely poor.**
- **In India, 271 million people moved out of poverty between 2005-06 and 2015-16, but the country still has the largest number of people living in multidimensional poverty in the world** (364 million people). Even so, India has cut its poverty rate from 55% to 28% in ten years.
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3 Dimensions of Poverty



- schooling, school attendance, sanitation, cooking fuel, drinking water, electricity, housing and assets.
- A person is identified as multidimensionally poor (or 'MPI poor') if deprived in at least one third of the dimensions. The MPI is calculated by multiplying the incidence of poverty (the percentage of people identified as MPI poor) by the average intensity of poverty across the poor. So, it reflects both the share of people in poverty and the degree to which they are deprived.
- The global MPI was developed by OPHI with the UNDP for inclusion in UNDP's flagship Human Development Report (HDR) in 2010. It has been published in the HDR ever since.

How MPI is better than Income Poverty?

- As per World Bank, **international poverty line is currently valued at \$1.90** in terms of 2011 purchasing power parity. Income allows people to meet basic needs but at a practical level we find income does not always provide a sufficient representation of poverty.
 - For example: People may be above the poverty line but still deprived of needs such as housing. So, another way to measure poverty is to measure it directly in terms of the ability to meet a number of basic human needs such as access to housing, healthcare, sanitation and education. This is a multidimensional approach.
- From this perspective, income is the means to ends, while the ends themselves are the satisfaction of basic human needs. The multidimensional approach has a direct focus on the ends.

Limitations of the MPI

- The indicators **include both outputs**, such as years of schooling, and **inputs**, such as cooking fuel. It also includes both **stock and flow indicators**. A stock indicator is measured at a particular point in time, and it may have accumulated in the past. On the contrary, a flow indicator is measured per unit of time. Surveys do not have flow indicators for all dimensions.
- The **health data are relatively weak** and overlook some groups' deprivations especially for nutrition, though the patterns that emerge are plausible and familiar. For example, in many countries there is no nutritional information for women. In other countries, there is no nutritional information for men, in others still, for children.
- Although the MPI indicators were selected in order to guarantee as much cross-country comparability as possible, **indicators' comparability is still imperfect** for two reasons.
 - As detailed above in the case of nutrition, the information differs across the surveys used.
 - Even when they collect the same information, the minimum acceptable standards on certain indicators, such as some of the living standard ones, may vary greatly according to the culture.
- Intra-household inequalities** may be severe, but, for the moment, these cannot be reflected in the global MPI, precisely because there is no individual-level information for all the indicators.
- While the MPI goes well beyond a headcount ratio to include the intensity of poverty experienced, it does **not measure the depth of poverty**—how far away, on average, from the deprivation cut-off in each indicator poor people are. Nor does it measure inequality among the poor—how deprivation is distributed among the poor.
- The estimates presented are based on **publicly available data and cover various years** between 2005 and 2015, which limits direct cross-country comparability.

Why are there such wide discrepancies between MPI poverty estimates and \$1.90/day poverty estimates in so many countries?

- The MPI complements income poverty measures. It measures various deprivations directly. In practice, although there is a clear overall relationship between MPI and \$1.90/day poverty, the estimates do differ for many countries. Possibilities can include public services, as well as different abilities to convert income into outcomes such as good nutrition.
- The fact that there are differences does not mean that the national poverty number, or the MPI headcount is wrong – these simply measure different conceptions of poverty. At the same time, just as national poverty measures, in contrast, are designed to reflect the national situation more accurately and often differ in very useful ways from the \$1.90 measure, some countries may wish to build a national multidimensional poverty index that is tailored to their context, to complement the global MPI.
- The relationship between these measures, as well as their policy implications and methodological improvement, are priorities for further research.

What's new in MPI-2018?

The new global MPI has changes in five of the ten indicators from the original MPI: nutrition, child mortality, and years of schooling, housing and assets.

- The **new threshold for nutrition** includes BMI (Body Mass Index)-for-age, and stunting as well as underweight for children.
- For child mortality**, it considers whether a child has, sadly, perished in the household in the last five years preceding the interview date.
- For years of schooling**, the new threshold requires six years, rather than five years, of schooling.
- A household is deprived in the **housing indicator** if the floor is made of natural materials; or the roof or walls are made of natural or rudimentary materials.
- Finally, the **assets indicator** now includes ownership of computers and animal carts.

MPI 2018 have been revised to better align with the SDGs. The MPI shows how deprivations related to SDGs 1,2,3,4,6,7, and 11 are concretely interlinked in poor people's lives. The global MPI reflects deprivations each person faces in multiple SDG areas – education, water and sanitation, health, housing, etc. Connecting to at least seven SDGs, the MPI brings many concerns together into one headline measure. And, since people are MPI poor if they are deprived in one-third of the weighted indicators, the MPI focuses on people who are being left behind in multiple SDGs at the same time.

3.10. HUMAN DEVELOPMENT INDEX

Why in news?

India's ranking in UN's Human Development Index (HDI) went up by one from last year, to **130th among 189 countries**, released by the **United Nations Development Programme (UNDP)**.

United Nations Development Programme (UNDP)

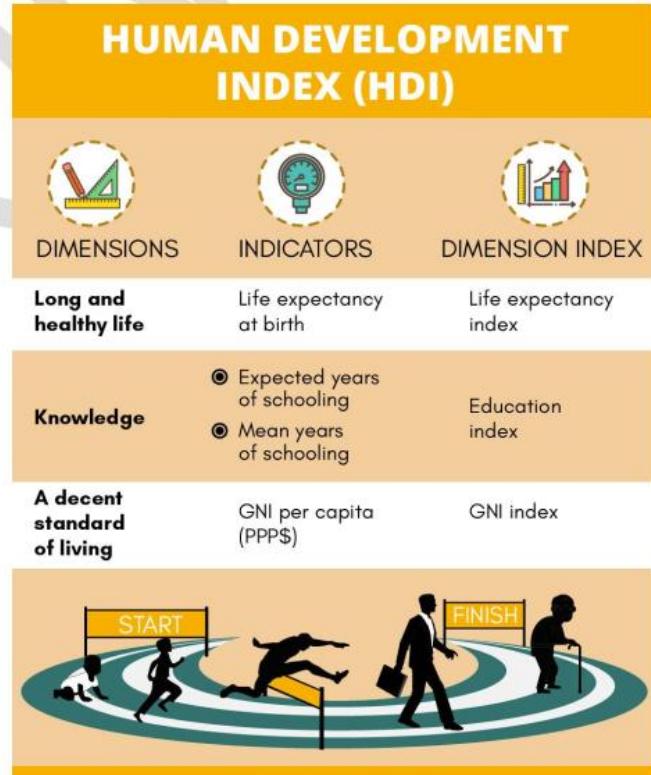
- The United Nations Development Programme (UNDP) is the UN's global development network, advocating for change and connecting countries to knowledge, experience and resources to help people build a better life.

Facts on Index

- Within South Asia, India's HDI value is above the **average of 0.638 for the region**, with Bangladesh and Pakistan, countries with similar population size, being ranked 136 and 150, respectively.
- Between 1990 and 2017, **India's HDI value increased from 0.427 to 0.640**, an increase of nearly 50 per cent and an indicator of the country's remarkable achievement in lifting millions of people out of poverty putting the country in the **medium human development category**.
- India's **life expectancy** increased from **57.9(1990)** to **68.8(2017)**.
- India's **per capita income** in PPP terms saw an increase of a 267% from **\$1,733** to **\$6,353** between 1990 and 2017.
- Expected years of schooling** went up from **7.6 years (1990)** to **12.3 years (2017)**.
- Development hasn't been spread evenly, with India's **income inequality the highest at 18.8%** – compared to 15.7% for Bangladesh and 11.6% for Pakistan. In fact, when corrected for **inequality India's HDI value falls by 26.8% to 0.468**.

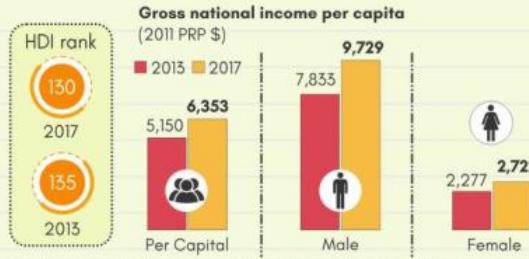
Outcome for India

- Most of the improvements have flowed to the top of the social pyramid** while those at the base have only just been lifted out of poverty.
- Middle class hasn't grown** as much as it should have, while small and medium enterprises have failed to transfer the agrarian workforce to manufacturing.
- Inequality remains a challenge for India** as it progresses economically, though the Government of India and various state governments have, through a variety of social protection measures, attempted to ensure that the gains of economic development are shared widely and reach the farthest first.
- In India, **women remain significantly less politically, economically and socially empowered than men**. For instance, women hold only 11.6 percent of parliamentary seats, and only 39 percent of adult women have reached at least a secondary level of education as compared to 64 percent males.
- Female participation in the labour market is 27.2 percent compared to 78.8 percent for men.
- Deteriorating air quality in major Indian cities** and its impacts on human health are also worrying. India also has one of the largest number of people in the world living on degraded land.



Human development improving, but sluggishly

Particularly egregious is gender inequality and the suicide rate.



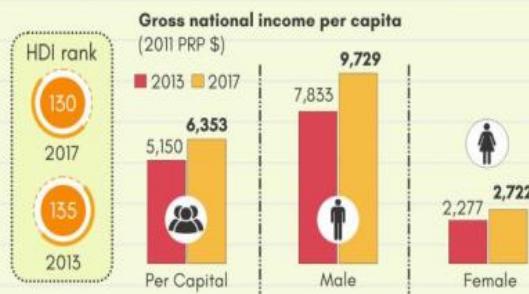
Some poorer countries do better than India in human development

Vietnam, despite being poorer, beats India on almost all parameters. (in 2017)



Human development improving, but sluggishly

Particularly egregious is gender inequality and the suicide rate.



| | | |
|--|-------------------|-------------------|
| Maternal mortality ratio (deaths per 100,000 live births) | 200 (for 2010) | 174 (for 2015) |
| Infant mortality ratio (per 1,000 live births) | 44 (for 2012) | 34.6 (for 2016) |
| Under-five mortality ratio (per 1,000 live births) | 56 (for 2012) | 43 (for 2016) |
| Stunting (moderate or severe) (% under five years) | 48% (2008-12) | 37.9% (2010-2016) |
| Quintile ratio | 5 (for 2003-2012) | 5.3 (2010-2017) |
| Mean years of schooling-years | 4.4 (for 2012) | 6.4 |
| Suicide rate (per 100,000 people) | 7.8 (2003-09) | 14.2 (2015) |
| Male | 13 (2008-09) | 17.9 (2015) |

Some poorer countries do better than India in human development

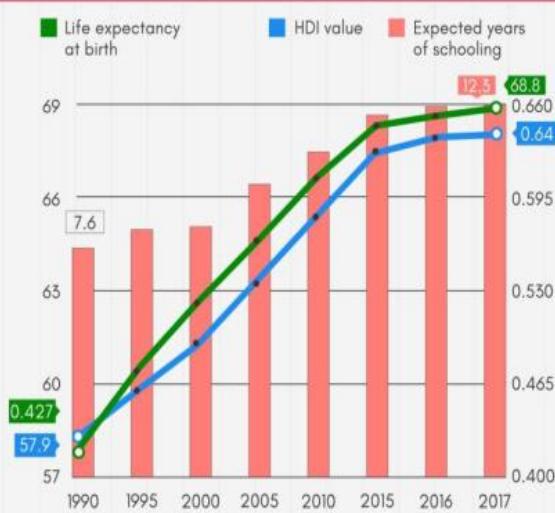
Vietnam, despite being poorer, beats India on almost all parameters. (in 2017)



| | Year | India | Vietnam | Bangladesh |
|---|------|-------|---------|------------|
| Maternal mortality ratio (per 100,000 live births) | 2015 | 174 | 54 | 176 |
| Infant mortality (per 1,000 live births) | 2016 | 34.6 | 17.3 | 28.2 |
| Under five mortality (per 1,000 live births) | 2016 | 43 | 21.6 | 34.2 |
| Suicide rate per 100,000 people | 2015 | 17.9 | 11.3 | 5.3 |
| Male | 2015 | 14.2 | 3.4 | 6.6 |
| Female | 2015 | 14.2 | 3.4 | 6.6 |

Source: Human Development Reports

INDIA'S HDI TRENDS



HOW NEIGHBOURS FARE

| Nation | Rank |
|------------|------|
| India | 130 |
| Bangladesh | 136 |
| Pakistan | 150 |

189 Countries for Which

HDI is Calculated

| | |
|-----------|----|
| Very high | 59 |
| Medium | 92 |
| Low | 38 |



Worst Performers

| |
|------------------------------|
| Niger |
| The Central African Republic |
| South Sudan |
| Chad |
| Burundi |

3.11. EASE OF LIVING INDEX

Why in News?

Pune is the best city to live in India, while Delhi is among the worst cities in terms of economic prospects, according to the Ease of Living Index rankings published by the **Union Ministry of Housing and Urban affairs**.

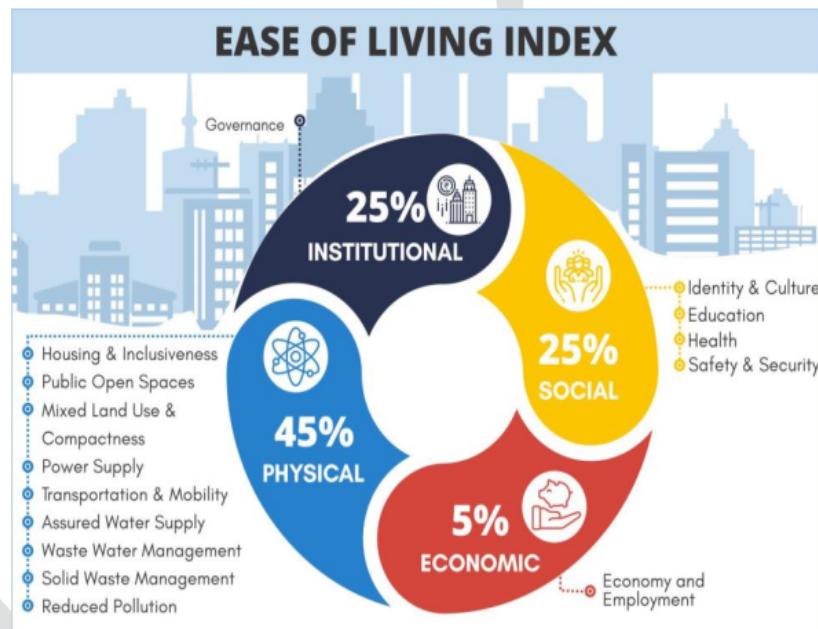
About Ease of Living Index

- It is an effort to assess the Ease of Living standards of 111 Indian cities against global and national benchmarks, which includes cities identified under the Smart Cities Mission, capital cities and a few more cities with a population of over 1 million.
- It seeks to assist cities in undertaking a 360-degree assessment of their strengths, weaknesses, opportunities, and threats.
- It captures the breadth of the quality of life in cities across 4 pillars and 15 categories using 78 indicators, of which 56 are core indicators and 22 are supporting indicators.
- The core indicators measure those aspects of ease of living which are considered 'essential' urban services. The supporting indicators are

used to measure adoption of innovative practices which are considered desirable for enhancing ease of living.

2018 Ease of Living Index Results

- Top 10 Liveable Cities** in India according to report are Pune, Navi Mumbai, Greater Mumbai, Tirupati, Chandigarh, Thane, Raipur, Indore, Vijaywada and Bhopal.
- The top positions in each of the sub-indices are occupied by the top 5 cities in the overall rankings: Navi Mumbai scores the highest in the **Institutional sub-index**, Tirupati in **Social sub-index**, Chandigarh in **Economic index** and Greater Mumbai in **Physical sub -index**.



How Ease of Living Index is helpful?

- It improves cities' decision making and ensure efficient allocation of resources based on gap areas.
- It enhances the quality and comparability of data collection.
- It identifies best models for achieving the desired transformation in ease of living, by enabling learnings across cities over time.
- It improves the quality of electoral discourse and improve accountability of elected representatives at the city level and serves as a basis for dialogue between citizens and urban decision makers.
- It will encourage all cities to move towards an "**outcome-based**" approach to urban planning and management towards sustainable urbanization and promote healthy competition among cities.
- It catalyses actions to achieve broader development outcomes including the Sustainable Development Goals and improving the quality of life in Indian Cities. Of the 17 SDG goals, 8 goals are directly linked to India's ease of living assessment framework with SDG 11 (make cities and human settlements inclusive, safe, resilient and sustainable).
- It assesses the outcomes achieved from various urban policies and schemes.

More in News

- Andhra Pradesh** has topped the chart in the 'Ease of Living Index' rankings among the states under the **Atal Mission for Rejuvenation and Urban Transformation (AMRUT)**, followed by **Odisha and Madhya Pradesh**.
- Atal Mission for Rejuvenation and Urban Transformation (AMRUT) focuses on providing basic civic amenities like water supply, sewerage, urban transport, parks. The emphasis of the mission is on infrastructure creation that has a direct link to quality of urban life.

3.12. NATIONAL DIGITAL COMMUNICATIONS POLICY- 2018

Why in News?

Recently, Union Cabinet approved the **National Digital Communications Policy-2018 (NDCP-2018)** and re-designated Telecom Commission as the “**Digital Communications Commission**”.

Need of the new policy:

- NDCP- 2018 has been formulated to cater to the needs of **modern technological advancements** in the Telecom Sector such as – 5G, IoT, Machine to Machine (M2M) learning, etc. that required a ‘customer focused’ and ‘application driven’ policy for the Indian Telecom Sector.
- It seeks to overcome shortcomings of previous **National Telecom Policy, 2012** in areas such as enhancing rural tele-density, optical fibre network to gram Panchayats, minimum broadband speed, etc.
- This policy can form the main pillar of **Digital India** by addressing emerging opportunities for expanding the availability of Telecom services and also Telecom based services.
- Through NDCP-2018 government wants to focus on **socio-economic growth** of the country with the help of the telecom sector instead of seeing it as source of revenue generation.

Telecom Commission (now Digital Communications Commission)

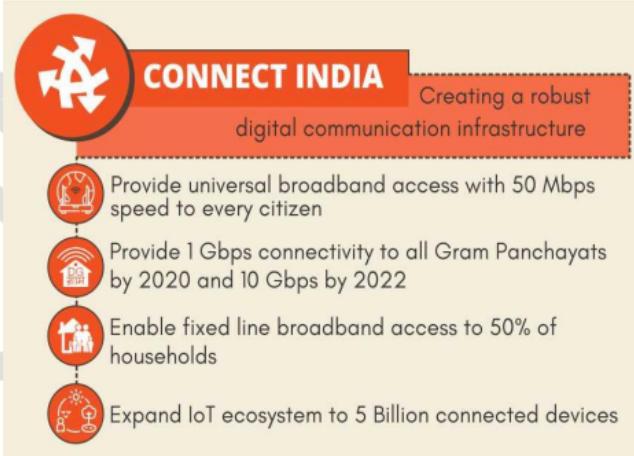
It was set up by the Government of India via resolution to deal with various aspects of Telecommunications. The Telecom Commission is responsible for:

- Formulating the policy of Department of Telecommunications for approval of the Government;
- Preparing the budget for the Department of Telecommunications for each financial year and getting it approved by the Government; &
- Implementation of Government's policy in all matters concerning telecommunication.

Strategies for Three Missions

1. Connect India

- Establishing a ‘**National Broadband Mission – Rashtriya Broadband Abhiyan**’ to secure universal broadband access
 - Implementation of the following broadband initiatives, to be funded through USOF and Public Private Partnerships:
 - ✓ **BharatNet** – Providing 1 Gbps to Gram Panchayats upgradeable to 10 Gbps
 - ✓ **GramNet** – Connecting all key rural development institutions with 10 Mbps upgradeable to 100 Mbps
 - ✓ **NagarNet** – Establishing 1 Million public Wi-Fi Hotspots in urban areas
 - ✓ **JanWiFi** – Establishing 2 Million Wi-Fi Hotspots in rural areas
 - Implementing a ‘Fibre First Initiative’ to take fibre to the home, to enterprises and to key development institutions in Tier I, II and III towns and to rural clusters.
 - Establishment of a **National Digital Grid** by:
 - ✓ Creating National Fibre Authority.
 - ✓ Creating a collaborative institutional mechanism between Centre, States and Local Bodies for **Common Rights of Way**.
 - Other components include - Enabling Infrastructure Convergence of IT, telecom and broadcasting by restructuring of legal, licensing and regulatory frameworks, creating a **Broadband Readiness Index** for States/ UTs, facilitate the establishment of Mobile Tower Infrastructure etc.
- **Recognizing Spectrum as a key natural resource** for public benefit to achieve India’s socio-economic goals, ensure transparency in allocation and optimise availability and utilization.
- **Strengthening Satellite Communication Technologies** in India. This includes
 - Revising licensing and regulatory conditions that limit the use of satellite communications, such as speed barriers
 - Optimise Satellite communications technologies in India, by **reviewing SATCOM policy** for communication services, along with Department of Space, to create a flexible, technology-neutral and competitive regime
 - **Making available new spectrum bands** (such as Ka Band) for satellite based commercial communication services.
 - Develop an **ecosystem for satellite communications** in India, with focus on: Promoting participation of private players, with due regard to national security and sovereignty
- Ensuring Inclusion of uncovered areas and digitally deprived segments of society by **channelizing the Universal Service Obligation Fund (USOF)**.
- Ensuring Customer Satisfaction, Quality of Service and effective Grievance Redressal by establishing Telecom Ombudsman and a centralised web-based complaint redressal system, focusing on public health and safety standards etc.

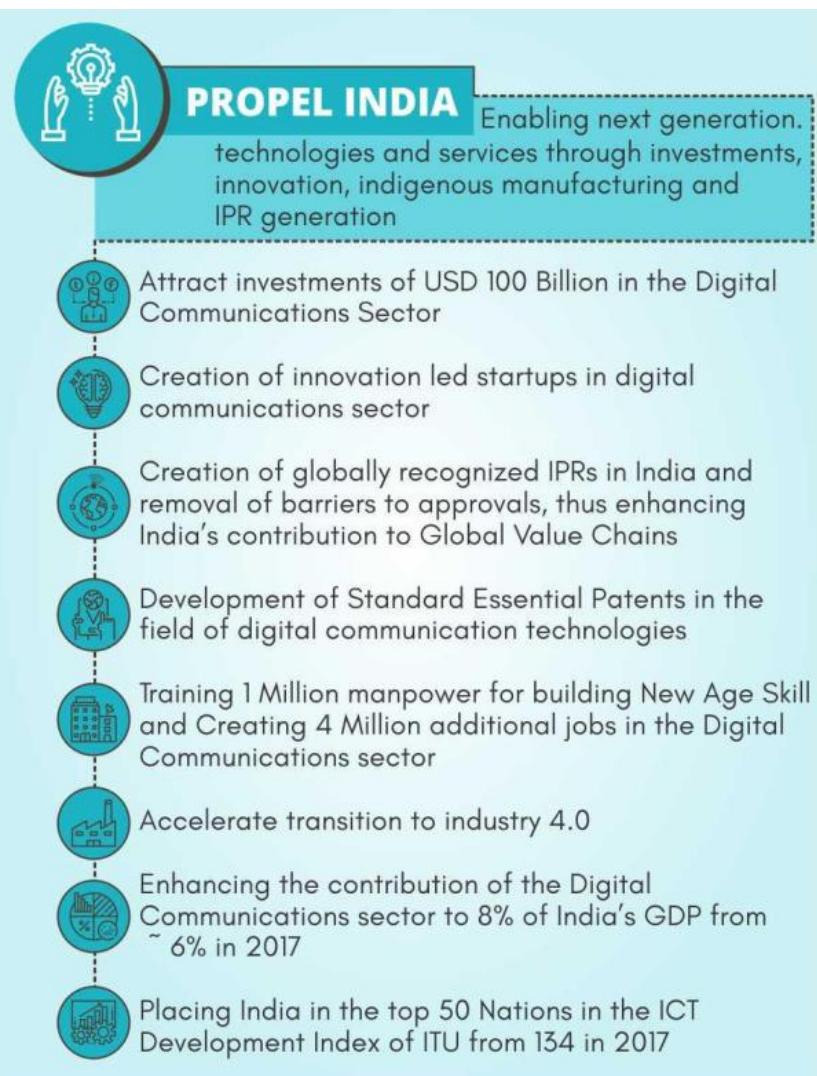


2. Propel India

- Catalysing Investments for Digital Communications sector by according Telecom Infrastructure the **status of Critical and Essential Infrastructure**, reforming the licensing and regulatory regime to catalyse Investments and Innovation.
- Ensuring a holistic and harmonised approach for harnessing Emerging Technologies by **creating a roadmap for emerging technologies** and its use in the communications sector, such as 5G, Artificial Intelligence, Establishing India as a global hub for cloud computing, content hosting and delivery, recognizing Digital Communications as the **core of Smart Cities** etc.
- Focussing on R&D by **creating a Fund for R&D** in new technologies for start-ups and entrepreneurs, Establishing Centres of Excellence, Fostering an Intellectual Property Rights regime that promotes innovation.
- Local Manufacturing and Value Addition** by Rationalising taxes, levies and differential duties to incentivize local manufacturing of equipment, Introducing Phased Manufacturing Program for identified product segments, Preferring domestic products and services with domestically owned IPR in the procurement by government agencies etc.
- Other strategies include Capacity building, strengthening of PSUs, create a **roadmap for transition to Industry 4.0** by 2020 etc.

3. Secure India

- Core strategies include establishing a strong, flexible and robust **Data Protection Regime**, assuring Security of Digital Communications by formulating a policy on encryption and data retention, Instituting a sectoral **Cyber Security Incidence Response System (CSIRT)**.
- Developing a **comprehensive plan for network preparedness, disaster response relief, restoration and reconstruction** components of which include –
 - Framing and enforcing standard operating procedures to be followed during disasters and natural calamities,
 - Enhancing the **Public Protection and Disaster Relief (PPDR)** plan for India by:



- ✓ Facilitating the establishment of a Pan-India network for Public Protection and Disaster Relief (PPDR)
- ✓ Making necessary spectrum available for PPDR including by establishing INSAT satellite-based mobile communication systems.

Concerns

- Some of the major targets listed in the 2012 policy are still to be achieved. For example, the minimum broadband speeds are set at 512 kbps at present even though the 2012 policy had envisaged minimum broadband speeds of 2Mbps by 2015. Instead of delving into why these targets were missed and how things can be improved, the National Digital Communications Policy 2018 lists out more and new targets.
- Further, it neither spells out how it plans to achieve the stated objectives nor gives a specific timeframe to implement the various proposals.

Significance

- The essence of the NDCP lies in its innate vision to transform the face of India's ICT industry by leveraging the principles of Design, Innovation and Creativity-led Entrepreneurship (DICE).
- It is praiseworthy to note that this policy focuses on end-to-end solutions along the entire ICT value chain under the core themes of 'Connect India, Propel India and Secure India'.
- Overall, the vision is great and the policies are created with the best of intent, however, we cannot fall behind this time around on the implementation front.

3.13. REAL ESTATE INVESTMENT TRUST

Why in News?

Blackstone Group along with Embassy Office Parks has filed India's first and Asia's largest prospectus for Real Estate Investment Trust (REIT).

What is a REIT?

- **REITs are listed entities which owns, operates and manages buildings/properties** (like Office Parks, Malls, Hotels, Residential Buildings etc.) for generating income and is bound by norms defined by SEBI and RERA, 2016.
- But **REITs functions like a mutual fund** and raises money from a number of investors and issues dividends to investors as return.
- **RERA regulations regarding REITs**
 - Projects being developed by REITs should be registered under RERA.
 - 70% of the funds raised for a particular project must be deposited in a separate account wherein 70 percent of the money received from the buyers shall be deposited to be used specifically for development of that project only.
- **SEBI regulations regarding REITs:**
 - REITs must distribute at least 90 per cent of their income to investors on a half-yearly basis.
 - The minimum investment amount for investors has been set at Rs. 2,00,000.00.

Benefits of REITs

- **Bring more investments:** REITs will facilitate more investment in the real estate sector – both domestic and foreign investment by bringing **transparency in asset valuation, clarity in carpet area, better corporate governance, clear disclosures and financial transparency practices etc.** REITs have been successfully implemented in countries like US, UK, Singapore, Japan, Australia and Canada.
- **Increased Transparency:** Real estate in India has always received a bad rap when it comes to transparency. In contrast, REITs require a full valuation on a half-yearly and yearly basis.
- **Philip to real estate sector:** REITs can purposefully step up funding for India's woefully underfunded urban real estate, including to utilise the scope for city redevelopment, and also provide attractive, stable and long-term returns for retail investors. REITs have the potential of bringing investment for urban development especially in the light of Smart City Mission, AMRUT etc.
- **Good option for small investors:** REITs are good news for those investors who have a small appetite -- as small as Rs 200,000-- but want to invest in the commercial real estate market. This means that you can add real estate to your investment portfolio without worrying about huge loans.
- **Stable returns:** A recent report by a leading consultancy suggests that REITs can generate returns of 7-8% annually with minimum risk.
- **Diversification of portfolio:** REITs would also enable diversification of the portfolio of the investors and provide the investors a new product that is regular income generating.
- REITs will usher greater liquidity in the commercial sector, while giving developers an option to exit projects, including those developers who are reeling under a financial crunch.

Problems with REITs

- While RERA was enacted in 2016, the first REIT listing is going to happen in 2018 even after several relaxations in regulations by SEBI due to the lack of confidence of investors in real estate sector in India.
- There is a lack of clarity in addressing the current NPA status in real estate sector under RERA and REITs.
- The minimum REIT investment amount has been set at a high value of Rs. 2,00,000.00. This deters the retail investors from investing in REITs.
- As land comes under state list, the legal status of REITs in some states is ambiguous.
- While the government has cleared the decks for the success of REITs, the levy of stamp duty charges at the state level, remains a hindrance in the attractiveness of REITs, as it can reduce the returns and make this form of investment less attractive.

Real Estate (Regulation and Development) (RERA)

Act was enacted in 2016. Features of RERA, 2016:

- Intends to **regulate transactions between buyers and promoters** of residential and commercial real estate developers.
- **Creation of Real Estate Regulatory Authority** by the States/UTs, consisting of a Chairperson and at least two full time members with experience in urban planning, law and commerce etc, along with mandatory registration of all residential projects with RERA.
- **Creation of Real Estate Appellate Tribunals to hear appeals against RERA.** REAT to provide time bound judgment in appeals.
- The **promoter has to maintain a 'separate account' for every project undertaken.** The promoter has to deliver projects in a time bound manner and if promoter fails to give possession of the property then the money received for that property has to be returned to the buyer.

3.14. GOODS AND SERVICES TAX NETWORK (GSTN)

Why in News?

The Union Cabinet has approved **increasing** of Government ownership in Goods and Services Tax Network (GSTN).

More

- It has decided that **the entire 51% equity held by the Non-Government Institutions** in GSTN will be acquired equally by the Centre and the State Governments.
- Hence the restructure GSTN **will have 100% government ownership equally** distributed between the Centre (50%) and the States (50%).
- There will also be a change in the existing composition of the Board of GSTN. It will have total 11 Directors:
 - 1 Chairman
 - 1 CEO
 - 3 directors from the Centre
 - 3 from the States
 - 3 other independent directors to be nominated by the Board of Directors
- The decision was taken as the government felt that a vast amount of GST related data should be completely under its supervision, as it contains sensitive information of over 1 crore taxpayers.

GSTN

- Goods and Services Tax Network (GSTN) is a **not for profit company** governed under section 8 of the **companies Act**.
- Currently the centre holds 24.5% equity and the States(including UTs Delhi and Puducherry) hold 24.5% equity in GSTN. The Balance 51% equity is with non-Government financial institutions.
- The Company has been set up primarily to provide **IT infrastructure and services** to the Central and State Governments, tax payers and other stakeholders for implementation of the Goods and Services Tax (GST).

4.1. SMART BORDER FENCE

Why in news?

Recently Union Home Minister inaugurated the smart border fencing pilot projects under the comprehensive integrated border management system (CIBMS) programme.

More on News

- Smart fencing at the borders is a technological solution devised to address the security issues in the Border States and the two projects in five kilometers areas each have been installed along the Indo-Pak International Border in Jammu on a pilot basis.
- It has got hi-tech surveillance system that would create an invisible electronic barrier on land, water and even in air and underground.
- A stretch of 60 kms of Assam's border with Bangladesh would also in November be provided CIBMS pilot project to stop illegal migration.
- Ministry has been working towards upgrading border infrastructure, with more than 600km of roads having been built so far.
- The smart border fencing projects built under the Comprehensive Integrated Border Management System (CIBMS) programme is the first of its kind in the country to guard stretches where physical surveillance is not possible either due to inhospitable terrain or riverine borders.

Role of technology in border management

- Upgrading existing system:** Technology can be **integrated with the existing systems** to facilitate better detection and interception by the man behind the machine.
- Checking infiltration:** It can be help to detect infiltration via land, underwater, air and tunnels by deploying close-circuit television cameras, thermal imagers and night vision devices, BFSRs, underground monitoring sensors, and laser barriers along the border.
- Cross Border Trade:** It can also facilitate cross border trade. For example: Blockchain technology can help quickly and securely process transactions, it also makes much easier to identify and trace illegitimate trade.
- Removing Human errors:** As there is a limit to the ability of human to remain alert, see and hear, the smart gadgets can be used to enhance human capability. It will help to reduce human error and also stress on the man on ground.
- Mobility:** Advanced technologies in the vehicles can be used around the border areas and improving the functionality of their armored vehicles. Vehicles used by the security personnel are multipurpose, designed to help movement in tough terrains like deserts, no man's land and mountainous regions.
- Communication:** It can be used for better coordination among various stakeholders, and also between states and the centre. GSAT 7 is the first dedicated military communication satellite built by ISRO that will provide services to the Indian defence forces with the main user being the Indian Navy.
- Surveillance:** In order to improve patrolling and surveillance of the coastal areas, especially the shallow areas close to the coast. Drones can be deployed in the most dangerous and rugged circumstances and are made to assist rescue teams and forces.

CIBMS

- It is a **robust and integrated system** that is capable of addressing the gaps in the present system of border security by seamlessly integrating human resources, weapons, and high-tech surveillance equipment.
- It has three main components:
 - New high-tech surveillance** devices such as sensors, detectors, cameras, etc. as well as existing equipment for round-the-clock surveillance of the international border.
 - An efficient and dedicated communication network** including fiber optic cables and **satellite communication** for transmitting data gathered; and
 - A command and control centre** to which the data will be transmitted providing a composite picture of the international border.

Border protection grid

- It is set up in Indian states bordering Bangladesh to strengthen **Indo-Bangladesh border security** in a bid to curb various illegal activities.
- The grid comprises various elements namely physical barriers, non-physical barriers, surveillance system, intelligence agencies, state police, BSF and other state and central agencies.

Existing Systems at Borders

- BSF has been provided with night surveillance capabilities such as Passive Night Vision Goggles (PNG), Night Weapon Sights (NWS), Hand Held Search Lights (HHSL), Hand Held Deep Search Metal Detectors (HHMD), etc.
- Sophisticated devices such as Hand Held Thermal Imagery (HHTI) systems, Long Range Reconnaissance Observation Systems (LORROS), Battle Field Surveillance Radars (BFSR), etc. are already being used at Borders.

Issues which India might face

- The system might suffer numerous technical glitches such as a large number of false alarms, line of sight constraints, unreliable information transmission, and equipment malfunction.
- At present, many of the high-tech surveillance devices deployed by the BSF are not optimally utilized because the required technical expertise is not uniformly available among the force's personnel.
- The exorbitant cost of the electronic devices and the lack of easy availability of spare parts act as a deterrent against their use.
- Erratic power supply and adverse climatic and terrain conditions in the border areas could potentially undermine the functioning of the sophisticated system.

Other measures for effective border management

- Vulnerability mapping of entire border has been made a continuous process based on which sensitive spots are identified and adequate measures are taken to further strengthen security in these spots.
- Up-gradation of intelligence network and co-ordination with sister agencies, conduct of special operations along the border.
- Raising the issues of infiltration from across the border during various meeting with counterpart countries i.e. Company Commander Meeting, Commandant Level Meeting, Sector Commander Level Meeting, Frontier Level Meeting and Director-General Level Talks.

4.2. MID-AIR REFUELLED OF LCA TEJAS

Why in news?

Recently Indian Air Force (IAF) successfully carried out first ever mid-air refuelling of indigenously developed Light Combat Aircraft (LCA) Tejas.

Significance

- **India joins in elite group of countries** which have successfully developed air-to-air refuelling system for military aircraft.
- Air-to-air refuelling capability for LCA will be force multiplier for IAF as it enhances potential of aircraft to stay airborne for much longer period ,thus increasing its range and endurance.
- It will also enable IAF options to exploit operational potential of LCA as well as to participate in international exercises without having to stop or stage through several locations enroute.
- LCA gets much closer to important battle-ready tag, called final operational clearance (FOC) with this trial of air-to-air refueling.

LCA Tejas

- It is **single-seat multi-role jet fighter, powered by single engine**. It is pegged as world's smallest and lightest supersonic fighter aircraft in its class.
- It has been designed, developed and manufactured indigenously by state owned Hindustan Aeronautics Limited (HAL) as part of LCA programme, started in 1980s to replace India's ageing MiG-21 fighters.
- **Range:** It has limited reach of little over 400-km and will be mainly used for close air-to-ground operations (unlike Russian-origin Sukhoi-30MKIs or Rafale which have deep strike capability into enemy territory due to their long range).
- **Weaponry:** It can fire air-to-air missiles, carry bombs and precision guided ammunition.

4.3. MILITARY EXERCISES

- **Exercise Kazind 2018:** It is the 3rd edition of Joint military exercise between the Indian and Kazakhstan Army, which was held in Otar region of Kazakhstan.
- **Yudh Abhyas:** It is the 14th edition of Joint military combat exercise between the Indian and the US army, which was held at Chaubattia, Uttarakhand.
- **Exercise Slinex 2018:** It is the 6th edition of a bi-lateral Naval Exercise between India and Sri Lanka, held in Trincomalee, Sri Lanka.
- **Nomadic Elephant-2018:** It is an annual, bilateral military exercise between Indian and Mongolian armies.
- **BIMSTEC MILEX-18:** It is the first multilateral military field training exercise between BIMSTEC (Bay of Bengal Initiative for Multi-Sectoral Technical and Economic Cooperation) nations.
- **Exercise Aviaindra-18:** It is a bi-annual exercise conducted since 2014, between the air force of India and the Russian Federation.

Additional Information

- **Tri-service Exercise:** India and the US have decided to hold their first-ever **mega tri-service exercise** off the eastern coast of India next year.
 - This will be second such tri-service exercise, with a foreign country, after Russia.

5.1. BLACK CARBON

Why in news?

A recent study by the Dehradun-based **Wadia Institute of Himalayan Geology (WIHG)** has found that black carbon travelling from Mediterranean countries **during the western disturbances and wind trajectories** may be one of the contributing factors leading to pollution and receding snowline in the Himalayas.

More on News

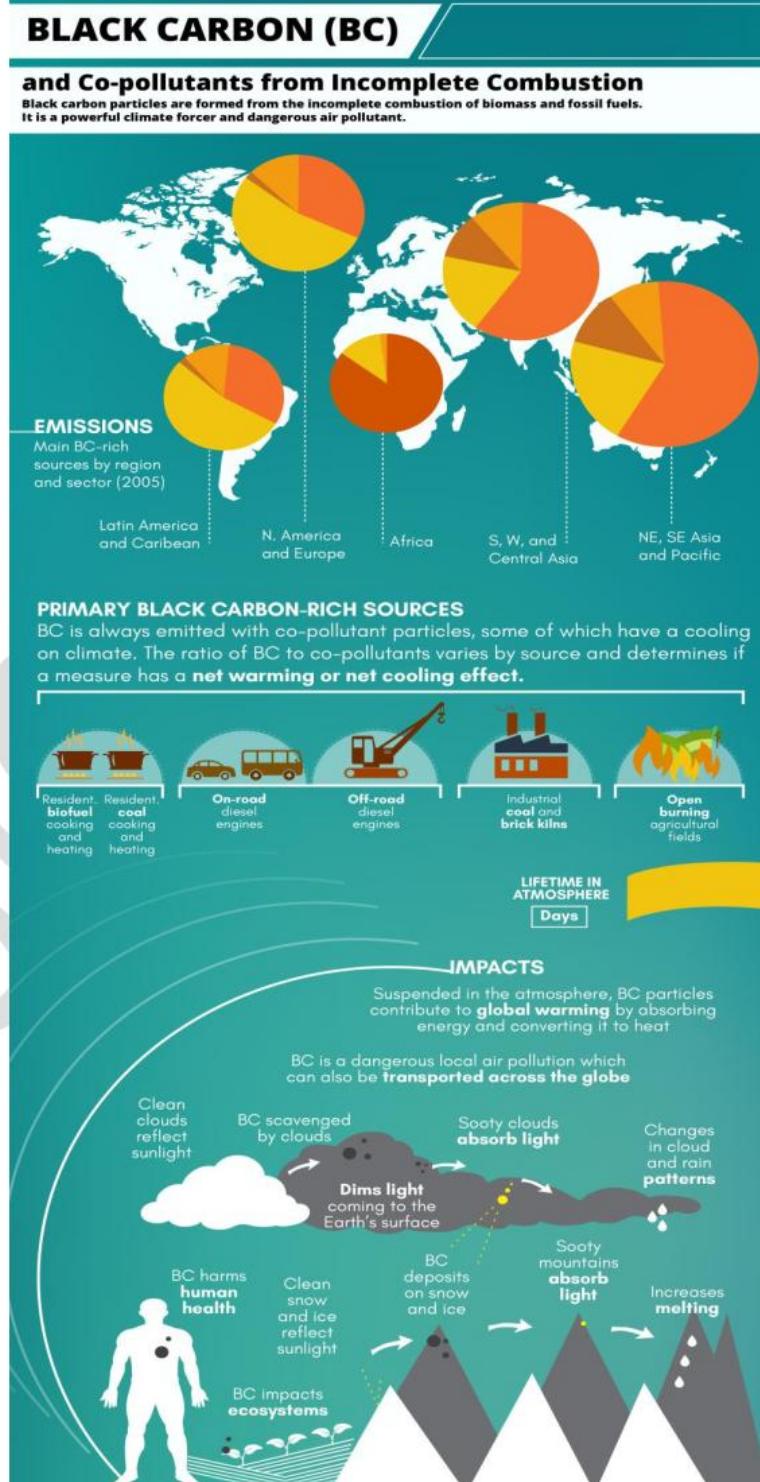
- **The high concentration of black carbon in January and February** is not originating from local sources because life remains near standstill as almost the entire population in these areas migrates to the plains for the winter.
- **Increase in GHG gases and global warming has been affecting the ecosystem in Himalayas.**

About Black Carbon

- Black carbon is a **potent climate-warming component of particulate matter** formed by the **incomplete combustion** of fossil fuels, wood and other fuels.
- Black carbon is a **short-lived climate pollutant** with a lifetime of only days to weeks after release in the atmosphere. During this short period of time, black carbon can have significant direct and indirect impacts on the climate, glacial regions, agriculture and human health.

Impact of Black Carbon

- **Climate impact**
 - Black carbon is an important contributor to warming because it is very effective at absorbing light and heating its surroundings.
 - It also influences cloud formation and impacts regional circulation and rainfall patterns.
 - When deposited on ice and snow, black carbon and co-emitted particles reduce surface albedo (the ability to reflect sunlight) and heat the surface. The Arctic and glaciated regions such as the Himalayas are particularly vulnerable to melting as a result.
- **Health impact**
 - Black carbon and its co-pollutants are key components of fine particulate matter (PM2.5) air pollution.
 - It has been linked to a number of health impacts including premature death in adults with heart and lung disease, strokes, heart attacks, chronic respiratory disease such as bronchitis, aggravated asthma and other cardio-respiratory symptoms.



Brown Carbon: It originates primarily during the **combustion of organic biomass** and coexisting with Black Carbon. It has similar climate effect as Black Carbon due their light absorbing property.

Blue Carbon: It is the **carbon stored and sequestered in coastal ecosystems** such as mangrove forests, seagrass meadows or intertidal saltmarshes.

- **Impact on Vegetation and Ecosystems**

- Black carbon can affect the health of ecosystems in several ways: by depositing on plant leaves and increasing their temperature, dimming sunlight that reaches the earth, and modifying rainfall patterns.
- Changing rain patterns can have far-reaching consequences for both ecosystems and human livelihoods, for example by disrupting monsoons, which are critical for agriculture in large parts of Asia and Africa.
- Increased black carbon has effects like decreased snow cover area near the snowline as well as vanishing of valuable medicinal herbs.

Global Warming Potentials (GWP)

| Pollutants | GWP 20 years | GWP 100 years |
|-------------------|--------------|---------------|
| Carbon dioxide | 1 | 1 |
| Carbon monoxide | 18.6 | 5 |
| Sulphur dioxide | -268 | -71 |
| Oxide of Nitrogen | -560 | -149 |
| Fossil methane | 85 | 30 |
| Nitrous oxide | 264 | 265 |
| Black carbon | 3200 | 900 |
| Organic carbon | -160 | -46 |

Source: ARS WGI

Control measures for Black Carbon

- Replace traditional cooking to clean burning modern fuel cook stoves like clean-burning biomass stoves, LPG etc.
- Modernize traditional brick kilns to vertical shaft brick kilns in Industries.
- Fast transition to Bharat Stage VI vehicles and soot-free buses and trucks and eliminate high pollution emitting diesel vehicles.
- **Ban open-field burning of agricultural waste.**
- Capture and improve oil flaring and gas production.
- Ban open burning of municipal waste.

5.2. CONSTRUCTION AND DEMOLITION (C&D) WASTE MANAGEMENT IN INDIA

Why in News?

The Supreme Court has created a flutter by staying construction activity in States that do not have a **solid waste management policy**.

About Construction and Demolition (C&D) waste

- It is generated during the construction, renovation, and demolition of buildings or structures. These wastes include materials such as concrete, bricks, wood and lumber, roofing, drywall, landscape and other wastes.
- There is a huge demand of aggregates in the housing and road sectors but there is significant gap in demand and supply, which can be reduced by recycling construction and demolition waste to certain specifications.
- While some of the items like bricks, tiles, wood, metal etc. are re-used and recycled, concrete and masonry, constituting about 50% of the C&D waste is not currently recycled in India
- The private contractors remove this waste to privately owned low-lying land for a price or more commonly, dump it in an unauthorized manner along roads or other public land.

Data and Facts

- Construction accounts for nearly 65 per cent of the total investment in infrastructure** hence it is more important to know how to effectively manage construction and demolition (C&D) waste.
- 25-30 million tonnes of C&D waste is generated annually** in India of which only **5 per cent is processed**.
- According to studies, **36 per cent of C&D waste comprises soil, sand and gravel**. With rampant sand mining having destroyed river beds, worsening the impact of floods, there is a crying need to recycle C&D waste.
- The Central Pollution Control Board's **Waste Management Rules of 2016** and the **Guidelines in 2017** spelt out clear timelines on formulating policies, identifying sites for processing and commissioning these, but there has been no action on the ground.

Issues and Challenges

- It impacts soil fertility and is a **health hazard** in urban areas.
- The virtual absence of recycling also goes against India's **commitments with respect to carbon emission reduction**.
- There is **neither strong social awareness nor enough political will** to promote recycling.
- Waste collection and segregation mechanism is **largely unorganised** leading to scrap contamination.
- Most municipal **infrastructure is outdated and inadequate** in terms of collection, transportation and scrap yards.
- Appropriate **technologies** to maximise recovery from recycling are still nascent.

Initiatives to promote recycling of C & D waste in India

- The **Swachh Bharat Mission** envisages processing of 100% solid waste generated in cities / towns by October 2019 as a key objective, which includes Construction & Demolition wastes.
- Ministry of Urban Development directed States to set-up **environment friendly C & D recycling facilities** in all cities with a population of over 10 lakhs.
- The **Bureau of Indian Standards and Indian Roads Congress** shall be responsible for preparation of code of practices and standards for use of recycled materials and products of construction and demolition waste in respect of construction activities.
- Building Material & Technology Promoting Council** in 2016 released "Guidelines for utilization of C & D waste in construction of dwelling units and related infrastructure in housing schemes of the Government".
- Central Public Works Division's "Guidelines for Sustainable Habitat"** discusses 'Guidelines on reuse and recycling of Construction and Demolition (C & D) waste'.

Benefits of reducing the Disposal of C&D Materials

- Environmental-** It reduces demand for energy and water in manufacture of building materials from mined / natural resources (thereby reducing GHGs and environmental impacts arising from mining, manufacturing and transportation).
 - Along with need for **fewer disposal facilities** it reduced the need for space for disposing it off.
- Economical-** It can also create employment and economic activities in recycling industries.
 - It reduces overall building project expenses through avoided purchase/disposal costs and reducing transportation costs by onsite reuse.
 - Recycling will reduce housing costs, given the materials shortage, and should be an integral aspect of '**affordable housing**'.

Construction & Demolition Waste Management Rules, 2016

Among various things, following are some of the most important provisions under the guidelines-

- At Individual level:** Every waste generator shall **segregate construction and demolition waste** and deposit at collection centre or handover it to the authorised processing facilities
 - Large generators shall **segregate the waste into four streams** such as concrete, soil, steel, wood and plastics, bricks and mortar. They shall ensure that there is **no littering or deposition** so as to prevent obstruction to the traffic or the public or drains.
- At Local level:** The service providers shall prepare a **comprehensive waste management plan** for waste generated within their jurisdiction.

- Service providers shall **remove all construction and demolition waste** in consultation with the concerned local authority on their own or through any agency.
- **At State level:** The concerned department in the State Government dealing with land shall **provide suitable sites for setting up of the storage, processing and recycling facilities** for C&D waste.
 - Procure and utilize 10-20% materials made from C&D waste in municipal and Government contracts.
 - Operator of the recycling facility shall obtain **authorization from State Pollution Control Board** or Pollution Control Committee.
- **At national level:** The Central Pollution Control Board shall prepare **operational guidelines related to environmental management** of C&D waste and **Indian Roads Congress** need to prepare standards and practices pertaining to products of C&D waste in roads construction.
- The processing / recycling site shall be **away from habitation clusters, forest areas, water bodies, monuments, National Parks, Wetlands and places of important cultural, historical or religious interest.**

'Sustainable Model' on C & D waste management

The key components of a '**Sustainable Model**' on Construction and Demolition (C & D) Waste Management Rules, 2016 can include the following:

- **Practical estimation** of C & D waste generation
- **Identified sites and timely acquisition** of land for development of integrated C & D processing facilities with necessary approval from local administration / civic bodies
- **Specifications / standards for recycled C & D waste** products for quality acceptance
- **List out and mandate use of recycled products** from C & D wastes
- **Penalty** - Landfill levy
- **Map water bodies** in a city / region – encroachment of water bodies in cities for generating 'land' is a common practice observed several cities
- **Research on economically viable C & D recycling** options
- **Awareness campaign** – tools for sensitization of general public.

To make the efforts put forth in the direction of C&D waste management, following a "Sustainable Model" may further accelerate the results.

5.3. INDIA COOLING ACTION PLAN

Why in News?

- India became the first country to release a draft **India Cooling Action Plan (ICAP)** which focuses on Sustainable Cooling through Thermal Comfort for All.
- It was released on the occasion of 24th World Ozone Day (16 September) with theme this year being "Keep Cool and Carry on": The Montreal Protocol.

Why India's cooling needs are a concern?

- Despite India being a sub-tropical country, India's Per Capita Energy Consumption towards space cooling is 69kWh, much lower than the world average of 272kWh.
- Cooling is also intimately associated with human health, well-being and productivity. The need to ensure thermal comfort for all and access to cooling is even more important considering the tropical climate of India.
- Cooling related energy consumption is a major contributor (10%) to global CO₂ emissions.
- Rising per capita income, rapid urbanization along with currently low penetration of air conditioning may cause India's Cooling Needs to increase upto 8 times by 2037-38 as compared to the 2017-18 baseline.

About India Cooling Action Plan:

- India Cooling Action Plan **aims** to:
 - Reduction of cooling demand across sectors by 20% to 25 % by year 2037-38.
 - Training of 100,000 service sector technicians by 2022-23 under Pradhan Mantri Kaushal Vikas Yojana.
 - Reduction of refrigerant demand by 25% to 30% by year 2037-38.
- Draft India Cooling Action Plan looks at **two scenarios**:
 - **No change in current policies**: cooling requirement is projected to grow around 8 times by 2037-38 as compared to the 2017-18 baseline with the building sector leading the growth.
 - **Intervention Scenario**: the total refrigerant demand can be reduced by 25%-30% by 2037-38 through proactive measures
- **Refrigerant-based cooling** is the most common cooling technique. According to Kigali Amendment to Montreal Protocol, India must phase down hydro fluorocarbons (used in refrigerant based cooling by 85% of their 2024-26 levels by 2047
- Suggestions under India Cooling Action Plan:
 - **Combining active (air-conditioning) and passive cooling strategies** like better implementation of building energy codes, adoption of adaptive thermal comfort standards, increasing energy efficiency of room air-conditioners and fans
 - **Adoption of adaptive thermal comfort standards** to specify pre-setting of temperatures of air-conditioning equipment for commercially built spaces, and development of energy-efficient and renewable-energy-based cold chains for perishable foods besides other things.

5.4. CONSERVATION OF MIGRATORY BIRDS AND THEIR HABITATS

Why in news?

Ministry of Environment, Forest and Climate Change has developed a National Action Plan for Conservation of Migratory Birds and their Habitats along Central Asian Flyway (CAF) for the period 2018-23.

GOAL of NAP

- The overall **longer-term goal** of the National Action Plan is to arrest population decline and secure habitats of migratory bird species.
- In **shorter-term** the action plan seeks that by 2027, to halt the downward trends in declining meta-populations and maintain stable or increasing trends for healthy populations.

Objectives of NAP: Following are the action plan's specific objectives:

- Halt and reverse decline of migratory birds;
- Reduce pressure on critical habitats by management based on landscape approaches;
- Develop capacity at multiple levels to anticipate and avoid threats to habitats and species undergoing long term decline;
- Improve database and decision-support systems to underpin science-based conservation of species and management of habitats;
- Sensitize stakeholders to take collaborative actions on securing habitats and species; and,
- Support trans-boundary co-operation to secure migratory bird species and habitats in range countries.

Threats to Migratory Birds

- Changing land-use** is the most important factor affecting land birds across the breeding and non-breeding grounds.
- Unsustainable taking and **climate change** are additional threats.
- Major stresses** on population of migratory birds include habitat loss and degradation, pollution, illegal shooting and poisoning, collisions with aerial structures such as wind turbines, electrocution by power lines and increasing night light.
- Many migratory raptors are particularly at risk during migration because they gather to form major concentrations and move in large groups along their flyways, for example, at narrow land bridges or sea crossings, which can increase the potential impact of certain threats.

To achieve the aforementioned objectives, the action plan is structured in **six interrelated components**

| SPECIES CONSERVATION | HABITAT CONSERVATION & SUSTAINABLE MANAGEMENT | CAPACITY BUILDING | COMMUNICATION AND OUTREACH | RESEARCH & MONITORING | INTERNATIONAL COOPERATION |
|--|--|---|--|---|--|
| National inventories of the stop-over and wintering sites of migratory birds and population status | Integrated management of priority wetlands | Region-wise capacity development | Outreach materials targeted at diverse audiences | Analysis of existing long-term datasets | Establishing CAF Secretariat in India |
| Formulate and implement Single Species Action Plan (SSAP) with degree of threat perception | Boundary demarcation, notification & inclusion in land use records | Develop education and awareness material, training material on population/habitat, targeted training of enforcement officials | Build a network of 'Student ambassadors' | Monitoring Population Trends | Periodic meetings with Range Countries |

| | | | | | |
|---|---|--|--|---|-------------------|
| Lists of migratory birds being hunted, hunting seasons and trade patterns | Allocation of water for ecological functioning | Ringing Program | PRIs, Civil Society Organizations (CSOs) and Community Based Organization (CBOs) to act as 'knowledge hubs', custodians and stewards | Inventory, Assessment & Monitoring of Wetland Habitats | Joint Initiatives |
| Periodic disease surveillance | Cross-sectoral institutional arrangements | Capacity protocols and for disease surveillance | Encourage National Green Corps | National Database on CAF | |
| Conservation initiatives through local community participation, including citizen science groups. | Integrating CAF species & habitat conservation objectives in PA Plans | Stakeholder capacity for conservation and ownership of local sites | Awareness amongst media And publication of newsletter periodically | Management Effectiveness Tracking With Decision-Support System While Improving Knowledge base on 'Data-Deficient' sites | |

Note: These are general dimensions from which points can be incorporated in other similar areas as well

Significance of NAP

- It states the national priority and specific actions required to ensure healthy populations of migratory species in India, within their range across the flyway.
- The NAP is based on **Central Asian Flyway Action Plan** which provides a common strategic framework for regional collaboration and affirmative action for protecting, conserving, restoring, and sustainably managing populations of migratory bird species and their habitats in the Indian subcontinent falling under the Central Asian Flyway region.
- Assist various stakeholders:** This action plan would enable national and state level policy and decision makers, those responsible for species conservation and management of habitats, stakeholders and society at large to take coordinated actions for securing and enhancing populations of migratory birds.
- International Commitments:** The NAP has also been drawn to support meeting national commitments related to protection and conservation of migratory birds and their habitats under the Convention on Conservation of Migratory Species of Wild Animals (CMS), the Convention on Wetlands of International Importance Especially as Waterfowl Habitats (Ramsar), the Convention on Biological Diversity (CBD), and the Convention on International Trade of Endangered Species (CITES).
- The plan takes **cognizance of ongoing programmes and schemes** of the Ministry of Environment, Forest and Climate Change (MoEFCC) for conservation of migratory birds and their habitats (such as wetlands and forests), as well as those of other central government ministries (such as water resources, rural development, agriculture and others), state governments, international agencies and others.

5.5. DISASTER PROOFING OF TELECOMMUNICATIONS

Why in News?

The recent Kerala floods witnessed a large-scale failure in communications services, calling for adequate preparedness measures in dealing with the aftermath of disasters on the part of telecom operators, policy-makers and disaster management agencies.

Consequences of Communications infrastructure failure:

- **Preventing Emergency Response:**

In the immediate hours following disaster, relief efforts can be paralyzed or severely delayed if the responding agencies are unable to communicate with one another.

- **Effective coordination becomes further complicated:** the lack of an overarching command

structure can create miscommunications and delays in action. This may further impact information sharing and quick decision making in such crucial times.

- **Significantly reduces the resilience of communities exposed to risk** due to lack of well-designed communications and information infrastructure, as observed during Uttarakhand, Mumbai and Chennai floods in recent past.

- **Spread of false information and confusion:** Without an organized flow of information, there may be spread of misinformation and panic at a time when organization and level-headedness are key to carrying out rescue operations as quickly and efficiently as possible.

How Communications Infrastructure Fails During a Disaster?

- **Physical damage to devices or components:** Cyclones, floodwaters, and seismic activity can create physical disturbances significantly damaging the communications equipment's. These have the potential to be incredibly costly and time consuming to restore, as they require maintenance or sometimes replacement of complex network hardware to re-establish communications.
- **Damage to Wireless systems:** as different wavelength signals can be cut off by heavy rain, snow, or fog. The transmitter itself can also receive damage or be knocked out of alignment with its receiver.
- **Network Congestion:** During disasters, the communications networks often become congested with exceptionally high levels of data traffic. When this happens, communications can be severely limited or even cut off completely, and important messages are often lost.

Standard Operating Procedure (SOP) prescribed by Department of Telecom (DoT):

- **Telecommunication equipment** should be installed at suitable locations in disaster prone areas to be able to withstand impacts of any disaster, e.g. in flood prone areas location of exchanges/ critical equipment to be preferably at higher altitude area to avoid inundation of water.
- **Critical equipment** should not be concentrated in one building, also, **earthquake-proofing towers** in known risk areas and developing a satellite-based system which can provide back-up communications and data connectivity also need to be prioritized.
- Redundant microwave, aerial or underground links and other **network elements** such as switches etc. should be **secured in alternative locations**. In hilly and remote area, satellite connectivity should be preferred.
- Novel **traffic deluge management techniques**, which differentiate urgent and delay-tolerant services, can provide connectivity for urgent services while delay-tolerant services may be redirected to a temporary facility.
- Telecommunication Service Providers (TSPs) to **identify vulnerability** of their respective telecom infrastructure and accordingly prepare plan for emergency situations. **Provision of sufficient backups** of network elements, gen-sets/batteries and fuel can prevent total failures from minor equipment damage. Low power consumption equipment should be preferred at all vulnerable / critical locations.
- Priority needs to be given to **designated users engaged in relief operations**. Public is also required to be made aware to use **alternate mode of communications** such as SMS or internet media whenever congestion in the voice calling in mobile network is experienced.
- TSPs shall **identify Main and alternate Nodal officers** at central level and at every telecom circle level and publicize their full contact details for coordination related to disaster management prominently on their website.
- TSPs shall have a **Disaster Response Task Force (DRTF)** at State level and **Rapid Damage Assessment Team (RDAT)**. DRTF teams will be responsible for immediate provisioning of emergency communication and restoration of telecom services in disaster affected areas whereas, RDAT shall work to determine the precise nature and extent of damage so that the planning for restoration of telecommunication services can be done in the efficient and effective manner.

Additional Information

The new digital telecommunication policy also talks about developing a comprehensive plan for network preparedness, disaster response relief, restoration and reconstruction

- **MoUs among TSPs for restoration of Telecom services in emergencies and disaster conditions should be signed.** TSPs may enter into Memoranda of Understanding (MoU) among themselves for sharing specialized resources and Intra-circle roaming for provisioning of services.
- **Geographically dispersed servers** and use of **cloud-based platforms** to make data services more accessible.
- Operators should be mandated to **provide mobile base stations and backpack devices** in case of disaster when terrestrial network gets damaged.

Way Forward

- Value added information along with data must be sent to the right people at the right time by establishing a reliable, dedicated and latest technology based, **National Disaster Communication Network (NDCN)**, with particular emphasis on **last-mile connectivity** to the affected community during all phases of disaster continuum.
- **Network path diversity** is one of the most effective tactics to reduce the risk of communications failure during a disaster. This is accomplished by establishing two or more network connections that use either a different type of technology or follow a different physical path, minimizing the chance that both connections will be knocked out at the same time.
- Because network connections cannot always be preserved in a disaster scenario, another effective method for maintaining and/or restoring communications in the hours immediately following the event is to establish one or more **ad-hoc network links**.
- Reconstruction and recovery in infrastructure sectors must follow the “**Build Back Better**” principle for multiple hazards.

About National Disaster Communication Network (NDCN)

NDCN will be a network of networks created by leveraging existing communication networks, including NICNET, SWANS, POLNET, DMNET (ISRO) and connecting them to various Emergency Operation Centers (EOCs) which will be established at National (NEOC), State (SEOCs) and Districts (DEOCs) Level.

5.6. LANDSLIDE WARNING SYSTEM

Why in news?

Recently, a **real-time landslide warning system** has been set up in the Sikkim-Darjeeling belt of north-eastern Himalayas.

Background

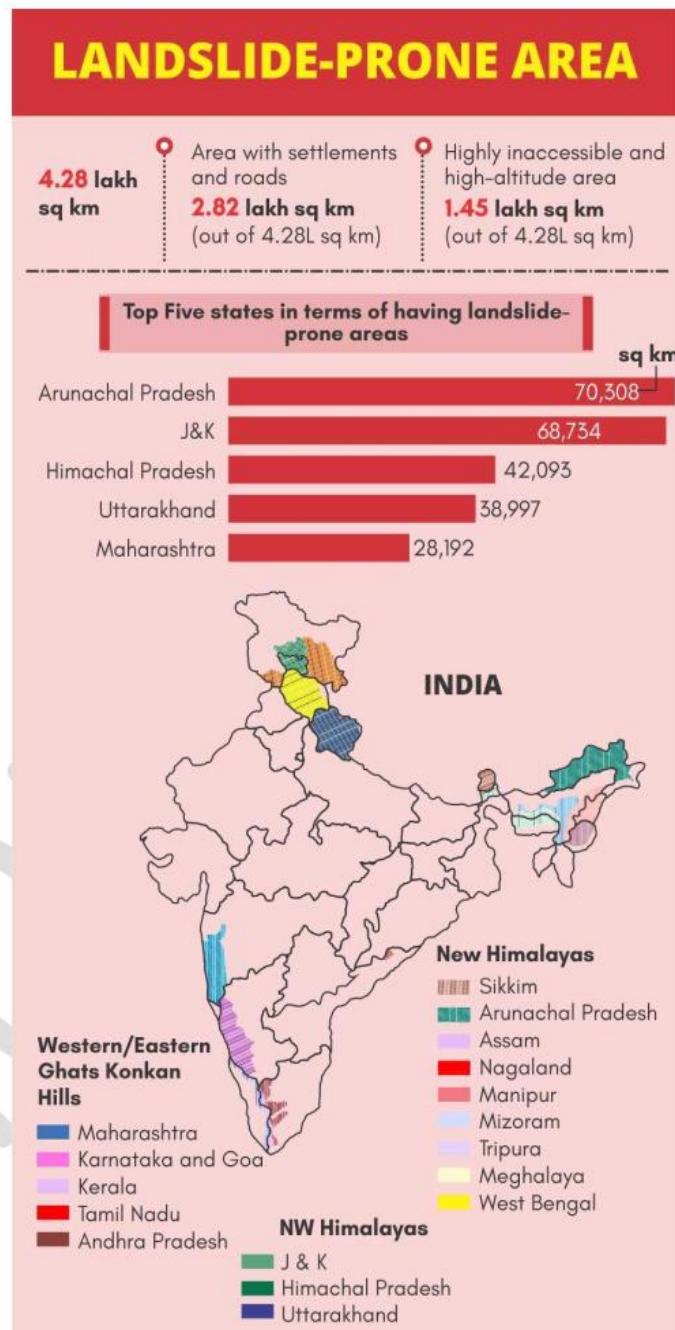
- According to **Global Fatal Landslide Database (GFLD)**, Asia was found to be the most-affected continent where 75% (India = 20%) of landslides occurred, with a substantial number reported along the Himalayan Arc.
- As per global database on landslides, the world's top two **landslide hotspots exist in India**: the southern edge of the Himalayan arc, and the coast along south-west India where the Western Ghats are situated.
- According to **Geological Survey of India (GSI)**, about 12.6 % of the total land mass of India falls under the landslide-prone hazardous zone.
- Vulnerability of Sikkim's:** 4,895 square kilometer area is sensitive to landslides, of which 3,638 sq km area is surrounded by human population, roads and other infrastructure.

About Warning System

- It will help in **saving lives and loss to property** by issuing advance alerts by 24 hours.
- The warning system **consists of over 200 sensors** that can measure geophysical and hydrological parameters like rainfall, pore pressure and seismic activities.
- It has been deployed by the researchers of Kerala based Amrita University in collaboration with the Sikkim State Disaster Management Authority and partly funded by the Ministry of Earth Sciences.
- University had earlier installed a landslide warning system **in Kerala's Munnar district**.

About Landslide

- Definition:** Landslides are downward and outward movement of slope materials such as rock debris and earth, under the influence of gravity.
- Major reason:** Landslides are triggered by natural causes like vibrations from earthquakes and the build-up of water pressure between soil layers due to prolonged rainfall or seepage. In recent decades, manmade causes have become significant in triggering landslides, including removal of vegetation from the slopes, interference with natural drainage, leaking water or sewer pipes, modification of slopes by construction of roads, railways, buildings etc.
- Human-Triggered Fatal Landslides are increasing at the highest rate in India, where 28% construction-triggered landslide events occurred during 2004-2016, followed by China (9%), Pakistan (6%), the Philippines (5%), Nepal (5%) and Malaysia (5%).



- **Weather Induced Landslide:** Landslide occurrence peaks during the northern hemisphere summer, when cyclones, hurricanes and typhoons are more frequent and the monsoon season brings heavy rain to parts of Asia.
- **Illegal Mining:** Landslides triggered by hill-cutting are a problem in rural areas, where many people illegally collect material from hill-slopes to build homes. Fatal landslides were found to be more common in settlements, along roads and at sites rich in precious resources.
- **Earthquake-Triggered Landslides:** The landslide-prone Himalayan terrain also belongs to the maximum earthquake-prone zones where earthquakes of Modified Mercalli intensity VIII to IX can occur, and thus, are also prone to earthquake-triggered landslides.
- **Flash Flood Phenomenon:** Landslide Lead to formation of artificial lake, which can trigger flash flood in the region affected.
- **Economic Cost:** Landslides are the third most deadly natural disasters on earth with \$400 billion being spent annually on landslide disaster management. About 70 hydropower projects in Himalayas at risk of quake-triggered landslides.

National Disaster Management Guidelines on Management of Landslides and Snow Avalanches

- Developing and continuously **updating the inventory of landslide incidences** affecting the country.
- **Landslide hazard zonation mapping** in macro and meso scales after identification and prioritisation of the areas in consultation with the Border Roads Organisation, state governments and local communities.
- Taking up pilot projects in different regions of the country with a view to carry out **detailed studies and monitoring of selected landslides** to assess their stability status and estimate risk.
- **Setting pace setter examples** for stabilisation of slides and also setting up early warning systems depending on the risk evaluation and cost-benefit ratio.
- **Complete site specific studies** of major landslides and plan treatment measures, and encourage state governments to continue these measures.
- **Setting up of institutional mechanisms** for generating awareness and preparedness about landslide hazard among various stakeholders.
- **Enhancing landslide education, training** of professionals and capacity development of organisations working in the field of landslide management.
- **Capacity development and training** to make the response regime more effective.
- **Development of new codes and guidelines** on landslide studies and revision of existing ones.
- **Establishment of an autonomous national Centre** for landslide research, studies and management.

Geological Survey of India (GSI)

- GSI is the “nodal agency” for the Indian government for landslide data repository and landslide studies and it is engaged in all types of landslide and slope stability investigations.
- It functions under **Ministry of Mines**.

National Landslide Susceptibility Mapping (NLSM), 2014

- GSI initiated the national programme to complete generation of **Landslide Susceptibility Maps** covering an area of about 1.71 lakh sq km by the end of 2018.
- Project will offer seamless landslide susceptibility maps and landslide inventory maps of the entire landslide-prone areas of India, which can be utilised by the architects of disaster management groups and perspective planners.

A **National Landslide Risk Mitigation Project (NLRMP)** is being run at NDMA. Under this project a landslide site in Mizoram has been selected.

International Programme on Landslides (IPL),

- IPL aims to conduct international cooperative research and capacity building on landslide risk mitigation, notably in developing countries. Protection of cultural and natural heritage will be addressed for the benefit of society and the environment. The activities of IPL will contribute to the **International Strategy for Disaster Reduction (ISDR)**.

5.7. GLACIAL LAKES OUTBURST FLOODS

Why in news?

Disaster managers and scientists in Sikkim are siphoning out excess water from lake to prevent it from **Glacial Lakes Outburst Floods**.

More on News

- **Glacial Lakes Outburst Floods (GLOFs)**, are a subject of concern in the Sikkim Himalayan region as several lakes have been formed due to melting of scores of glaciers in the region.
- In order to prevent any disasters due to outbursts from such lake, a project was started in the South Lhonak Lake where in high density polyethylene (HDPE) pipes have been installed to siphon off water from the glacial lake.
- Transporting the pipes to high altitudes poses serious challenges. Yaks are used to carry the pipes and other materials to the lake situated at 17,000 ft. The way to the lake is full of steep and narrow passages.
- Sikkim has installed a **Lake monitoring and information System** (water level Sensor) at South Lhonak lake. The sensor gives the water level of the lake and also monitored the lake level when there is sudden fluctuation in water level

What is Glacial Lakes Outburst Floods?

- Floods caused due to outburst of glacial lakes is known as Glacial Lakes Outburst Floods.
- The moraine wall act as a natural dam, trapping the melt water from the glacier and leading to the formation of a glacial lake.
- Retreat of glaciers in the wake of global warming is expected to increase the number of glacier lakes and also expand the size of the existing ones.
- The formation of moraine-dammed glacial lakes and glacial lake outburst flood (GLOF) is major concern in countries such as Bhutan, Tibet (China), India, Nepal and Pakistan.
- The Himalayan states, Uttarakhand, Himachal Pradesh and Jammu and Kashmir, are surrounded by about 200 potentially dangerous glacial lakes formed by glacial melt but till date no early warning system is in place to evacuate people in case these lakes breach their thin walls of debris and loose soil.
- In addition, this process can be further influenced if more glacial lakes are formed due to increase in debris cover and if black carbon (soot) is transported in accumulation areas of the glaciers.

Factors triggering GLOFS

- **Rapid slope movement** into the lake and melting of ice incorporated in dam are both directly and indirectly linked to glacier retreat which have increased due to anthropogenic factors.
- Retreat of glaciers in the wake of **global warming** increases the number of glacier lakes and also expand the size of the existing ones.
- **The radiative balance**- the balance between the amount of energy received by the earth from the sun and the energy it emits back has changed in the Himalayas in recent years due to human activities,. This imbalance "directly or indirectly results in the common incidents of fast glacier melting, glacial lake outbursts floods.
- In recent years, increasingly erratic and **unpredictable monsoon rainfall patterns** and increased climate variability have led to severe and frequent flood disasters.
- The contributing **human activities** include mass tourism; developmental interventions such as roads and hydropower projects; and the practice of slash and burn type of farming in certain pockets of the Indian Himalayan region.
- **Black carbon** also plays important factor which melts the ice on the mountain due to albedo effect.
- Other Factors like Cascading processes (flood from a lake situated upstream), Earthquake, Melting of ice incorporated in dam/forming the dam, Blocking of subsurface outflow tunnels, Long-term dam degradation also trigger GLOFS.

Impact

- **Catastrophic Societal Impacts:** The sudden and intense flooding that results can be catastrophic for nearby communities. Fatal GLOFs have been documented in the Andes and in the Hindu Kush-Himalaya region.
- **Impact on Ocean Circulation:** Major Glacial lake outburst floods from ice dammed lakes into oceans are considered to change circulation patterns by reducing the salinity of the surface layer of the ocean and influence the global climate.
- **Impact on Geomorphology:** GLOFs, have significant potential to influence erosion-accumulation interactions and sediment dynamics like bank and depth erosion of the stream/river channel, meander shift, and, in some cases, replacement of existing channels and formation of new ones or formation of erosional terraces.

Measures

- **Access to early warning systems and timely information** is key to minimizing the adverse impacts of floods and improve the efficiency of the response.
- **Continuous monitoring** is needed to **understand changing dynamics of Himalayan glaciers**.

- Indian Space Research Organisation (ISRO) among many other organisations, is also engaged in **glacial lake monitoring** and water bodies in the Himalayan region of Indian River Basins.
- To identify hazardous lakes, **remotely sensed data-based methods** can be installed.
- Prevention or mitigation of the magnitude of the flood by **dam remediation like artificial dams, tunnels, open cuts, concrete outflows, flood protection walls**.
- Mitigation measures are important including **community preparedness, GLOF hazard mapping, vulnerability assessment, hazard zone demarcation, and identification of GLOF safe evacuation sites, alternate community based early learning warning systems and identifying vulnerable communities**
- There is the need to set up a disaster database, improve post-disaster damage and needs assessments and have systematic ways of capturing climate change/variability impacts in disaster risk management and development sectors.

6.1. FOOD FORTIFICATION

Why in news?

- The Food Safety and Standards Authority of India (FSSAI) has recently released a report on food fortification.

Background

- Nearly 70% of people in India consume less than half** of their recommended dietary allowance(RDA) of micronutrients. The deficiency of micronutrients is also known as "**hidden hunger**".
- Fortification is being promoted through both **open market** and **government schemes** like ICDS,MDMS,PDS,etc.
- In National Nutrition Strategy (Kuposhan Mukt Bharat), food fortification has been given a major thrust.
- FSSAI has operationalised standards for fortification of:
 - wheat- flour-rice (with iron, Vitamin B12 and folic acid)
 - milk & edible oil (with Vitamins A and D)
 - double-fortified salt (with iodine and iron).
- It has also introduced the **+F logo** to identify fortified foods.
- It has also launched the **Food Fortification Resource Centre (FFRC)** to promote large-scale fortification of food across India.

Food Safety and Standards (Fortification of Foods) Regulations, 2018

- It has prescribed **standards** for fortification of various food products such as All fortified foods must not fall below the minimum level of micro nutrients.
- Quality assurance:**
 - Every manufacturer and packer of fortified food shall give an undertaking on quality assurance
 - random testing of fortificants and fortified food
- Every package of fortified food shall **carry name of the fortificant** and the **logo** to indicate.
- The Food Authority shall take steps to **encourage the production, manufacture, distribution, sale, and consumption**

What is food fortification?

- Food fortification is the **deliberate addition of one or more micronutrients to food** so as to correct or prevent a deficiency and provide a health benefit .
- The concentration of just one micronutrient might be increased (e.g. the iodization of salt) or there might be a whole range of food-micronutrient combinations.
- Food fortification is a "**complementary strategy**" and not a replacement of a balanced & diversified diet to address malnutrition.

Some International experiences

- Salt iodization** was introduced in the early 1920s in both Switzerland and the United States of America and has since expanded progressively all over the world.
- In **Venezuela**, wheat and maize flours have been fortified with iron has shown significant reduction in iron deficiency.
- In **Morocco**, fortification of double fortified salt showed improved results in reduction of anaemia.

Advantages of food fortification

- Health benefits:**
 - Elimination of micronutrient deficiency diseases like anaemia, goitre, xerophthalmia, etc. which are prevalent in India. For eg. according to the National Family Health Survey, around 50% of women and children in India suffer from anaemia.
 - Food fortification can be used as an effective tool to counter vitamin D deficiency. (prevalent in more than 70% of Indian population).
 - It reduces the risk of death from infectious diseases.
- Wide population coverage:** Since the nutrients are added to staple foods that are widely consumed, it enable to improve the health of a large section of the population.
- Socio-culturally acceptable:** It does not require any changes in food habits and patterns of people being targeted.
- Cost-effective:**
 - The Copenhagen Consensus estimates that every 1 Rupee spent on fortification results in 9 Rupees in benefits to the economy.
 - Technology to fortify food is simple and easy to implement.
- Complements Food security:** Nutritional security is much needed to reap the dividends of implementing the food security act.

Challenges

- Voluntary nature:** Fortification **continues to be voluntary** rather than mandatory leading to limited efforts to fortify by state governments and private sector.
- Poor implementation by states:** Although some states have adopted fortification in ICDS, MDMS and PDS, but due to lack of definitive policy guidelines, budgetary constraints, technical knowledge and logistic support, states have not adopted fortification in a holistic manner.
- Weaknesses of FSSAI:** It lacks resources and manpower to effectively carry out its mandate.
- Lack of awareness:** There is a lot of misinformation and ignorance about the usage and benefits of fortified food as of now.

Way forward

- **Nationwide Implementation:** Pan-India implementation of fortification via government schemes would amount to only an increment of 1 percent of the total budget allocated annually.
- **Support to states:** Merely issuing orders and notifications from Government of India will not suffice as state governments require hand-holding support and should be sensitised about the benefits of fortification and must be enabled to procure fortified staples in various programs.
- **Ensure Standards:** Compliance with FSSAI standards w.r.t macronutrient content and quality must be strictly enforced.
- **Awareness:** A mass awareness campaign about food fortification is needed to scale up demand from consumers in the open market.
- **Promote food processing industry:** It will go a long way in improving the nutritional value of staple food.

6.2. FIXED DOSE COMBINATIONS (FDCS)

Why in news?

Recently, the Ministry of Health and Family Welfare in exercise of powers conferred by the Drugs and Cosmetics Act, 1940 has prohibited the manufacture for sale, sale or distribution for human use of 328 Fixed Dose Combinations (FDCs) and restricted the manufacture, sale or distribution of six FDCs subject to certain conditions.

Background

- In 2016, the health ministry had banned 349 FDCs, claiming they were "**unsafe**" and "**irrational**" for consumption on the recommendation of **Chandrakant Kokate committee (2015)**. However, the matter was contested by the affected manufacturers in various High Courts and the Supreme Court of India.
- The Drugs Technical Advisory Board on a direction from Supreme Court, formed **Nilima Shirasagar committee** to review the safety, efficacy and therapeutic justification of 344 fixed dose combination (FDC) drugs. The committee also recommended the continuation of the ban along with other observations such as:
 - FDCs were formulated without due diligence, with dosing mismatches that could result in toxicity.
 - Pharma companies whose products were under scrutiny provided "**irrelevant**" **data** that relied on biased studies and almost 95%, failed to prove safety, rationality and compatibility of these FDC.
 - Experts believe combination drugs to be unsafe because unaware physicians can prescribe wrong dosage that can in turn make human body resistant to treatment.
 - Over the years, India has become a "**dumping ground**" for **irrational FDCs** that are not approved in other countries for consumption.
- The DTAB in its report recommended that there is no therapeutic justification for the ingredients contained in 328 FDCs and that these FDCs may involve risk to human beings.
- Market size of the banned drugs is estimated to be around Rs 20-22 billion and will impact the country's top drugmakers.

About FDC

- An FDC is a cocktail of two or more therapeutic drugs packed in a single dose. Several cough syrups, painkillers and dermatological drugs in India are FDCs.
- **Benefits:** They are known to offer specific advantages over the single entity preparations, such as increased efficacy, and/or a reduced incidence of adverse effects, possibly reduced cost and simpler logistics of distribution relevant to situations of limited resources
- **Cheaper for consumer:** patient can buy just one FDC medicine to treat multiple illness symptoms.
- **Good For Business:** For pharma companies, FDC's are cheaper and easier to combine existing active ingredients to make new products than to discover new medicines. They are also not covered under the ambit of price control regime.
- According to All India Drugs' Action Network (AIDAN), the market of unsafe, problematic FDCs in India is at least one fourth of the total pharma market valued at ₹1.3 trillion.

Drug regime in India

- Drugs are regulated by the **Drugs and Cosmetics Act, 1940** and **Drugs and Cosmetic Rules, 1945**.
- **Central Drugs Standard Control Organization (CDSCO)**, under the Ministry of Health and Family Welfare, is the authority that approves new drugs for manufacture and import.
- State Drug Authorities are the licensing authorities for marketing drugs.
- **Drugs Technical Advisory Board (DTAB):** It is the highest statutory decision-making body under the Union Health ministry on technical matters. It is constituted as per the Drugs and Cosmetics Act, 1940.

6.3. HYDROGEN-CNG

Why in News?

Delhi is all set to be India's first city to launch hydrogen-enriched CNG (HCNG) buses in 2019.

More on News

- The decision follows a Supreme Court direction for the Delhi government to explore the feasibility of introducing zero emission and cost-effective hydrogen-run public buses. Also, the Ministry of Petroleum & Natural Gas had issued a draft notification, following a NITI Aayog proposal, for H-CNG as an automotive fuel.
- In order to help study the technology as well as its infrastructure requirements, the government has tied up with Indian Oil Corporation Limited (IOCL), which is a public sector undertaking, to initially induct 50 HCNG-fuelled buses.
- The performance of buses as well as the reduction in emissions will be tested by mixing 18 to 20 per cent of hydrogen to compressed natural gas (CNG) in every bus.

What is HCNG?

- HCNG is a vehicle fuel which is a **blend of compressed natural gas and hydrogen**, typically 8-50% hydrogen by volume.
- Existing natural gas engines can be used with HCNG, although higher hydrogen blends require re-tuning of the engines for optimal performance. Studies indicate that HCNG mixtures with 20- 30% hydrogen by volume are optimal for vehicle performance and emissions reduction.

Advantages of HCNG

- No retrofitment required**- It does not need any modification of the engine or retrofitment. Only some calibration is required thus allowing governments and agencies to promote the use of hydrogen to greater number of people at less cost.
 - It is usable with the existing CNG infrastructure. It requires only small hydrogen storage and a column for the mixing of hydrogen with natural gas. Safety properties are similar to CNG.
- Lower pollutant emissions**- Global HCNG testing to date has demonstrated the fuel's potential to reduce nitrous oxide (NO_x), carbon dioxide (CO₂), carbon monoxide (aprx 70%) and hydrocarbon emissions (aprx 15%) vehicle emissions compared to traditional CNG.
 - Hydrogen addition to natural gas can **decrease engine's unburned hydrocarbons** and speed up the combustion process.
- Improves fuel economy**- It improves the engine efficiency, lowers fuel consumption upto 5 per cent as compared to a CNG bus.

The thermal efficiency of both Natural gas and HCNG increases with increase in load which makes it an ideal fuel for high load applications and heavy-duty vehicles.

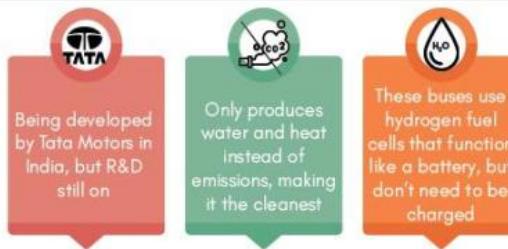
Challenges

- Determining the most optimised hydrogen/compressed natural gas ratio**- If the hydrogen fraction increases above a certain limit, it will result in abnormal combustion such as pre-ignition, knock and backfire occur.
- Ensure safe infrastructure**- Probably most evident challenge for wide-spread use of the new fuel is the current lack of infrastructure. Similar to other gaseous fuels, natural gas and hydrogen are both lighter than air, therefore if there is a leak it will quickly disperse into air with adequate ventilation.
- Cost and continuous availability**- The cost of Hydrogen is higher than cost of Natural gas resulting in HCNG being costlier than CNG. Further, continuous availability of HCNG needs to be assured before embarking on its major use in IC engines.
- Continued engine performance**, emissions and durability testing in variety of engine types and sizes need to be developed to increase consumer and manufacturer confidence.

Conclusion

Most vehicles today run on either diesel or petrol leading to higher pollution levels. Rising pollution levels have led to the need for cleaner fuels. Hence we need to re-examine our sources of energy. In the current scenario, there is clear potential for the use HCNG as a method of reducing emissions from CNG vehicles. However, although there is currently a large amount of research taking place regarding the HCNG fuel, there are certainly many steps to take before wide-spread implementation can occur.

HYDROGEN BUSES



HYDROGEN-CNG BUSES



Related Information

- Before this, in 2002, to help the deteriorating condition of pollution in Delhi, the government had introduced CNG (Compressed Natural Gas) buses.
- Besides this the pollution is expected to be handled by following Bharat Stage emission norms throughout the country. Recently, Delhi became the **first city** in the country to **supply ultra-clean Bharat Stage (BS) VI grade fuel** (both petrol and diesel).

6.4. WORLD'S FIRST HYDROGEN FUEL CELL TRAIN

Why in News?

Germany has rolled out world's first hydrogen fuel cell powered trains called **Coradia iLint**.

About the Train

- It was manufactured by Alstom, Europe's largest railway manufacturers.
- Coradia iLint is world's first noise free, zero emissions trains running at 140km/hr and covering 1000 km on a full tank of hydrogen with seating capacity of 150 passengers.
- The train will be refuelled from a 40 foot high mobile hydrogen steel container.
- Its running cost is cheaper than the diesel trains.

About Hydrogen fuel cell

- It is a fuel cell that combines hydrogen and oxygen to produce electricity with water and steam as the only biproducts.
- The excess energy can be stored on board in ion lithium batteries.
- It is a climate friendly fuel as it does not emit carbon dioxide or particulate matter as the case with conventional fuels like diesel, coal etc.

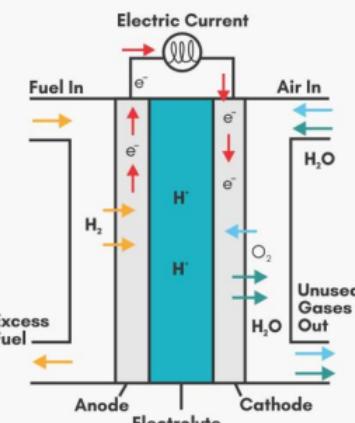
How the hydrogen fuel cell works?

- A fuel cell is composed of an **anode**, a **cathode**, and an **electrolyte membrane**.
- A fuel cell works by passing **hydrogen through the anode** of a fuel cell and **oxygen through the cathode**.
- At the anode, the hydrogen molecules are split into electrons and protons.
- The **protons pass through the electrolyte membrane**, while the **electrons are forced through a circuit, generating an electric current and excess heat**.
- At the cathode, the protons, electrons, and oxygen combine to produce water molecules.
- Unlike **traditional combustion technologies that burn fuel**, fuel cells **undergo a chemical process** to convert hydrogen-rich fuel into electricity.
- Fuel cells **do not need to be periodically recharged like batteries**, but instead **continue to produce electricity as long as a fuel source is provided**.

Way forward

Currently, the cheapest way to produce hydrogen is by burning natural gas at high temperature which emits carbon dioxide thus defeating the very purpose of using hydrogen fuel trains. The technology based renewable energy production of hydrogen from the water technology is required for a sustainable and cost effective rail transport for better tomorrow.

HOW HYDROGEN FUEL CELL WORKS



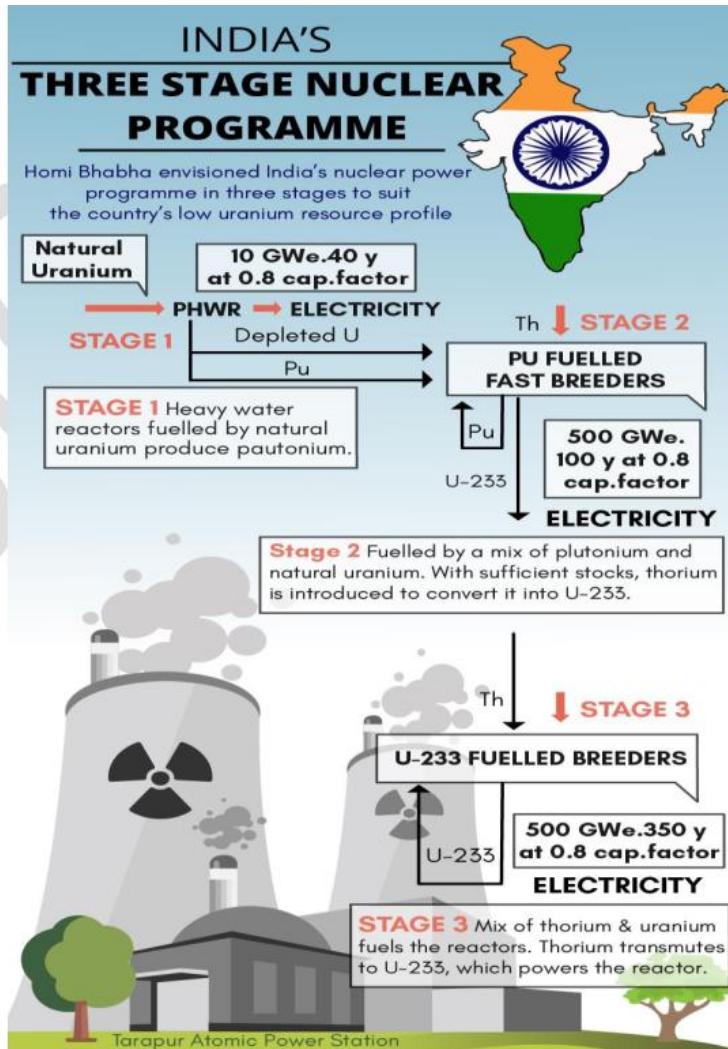
6.5. APSARA - U

Why in news?

A swimming pool type research reactor “Apsara-upgraded” has become operational at Bhabha Atomic Research Centre (BARC), Trombay.

Research reactors

- Research reactors are nuclear reactors used for research, radioisotope production, education, training etc.
- Research reactors are simpler than power reactors and operate at lower temperatures.
- Like power reactors, the core needs cooling and usually a moderator is used to slow down the neutrons.
- They produce neutrons for use in industry, medicine, agriculture, forensics, etc which is their main function. Hence most research reactors also need a reflector to reduce neutron loss from the core.
- Research reactors are the back bone of a country's Nuclear Programme.
- Currently Apsara-u, Dhruva and kamini are the research reactors operational in India.



More about Apsara-U

- It has been made indigenously.
- It is the upgraded version of “Apsara”, the first research reactor in Asia which had became operational in 1956 and was shut down in 2009.
- It uses plate type dispersion fuel elements made of Low Enriched Uranium (LEU).
- Owing to higher neutron flux, this reactor will increase indigenous production of radio-isotopes for medical application by about 50%.
- It would also be used for research in nuclear physics, material science and radiation shielding.

Kamini (Kalpakkam Mini)

- KAMINI is the only reactor in the world operating with 233U fuel which is produced by the thorium fuel cycle harnessed by the neighbouring Fast Breeder Test Reactor reactor.
- It is very important for the third stage of Indian nuclear power programme.

Dhruva (at BARC in Trombay)

- It is India's largest research reactor.
- It is the primary source of weapons-grade plutonium.

6.6. PARTICLE DECAY

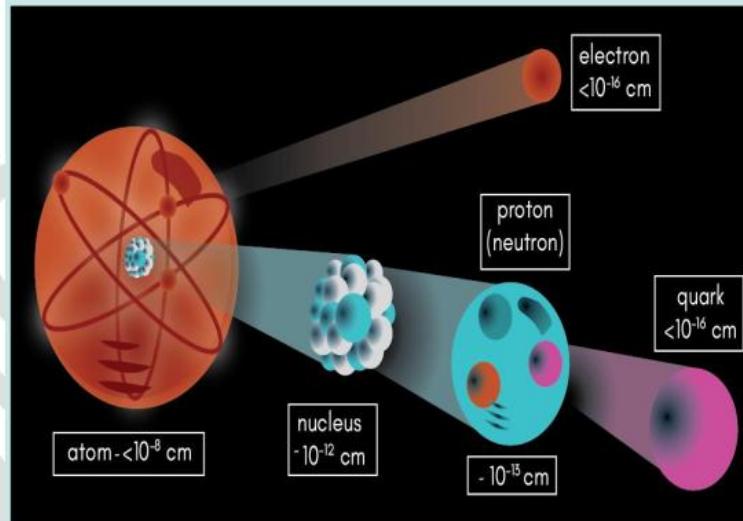
Why in News?

Recently, Scientist at **CERN** observed the Higgs boson decaying to fundamental particles known as bottom quarks.

More on news

- Higgs bosons decay into pairs of the following particles in the following percentages: bottom quarks (58 percent), W bosons (21 percent), Z bosons (6 percent), tau leptons (2.6 percent) and photons (0.2 percent).
- **Significance:** It validates the theory of Standard Physics which states that about 60% of the time a Higgs boson will decay to a pair of bottom quarks.
 - Standard Model: It's built upon the idea that the Higgs field endows quarks and other fundamental particles with mass.
 - Standard Model **doesn't include dark matter** that makes up 85 percent of mass in the universe—or a description of how gravity works at the quantum level.
- A quark is **one of the fundamental particles** in physics. They **join to form hadrons, such as protons and neutrons**, which are components of the nuclei of atoms.
- The study of quarks and the interactions between them through the strong force is called particle physics.
- The antiparticle of a quark is the antiquark. **Quarks and antiquarks are the only two fundamental particles that interact through all four fundamental forces of physics:** gravitation, electromagnetism, and the strong interaction and weak interactions.
- A quark **exhibits confinement**, which means that the quarks are not observed independently but always in combination with other quarks. This makes determining the **properties (mass, spin, and parity) impossible to measure directly**.
- There are **six flavors of quarks:** up, down, strange, charm, bottom, and top. The flavor of the quark determines its properties.

Particle Decay (higgs boson)



About Higgs Boson

- It is popularly known as the **God particle** and is responsible for giving mass to fundamental subatomic particles.
- It was discovered by **Large Hadron Collider (LHC)** at CERN, the European Organization for Nuclear Research.
- CERN is the world's largest nuclear and particle physics laboratory. At CERN, scientists and engineers are probing the fundamental structure of the Universe.
- LHC accelerator hosts two large-particle physics detectors capable of observing Higgs bosons — the **Compact Muon Solenoid (CMS)** and **A Toroidal LHC Apparatus (ATLAS)**.

6.7. ICESAT-2

Why in news?

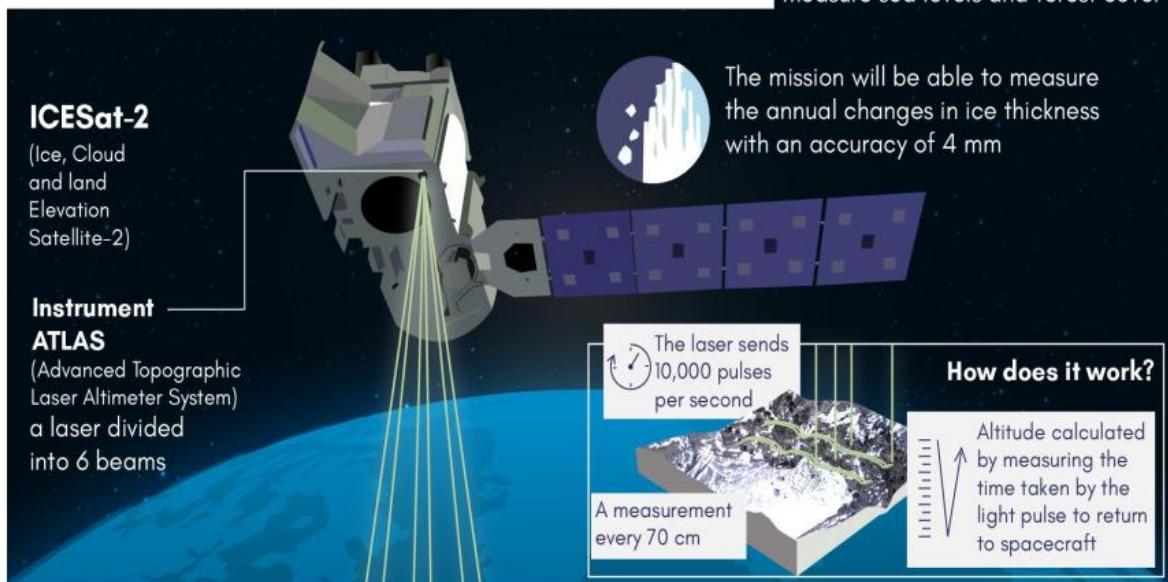
Recently NASA satellite named '**Ice, Cloud and Land Elevation Satellite-2 (ICESat-2)**', was launched.

What is ICESat?

- ICESat (Ice, Cloud, and land Elevation Satellite) is the benchmark **Earth Observing System mission** for measuring ice sheet mass balance, cloud and aerosol heights, as well as land topography and vegetation characteristics.
- The ICESat, was launched in 2003 and ended in 2009. From it, scientists learned that sea ice was thinning, and ice cover was disappearing from coastal areas in Greenland and Antarctica.
- ICESat-2 continues key elevation observations of the cryosphere begun by the original ICESat mission (2003 to 2009) and **Operation IceBridge** airborne efforts (2009 through present), to provide a continuous long-term record of change in the beginning of the 21st century.

A laser in space to measure changes in polar ice

NASA's ICESat-2 mission will also measure sea levels and forest cover



Why is this mission important?

- ICESat-2 data will help researchers **narrow that range of possibilities to forecast sea level rise** with greater certainty, allowing communities to be better prepared.
- While scientists routinely measure sea ice coverage from satellite images, they **lack region-wide sea ice height measurements** that would allow them to derive thickness and volume—height measurements that ICESat-2 will provide.
- Beyond the cryosphere, ICESat-2 will also survey heights of the world's forests, lakes, urban areas, cloud cover and more, **adding a detailed third dimension to flat images of Earth** from space.

6.8. POLARIMETRY DOPPLER WEATHER RADAR

Why in news?

The Indian Space Research Organisation (ISRO) recently launched the **Polarimetry Doppler Weather Radar** at Satish Dhawan Space Centre, Sriharikota.

More about the news

- The **Polarimetry Doppler Weather Radar** provides advanced information, enhances the lead-time essential for saving lives and property in the event of a natural disaster associated with severe weather.
 - The severity of the weather systems can be quantitatively estimated more accurately and more precise advanced warnings can be generated for saving human lives and property.
 - While conventional radars are able to track and predict cyclones, the Doppler Weather Radar provides detailed information on a storm's internal wind flow and structure.
 - The polarimetric capability of the radar will significantly improve the accuracy of rainfall estimation leading to accurate and timely flash flood warnings, according to ISRO's earlier release.
- The radar has been indigenously developed by **Bharat Electronics Ltd (BEL)**, Bengaluru.
- It is the seventh radar of such type manufactured in the country under "Make in India".

7.1. SC JUDGEMENT ON SABARIMALA ISSUE

Why in News?

Recently, Supreme Court granted women of all ages the right to enter the Sabarimala temple.

More on News

- The Supreme Court in **Indian Young Lawyers' Association v/s State of Kerala Case** declared **Rule 3(b) of the Kerala Hindu Places of Public Worship (Authorisation of Entry) Act of 1965**, which authorizes restriction on women "of menstruating age", as ultra vires the Constitution.
- Supreme Court set aside a Kerala High Court judgment of 1991 that upheld the prohibition, pointing that the celibate nature of the deity was "a vital reason for imposing this restriction on young women".

Arguments against restrictions of women:

- Banning entry was derogatory for women:** Morality must not be viewed narrowly from the perspective of an individual, a section or religious sect. Individual dignity of women could not be at the mercy of a mob.
- Prohibition was a hegemonic patriarchy:** Patriarchy in religion cannot trump the freedom to practise religion.
- Exclusion on the grounds of biological and physiological features was unconstitutional:** it violated the right to equality and dignity of the women under Article 14 and 15 of the Constitution. Moreover, prohibition was a form of untouchability and was thus against Article 17 of the Constitution.
- Prohibition was not an essential practice of religion under Article 25 of the Constitution:** thus it was not covered under the right to freedom of religion.
- Fundamental Rights are meant for individuals and not deities or idols:** The Fundamental Rights guaranteed under Part III of the Constitution recognizes the individuals as a basic unit. The argument that the right to preserve the celibacy of the deity is a protected constitutional right does not apply.
- Right to worship is equally available to men and women:** Woman's right to pray was not dependent on any law but it is a constitutional right. Religion cannot become a cover to exclude and deny this basic right to worship to women.

Article 14: provides for Equality before law and equal protection of the law.

Article 15: Prohibits discrimination on the grounds only of religion, race, caste, sex or place of birth.

Article 17: Abolishes untouchability and forbids its practice in any form.

Article 25 provides that all persons enjoy the right to freely practise their religion.

- The '**essentiality test**' was evolved by the Supreme Court to determine whether a religious practice was protected under Article 25.
- The essential practice of a religion is beyond interference by the State and subject only to the restrictions on the basis of the grounds contained in Article 25.
- On the other hand, a non-essential religious practice is not a fundamental right and can be restricted by the State on any reasonable ground.

Arguments in favor of restrictions on women:

- Religious communities/denominations should decide what constitutes an essential religious practice:** It should not be decided by judges on the basis of their personal viewpoints.
- Judicial Overreach:** by determining whether a particular practice or custom is essential or integral to a religion, the court leaves the rational world of laws and constitutional rights and enters into the realm of theology, thus leading to judicial overreach.
- Judgment confuses diversity with discrimination:** it ignores the ground social realities of India and immense diversities. Also judges must take special care while dealing with a sensitive issue like religion.
- India being a pluralistic society with diverse faiths, constitutional morality gave freedom to practice even irrational or illogical customs and usages:** Constitutional morality required harmonization of rights of all persons, religious denominations or sects, to ensure that the religious beliefs of none were undermined.
- Freedom to practice their beliefs as enshrined in Article 25 of the Constitution:** Ayappa devotees had attributes of a religious denomination such as distinct names, properties, etc. Also Sabarimala, temple was not funded out of the Consolidated Fund. Temple Management thus contends that they were allowed to frame rules for the shrine without State's interference.
- Historic Origins of the restrictions:** as the entry of women and girls of menstruating age was antithetical to the "Naishnika Brahmachari" (celibate) nature of the deity, the prohibition was not based on misogyny.
- It was physiologically difficult for women to observe a 41-day penance for the deity:** the pilgrimage requires tough processes to be carried out for 41 days which would be difficult for women.
- Challenging religious practices:** In a pluralistic society comprising of people with diverse faith, belief and traditions, to entertain PILs challenging religious practices followed by any group, sect or denominations, could cause serious damage to the constitutional and secular fabric of the country.

- **Unique geographical aspects and specific circumstances at the hill temple should have been considered:** given that the temple lies at ecologically sensitive Western Ghats, providing extended facilities for women devotees would require expansion and would impact negatively on the environment.

Way Forward

- Internal pressures to change secure long-lasting reforms with less of a backlash than when reforms are imposed by the law. Religious reforms in matters that positively affect life and liberty does call for judicial intervention, however, Courts cannot be substitute for social reform movements.
- The ruling will have wider impacts on other similar customs and practices at other places of worship too.
- The Temple management must provide adequate amenities for women devotees to smoothly implement the SC order.

7.2. DOWRY HARASSMENT LAW

Why in News?

The Supreme Court **restored an immediate arrest provision** in the dreaded **Section 498A, IPC**

Background

- The Supreme Court last year ordered that '**family welfare committees**' to be set up in districts and these committees were supposed to act as a **vanguard against "disgruntled wives"** using the anti-dowry harassment provision of **Section 498-A** of the Indian Penal Code (IPC) as a "**weapon**" against their husbands and in-laws, young and old, rather than as a "**shield**".
- It had held that no arrest should normally be effected on dowry harassment complaints until the committee confirms the genuineness. Even the police could register an FIR only after the committee concerned cleared the complaint as valid and not frivolous.

Section 498A IPC

Husband or relative of husband of a woman subjecting her to cruelty—Whoever, being the husband or the relative of the husband of a woman, subjects such woman to cruelty shall be punishable with imprisonment for a term which may extend to three years and shall also be liable to fine.

New verdict

- Supreme Court in its latest verdict held that **such panels had no place under the established criminal procedural law** and they were beyond the Code of Criminal Procedure Code.
- It **restored police's power to immediately register an FIR** and act on a dowry harassment complaint filed by a married woman.
- Those arrested for cruelty to a married woman over dowry can **approach the courts for bail** to prevent the alleged misuse of the law.
- The offence is **both non-cognisable and non-bailable**, which implies that bail can only be granted at the discretion of a magistrate. The bail petitions will be heard the same day as far as possible.

Section 498A IPC- Analysis

Arguments Against

- The law has become a **source of blackmail and harassment** of husbands and others. As once a complaint (FIR) is lodged it becomes an easy tool in the hands of the Police to arrest or threaten to arrest the husband and other relatives without even considering the intrinsic worth of the allegations and making a preliminary investigation.
- When the members of a family are arrested and sent to jail, with no immediate prospect of bail, the **chances of amicable re-conciliation or salvaging the marriage, will be lost** once and for all.
- Pragmatic realities have to be taken into consideration while dealing with matrimonial matters with due regard to the fact that it is a **sensitive family problem** which shall not be allowed to be aggravated.
- It is pointed out that the sting is not in Section 498A as such, but in the provisions of **CrPC making the offence non-compoundable and nonbailable**.

Arguments in favour

- Section 498A and legislations like **Protection of Women from Domestic Violence Act** have been specifically enacted to protect a vulnerable section of the society who have been the victims of cruelty and harassment. The social purpose behind it will be lost if the rigour of the provision is diluted.
- The abuse or misuse of law is not peculiar to this provision. The misuse can however be curtailed within the existing framework of law. For instance, the Ministry of Home Affairs can issue 'advisories' to State Governments to avoid unnecessary arrests and to strictly observe the procedures laid down in the law governing arrests.
- Once the offending family members get the scent of the complaint, there may be **further torture of the complainant** and her life and liberty may be endangered if the Police do not act swiftly and sternly.

Way forward

- The power to **arrest should only be exercised after a reasonable satisfaction is reached** as to the bona fides of a complaint and the complicity of those against whom accusations are made.
- The "**Crime Against Women Cells**" should be headed by well trained and senior lady police officers. These steps would go a long way in preventing the so-called misuse.
- Steps can be taken to effect **conciliation between the spouses in conflict** and the recourse to filing of a charge-sheet under section 498A shall be had only in cases where such efforts fail and there appears to be a *prima facie* case.
- **Counselling of parties should be done by professionally qualified counsellors** and not by the Police.

7.3. ADULTERY

Why in News?

The Supreme Court unanimously struck down Section 497 of the Indian Penal Code (IPC) that makes adultery a punishable offence.

Court's Stand

- Supreme Court held that the 158-year-old law was unconstitutional and fell foul of **Article 21** (Right to life and personal liberty) and **Article 14** (Right to equality). It destroys and deprives women of dignity and offends sexual freedom of women..
- **Mere adultery can't be a crime** unless it attracts the scope of **Section 306 (abetment to suicide)** of the IPC. It can be ground for civil issues including dissolution of marriage but it cannot be a criminal offence.
- Equality is the governing principle of a system and **husband is not the master of the wife**. Women must be treated with equality and any discrimination shall invite the wrath of Constitution. Section 497 IPC which deals with Adultery is absolutely manifestly arbitrary.
- The apex court also declared **Section 198(1) and 198(2) of the CrPC**, which allows a husband to bring charges against the man with whom his wife committed adultery, unconstitutional.

Ambiguities in Adultery Law

- If a married man has sexual intercourse, outside his marriage, but **with an unmarried woman**, that does not amount to an offence under the provision though it also effects the sanctity of marriage.
- If the **husband of a woman connives with another man** for the latter to participate in sexual intercourse with the former's wife, then there would be no adultery.
- A woman committing adultery is not even deemed to be an "abettor" to the offence. Also it **legalises the act of Adultery** if committed by with the consent or connivance of the husband of the woman who is party to the act.
- **Section 198(2) of the Cr. P. C.** allows the initiation of criminal proceedings for Adultery only at the instance of the husband of the adulteress, but the wife of the man party to the act of adultery cannot institute a complaint.

Conclusion

The SC's new verdict that matrimonial issues fall in the realm of civil law and need not be resolved by criminal law is quite rational. The verdict is not promoting adultery; it just says that adultery is not a criminal offence. However, it should also be the duty of court and the society to make sure that the changes are not used to perpetuate adultery.

Section 497

- Section 497 says "Whoever has sexual intercourse with a person who is and whom he knows or has reason to believe to be the wife of another man, without the consent or connivance of that man, such sexual intercourse not amounting to the offence of rape, is guilty of the offence of adultery."
- The offence of adultery entailed a **maximum punishment of five years**, or with fine, or both
- The apex court had earlier on three separate occasions, in 1954, 1985 and 1988, upheld the constitutionality of Section 497.

7.4. SECTION 377 DECRIMINALIZED

Why in news?

In **Navtej Singh Johar v/s Union of India case** the 5 judges Constitutional Bench, headed by Chief Justice declared the parts of Section 377 of the IPC unconstitutional thus decriminalizing homosexuality.

More on News

- The ruling declares that **Section 377 violates Articles 14, 15 and 21** insofar as it penalises any consensual sexual relationship between two adults in private, be it homosexual, heterosexual, lesbian or transgender persons.
- Provisions of Section 377 **remain applicable** in cases of non-consensual carnal intercourse with adults, all acts of carnal intercourse with minors, and acts of bestiality.

- Section 377 of the IPC states:** "Whoever voluntarily has carnal intercourse against the order of nature with any man, woman or animal, shall be punished with imprisonment for life, or with imprisonment of either description for a term which may extend to ten years, and shall also be liable to fine."
- Section 377 does not penalise sexual identities per se. It prohibits sexual acts that are considered against the order of nature.

Background on Section 377 of IPC and related Judicial Pronouncements

- Section 377 of the Indian Penal Code, 1861, (IPC) came into force in 1861 during the British rule to criminalise sexual activities "against the order of nature", including homosexual activities.
- One of the **first legal challenges** to Section 377 came in 1994, when the NGO AIDS Bhedbhav Virodh Andolan (ABVA) filed a petition for its repeal which was dismissed.
- In July 2009, in **Naz Foundation case** the Delhi High Court had decriminalised homosexuality among consenting adults, holding it in violation of Article 14, 15 and 21 of the Constitution of India.
- The Supreme Court in 2013 in the **Suresh Kumar Koushal versus Naz Foundation case** overruled the Delhi High Court's order on the basis of the fact that "minuscule fraction of the country's population constitute LGBTQ," and that in over 150 years less than 200 people were prosecuted for committing offence under the section. Thus, the Supreme Court reinforced the criminalisation of homosexuality.

Two landmark judgments on sexual orientation and privacy

- National Legal Services Authority (NALSA) case, 2014-** In this case concerning the rights of transgender people, the court ruled that there could be no discrimination on the basis of sexual orientation and gender identity.
- In Justice K.S. Puttaswamy (2017), or the 'privacy case'**, a nine-judge Bench ruled that "sexual orientation is an essential attribute of privacy". It said that the "right to privacy and the protection of sexual orientation lie at the core of the fundamental rights guaranteed by Articles 14, 15 and 21 of the Constitution".

Highlights of the verdict

- Sexual autonomy and Right to Privacy:** A person's sexual orientation and autonomy to choose his/her sexual partner is an important pillar and an inseparable facet of individual liberty. It is an expression of identity protected in various ways by Article 14, 15 and 21. Discrimination on the basis of sexual orientation is **violation of freedom of choice and expression** (Article 19).
- Restrain on State Action:** Expression of intimacy is at the **heart of right to privacy**. Right to sexual orientation is a vital personal right falling within the private protective sphere and realm of individual choice and autonomy. **The state has no business to intrude** into these personal matters. This also includes right of persons of the community to navigate public places on their own terms, free from state interference.
- Section 377 of the IPC:** Observing it as "capricious and irrational", the court said that
 - Section 377 fails to make a distinction between consensual and non-consensual sexual acts between competent adults making it manifestly arbitrary. This is violative of the right to equality that includes the right against arbitrariness.
 - Moreover, it does not take into account that consensual sexual acts between adults in private space are neither harmful nor contagious to society.
- Rule of Law instead of Rule by the law:** Court observed that Section 377 provides for rule by the law instead of the rule of law. The rule of law requires a just law which facilitates equality, liberty and dignity in all its facets. Rule by the law provides legitimacy to arbitrary state behaviour. Section 377 "infringed" on the fundamental right to non-discrimination, to live a life of dignity, and privacy guaranteed in the Constitution.

- **Constitutional morality:** It must seek to make a society pluralistic and inclusive. Any attempt to impose a homogeneous, uniform, consistent and a standardised philosophy would violate constitutional morality. It is the responsibility of all three organs of the State to curb any propensity of popular sentiment or majoritarianism.
- **Against Majoritarianism:** While rejecting the logic in Suresh Koushal case(2013) that the LGBTQI community forms only a tiny part of the population, the SC said that Constitution is not for just the majority, the fundamental rights are guaranteed to "any person" and "any citizen", and the sustenance of these rights does not require majoritarian sanction.
- **Health aspect:** Homosexuality is **neither mental illness nor moral depravity**. The SC quoted the Indian Psychiatric Society's view that "homosexuality is **not a psychiatric disorder**", and that same-sex sexuality is a normal variant of human sexuality, much like heterosexuality and bisexuality. Moreover **India's new mental illness law** does not consider homosexuality to be a mental illness.

Analysis of the judgement

- Court pronounced that LGBTQ possess full range of constitutional rights, including sexual orientation and partner choice, LGBTQ has equal citizenship and equal protection of laws. It will help in **enforcing principles of social justice**, based upon the importance of diversity and human rights.
- Court has added a **new test of constitutional morality** to examine the constitutionality of laws enacted by Parliament. The verdict **enlarges the scope of personal freedom** by giving preference to constitutional morality over social morality.
- **Transformative constitutionalism**, that is, treating the Constitution "dynamic, vibrant and pragmatic", responsive to its citizens, and not a lifeless text.
- **Right to Sexual Health:** The verdict highlights both negative and positive obligations of the state to ensure the health and well-being of LGBTQ individuals.
 - **Negative obligations** amount to the state's non-interference with the right to health.
 - **Positive obligations** entail access to health services and treatment facilities. It asks for sensitive counsellors and health workers "to help individuals, families, workplaces and educational and other institutions" to understand sexuality and foster equality, non-discrimination and a respect of human rights.
 - In addition, it would **help efforts at HIV/AIDS prevention** which was hindered due to stigma and fear of prosecution among homosexuals and transgender persons.
- The SC also emphasised that **attitudes and mentality** have to change to accept the distinct identity of individuals and respect them for who they are rather than compelling them to become who they are not.
- The SC urged the government to **broadcast this judgement** and organise **public awareness** campaign to eliminate stigma against LGBTQ people. Government officials, police, should be given periodic sensitisation campaigns.
- The SC also apologised to the India's LGBTQ people (lesbian, gay, bisexual, transgender, queer) and their families, for the delay in providing redressal for the ignominy and ostracism they have suffered.

Current social acceptance of same-sex relationships

- A study spanning 19 states by the Delhi-based Centre for the Study of Developing Societies (CSDS) in 2016 found strong views against homosexuality.
- 61% of the respondents disapproved of homosexual relationship. Only a fourth of the respondents approved of a homosexual relationship.
- The youngest respondents (15 to 17 years of age) were more approving of same-sex relationships than people in an older demographic.

Concerns yet to be addressed

- Since the **ruling would not be retrospective**, so people convicted under Section 377 are left without any effective remedy. According to data from the National Crime Records Bureau (NCRB) between 2014 and 2016, there were 4,690 cases of persons being booked under Section 377.
- Decriminalising gay sex is only the first step towards creating a more equal society. A 2016 survey by Mission for Indian Gay and Lesbian Empowerment (MINGLE) revealed **one in five LGBT employees were discriminated against at the workplace**. Such discrimination has economic costs too. A 2014 World Bank report said India loses \$31 billion due to stigma and exclusion of the community.
- Court judgments or laws cannot remove **social prejudices** on their own. The recent judgment on mob lynching is an example. India's social and political groups will have to show the courage and will power to realise the judgement on ground.
- Supreme Court judgment has merely decriminalised homosexuality but it has **not altered the civil law/Personal laws** on it. The validation of homosexual marriages, inheritance and adoption require legislation on which Parliament has to work.

7.5. NATIONAL DATABASE ON SEXUAL OFFENDERS

Why in News?

India recently became the ninth country in the world to launch a **National Database on Sexual Offenders (NDSO)**. It was rolled out by the Ministry of Home Affairs (MHA) along with Women and Child Development (WCD) Ministry.

Background

- Proposal to setup a national registry was mooted by the government after 2012 Nirbhaya gang-rape case.
- The **Criminal Law Act, 2018** provides for a national registry of sexual offenders.
- **Need for NDSO:** There has been an overall rise in crimes against women from 3,29,243 in 2015 to 3,38,954 in 2016 with a 12% rise in cases of rape. It will help enabling justice and monitor an offender's future behavior.

Features of NDSO

- **Contains details of around 4.5 lakh people convicted of various sexual offences:** It will include names and aliases, address, photograph, identifiers including PAN and AADHAAR, criminal history, fingerprints and palm prints among others of the people convicted under charges of rape, gang-rape, Protection of Children from Sexual Offences Act (POCSO) and of "eve-teasing", from 2005 onwards.
- **Maintained by National Crime Records Bureau (NCRB):** It will also track regular updation of records by the State Police.
- **Accessible only to Law Enforcement Agencies:** for the purpose of investigation and monitoring cases of sexual offences and employee verification.
- **Would not compromise any individual's privacy:** will have details of persons above 18 years of age and appeals against a conviction will have to be updated by state prisons. An accused can be tracked until an acquittal on appeal.
- **Help keep track of released convicts who have moved from one place to another:** address concerns over sexual assaults in sensitive cases like Children's shelter homes and increasing incidents of NRI grooms abandoning their brides.

About online portal—cybercrime.gov.in:

Another portal – **cybercrime.gov.in** was launched by the government to receive complaints from citizens on objectionable online content related to child pornography, child sexual abuse material, and sexually explicit material such as rape and gang rape.

Cases in other countries:

- Similar databases of sexual offenders are maintained in the USA, UK, Australia, Canada, Ireland, New Zealand, South Africa and Trinidad and Tobago.
- In each of these countries the details of only convicted persons are entered and only USA makes the registry available to the public and communities.

Criticisms of the move

- **Neither serves as a deterrent nor help victims of sexual violence:** In some western countries, there have been demands for a review of the decision of maintaining a registry due to this reason. Also, the data is already available in the CCTNS network and through NCRB annual crime reports, but it didn't act as a deterrent.
- **In India most sex crimes are committed by a person known to the victim:** As NCRB data of 2015 states that out of 34,651 reported rape cases, 33,098 were committed by people known to the victim, these victims might become reluctant to report the cases of sexual violence.
- **Details of the convict are not made open to public:** thus, how this will affect general public is not known.
- **May create a stigma against the accused:** there is a possibility that this registry may tarnish a person's life forever even if he is reformed after serving his legal sentence.

Way Forward

- Though this database could be a considerable step in tackling crime against women, its real utility would depend on how efficiently it is implemented and coordinated between various police agencies.
- Simultaneously we urgently require police reforms to be implemented in spirit, breaking the unholy nexus between police and politicians.
- We need to move towards an inquisitorial criminal justice system from present adversarial system to make it victim centric. Also, Fast Track Courts must be introduced especially for cases of sexual violence to have an effective deterrence.
- Stringent punishment should also be introduced for those filing false complaints, to make the database effective.

7.6. MANUAL SCAVENGING

Why in news?

Recent deaths of five manual scavengers in Delhi highlights how the practice of manual scavenging still persists.

What is Manual Scavenging?

- The International Labour Organisation defines it as the removal of human excreta from public streets and dry latrines, and cleaning septic tanks, severs and gutters.

Legal Position on Manual Scavenging

- Manual scavenging is prohibited by both international instruments, and Indian law. International agencies such as the UNICEF (as a water and sanitary issue), the WHO (as a health issue), the UNDP and the ILO have all called for an end to the practice.
- India's Constitution bans the practice of untouchability, and the **Protection of Civil Rights Act, 1955**, prohibits compelling anyone to practice manual scavenging.
- Aimed specifically at ending manual scavenging, **The Employment of Manual Scavengers and Construction of Dry Latrines (Prohibition) Act, 1993** declared the employment of manual scavengers and construction of dry toilets to be punishable with fines and imprisonment.
- Superseding the 1993 Act, the **2013 Act** goes beyond prohibitions on dry latrines, and outlaws all manual excrement cleaning of insanitary latrines, open drains, or pits. And, importantly, it recognizes a constitutional obligation to correct the historical injustice and indignity suffered by manual scavenging communities by providing alternate livelihoods and other assistance.

However, despite such legal and constitutional safeguards, **manual scavengers remain victims of discrimination**. There are a number of reasons for this.

- Firstly, **sanitation being a State subject**, it requires States' support.
- Secondly, the law requires that the rehabilitation of scavengers has to be carried out as per the existing schemes, even though these very schemes have not been successful in eradicating the practice in the past.
- Thirdly, it is not just the law but the **attitude of public authorities** which aggravates the plight of the scavengers. The Government has repeatedly sought an extension of deadline to curb the problem, exhibiting lack of commitment.

Problems associated with Manual Scavenging

- Every year, hundreds of manual scavengers die, asphyxiated by poisonous gases. According to data collated by the National Commission for Safai Karamcharis (NCSK) there have been **634 deaths related to manual scavenging since 1993**, with Tamil Nadu reporting the highest number of such deaths at 194, followed by Gujarat 122, Karnataka 68 and Uttar Pradesh 51. The figure may change as the process of collecting details from states and updating the data is going on.
- Manual scavenging is not only a caste-based but also a **gender-based occupation** with **90 per cent of them being women**. Households with dry latrines prefer women to clean the

Some facts on Manual Scavenging in India

- The Census of India in 2011 established that more than 2.6 million dry latrines exist in India.
- According to Census of India 2011, there are 740,078 households across the country where human excreta is removed by a person from a dry latrine.
- In addition, the Socio-Economic Caste Census 2011 said that there are 182,505 families in rural India engaged in manual scavenging.
- According to **National Commission for Safai Karamcharis (NCSK)** since January 1, 2017, one person has died every five days, on an average, while cleaning sewers and septic tanks across the country.

Related constitutional provisions

- The Constitution of India, in conformity with the international position, abolishes untouchability (Art. 17) and prohibits caste-based discrimination (Art. 15).
- Under the Constitution human dignity is an inalienable right which is part of the fundamental right to life under Art. 21.
- It is a universally recognized right, endorsed by the Universal Declaration of Human Rights by way of Articles 1, 22 and 23.

Current law on Manual Scavenging

- The Parliament has enacted the '**Prohibition of Employment as Manual Scavengers and their Rehabilitation Act 2013**'.
- It came into force on Dec 6th 2013 in whole of country, except Jammu & Kashmir.
- It intends to
 - Eliminate the insanitary latrines.
 - Prohibit Employment as Manual Scavengers, Hazardous manual cleaning of sewers and septic tanks.
 - Survey of Manual Scavengers and their rehabilitation
- The Act thus prohibits dry latrines and all kinds of manual cleaning of excrement as well as cleaning gutters, sewers, and septic tanks without protective gear.
- Under section 8 of this Act, a person violating this will be punishable with imprisonment for up to two years or a fine of up to 12 lakh or both. For any subsequent violations, the imprisonment may extend up to five years and the fine can go up to 15 lakh or both.
- The Act also has following provisions for **the rehabilitation** of the identified manual scavengers
 - An initial one-time cash assistance
 - Scholarship to the children of manual scavenger
 - Allotment of residential plot and financial assistance for house construction of a ready built house
 - Training in a livelihood skill with payment of stipend of at least Rs 3000 per month
 - Provision for subsidy, along with concessional loans, to at least one adult member of the family.

excreta instead of men as they are located inside the house. According to a **Human Rights Watch report**, on an average, women get paid as little as between Rs 10 and Rs 50 every month per household. It is much less than men who earn up to Rs 300 a day for cleaning sewer lines.

- Manual scavengers are **exposed to the most virulent forms of viral and bacterial infections** that affect their skin, eyes, and limbs, respiratory and gastro-intestinal systems.
- The practice of caste-based exclusion and discrimination shows failure of access and entitlements not only to economic rights, but also to civil, cultural and political rights. It involves what has been described as "**living mode exclusion**"; exclusion from political participation and exclusion and disadvantage from social and economic opportunities.
- **A vicious cycle of poverty and social immobility-** Undermined physical capacity and the feeling of vulnerability and hopelessness associated with this form of discrimination triggers a vicious cycle of impoverishment, low educational attainment, and social immobility for manual scavengers and their families.

Why it still Persists?

- While legally manual scavenging is banned, caste apartheid and poverty perpetuate this practice.
- Scavenging does not require any skill and provides some additional income with no competition, investment and risk.
- These features coupled with the need for cleaning dry latrines and a lack of alternatives, force the scavengers, particularly women, to continue in this occupation.
- It has also been found that in certain cases, scavengers also face a difficulty in taking up other occupations like running shops due to the prevailing social prejudices.

- **Ministry of Social Justice and Empowerment** is responsible for rehabilitation of manual scavengers and it implements the '**Self Employment Scheme for Rehabilitation of Manual Scavengers' (SRMS)**.
- Ministry of Social Justice and Empowerment has associated reputed NGOs like Safai Karamchari Andolan, Rashtriya Garima Abhiyan, Sulabh International etc. for identification of manual scavengers and their rehabilitation.

Way Forward

- Immediate steps should include **holding officials accountable** for properly enforcing relevant laws, including the 2013 Act and The Scheduled Castes and Scheduled Tribes (Prevention of Atrocities) Act, 1989.
- **The Ministry of Social Justice and Empowerment is conducting a survey** to identify manual scavengers. The first phase has identified 53236 manual scavenger across 12 states. There is a need to extend the survey to whole country and create a reliable database so as to extend benefits of 2013 Act to intended beneficiaries.
- Recently Centre launched a challenge asking innovators, NGOs, research institutions, companies and cities to propose technology and business solutions to clean urban sewers and septic tanks without human entry.
- Dalits must be empowered through education and economic uplift. As per NCSK data, the Rs 10 lakh compensation that is mandated under law in case of manual scavenging deaths, has been paid in only 70 of the 123 cases since January 2017. Compensation should be paid immediately.
- The **Swachh Bharat Abhiyan** should make expansion of the sewer network a top priority and come up with a scheme for scientific maintenance that will end manual cleaning of septic tanks to achieve its target of eradicating manual scavenging by 2019.
- A determined approach to end this practice requires a campaign against social prejudice and caste based discrimination.

Technological Solutions to end manual scavenging

- Hyderabad Municipality has deployed 70 **mini jetting machines**. These mini vehicles can have easy access to the narrow lanes and smaller colonies to clear the choked sewer pipes (drainages).
- **Bandicoot**- India's first 'manhole cleaning robot' is an exoskeleton robot which cleans manholes without the need for humans to enter the pit.

7.7. AYUSHMAN BHARAT - PRADHAN MANTRI JAN AROGYA YOJANA

Why in news?

Prime Minister on 23rd September, 2018 launched the world's largest state funded health insurance scheme, Pradhan Mantri Jan Arogya Yojana (PMJAY), at Ranchi, Jharkhand.

Background

In the General Budget 2018-19, the Government announced a major initiative in health sector- **Ayushman Bharat programme** aimed at making path breaking interventions to address health holistically, in primary, secondary and tertiary care systems, covering both prevention and health promotion. Ayushman Bharat has 2 components-

- **Health and Wellness Centre:** As envisioned in The National Health Policy, 2017, 1.5 lakh centres will provide comprehensive health care, including for non-communicable diseases and maternal and child health services. These centres will also provide free essential drugs and diagnostic services.
- **National Health Protection Scheme:** cover over 10 crore poor and vulnerable families (approximately 50 crore beneficiaries) providing coverage upto 5 lakh rupees per family per year for secondary and tertiary care hospitalization. Pradhan Mantri Jan Arogya Yojana is launched as this component.

Features of the Scheme

- **Beneficiary Identification:** PMJAY primarily targets the poor, deprived rural families and identified occupational category of urban workers' families, 8.03 crore in rural and 2.33 crore in urban areas as per the latest **Socio-Economic Caste Census** (SECC) data for both rural and urban areas as well as the active families under the Rashtriya Swasthya Bima Yojana (RSBY). There is no cap on family size and age as well as restriction on pre-existing conditions.
- **Hospitalization cover from inpatient care to post hospitalization care:** The Yojana will provide a coverage up to Rs. 5,00,000 per family per year, for secondary and tertiary care hospitalization through a network of Empanelled Health Care Providers (EHCP). The services will include 1350 procedures covering pre and post hospitalization, diagnostics, medicines etc.
- **Universality:** One unique feature of the PMJAY is its national portability once fully operational. The beneficiaries will be able to move across borders and access services across the country through the provider network seamlessly. The beneficiaries will not need a special card. Their Aadhaar numbers will suffice.
- **Implementation agency:** The **National Health Agency** (NHA) will provide overall vision and stewardship for design, roll-out, implementation and management of Pradhan Mantri Jan Arogya Yojana (PM-JAY) in alliance with state governments.
- **Alliance with the States:** The Scheme is principle based rather than rule based -
 - It allows enough flexibility to states in terms of packages, procedures, scheme design, entitlements as well as other guidelines while ensuring that key benefits of portability and fraud detection are ensured at a national level.
 - The States will have the option of implementing this scheme through a Trust model or Insurance Company based model, though the Trust model will be preferred.
 - States have the option to use an existing Trust/Society or set up a new Trust/Society to implement the Scheme as State Health Agency and will be free to choose the modalities for implementation.
 - Centre's contribution being 60 per cent and the states' 40 per cent.
 - For giving policy directions and fostering coordination between Centre and States, it is proposed to set up **Ayushman Bharat National Health Protection Mission Council (AB-NHPC)** at apex level Chaired by Union Health and Family Welfare Minister.
- **IT based:** In partnership with NITI Aayog, a robust, modular, scalable and interoperable IT platform will be made operational which will entail a paperless, cashless transaction.
- **Fraud detection and Data privacy:** NHA Information Security Policy & Data Privacy Policy are being institutionalized to provide adequate guidance and set of controls on the secure handling of Beneficiaries Personal Data & Sensitive Personal Data in compliance with all laws and regulations applicable.\
- **Pradhan Mantri Aarogya Mitra (PMAM):** The scheme is creating a cadre of certified frontline health service professionals called Pradhan Mantri Aarogya Mitras (PMAMs) who will be primary point of facilitation for the beneficiaries to avail treatment at the hospital and thus, act as a support system to streamline health service delivery.

71st Round of National Sample Survey Organization (NSSO) has found

- 85.9% of rural households and 82% of urban households have no access to healthcare insurance/assurance.
- More than 17% of Indian population spend at least 10% of household budgets for health services.
- Catastrophic healthcare related expenditure pushes families into debt, with more than 24% households in rural India and 18% population in urban area have met their healthcare expenses through some sort of borrowings.

Significance of the PMJAY

- **Road to universal health coverage:** According to NITI Aayog, the scheme would increase the public spending on health to around 4 per cent from approximately 1 per cent at present, thereby, dramatically improving provision of healthcare for the poor.
- **Catalyst for transformation:** It will be an enabler of quality, affordability and accountability in the health system.
 - The empaneled hospitals have been tasked to follow the treatment guidelines. Patient outcomes will be monitored.
 - Another impact of the PMJAY will be rationalisation of the cost of care in the private sector. With an increase in demand created, it is expected that private sector will move from a low volume-high return paradigm to a high volume-fair return (and higher net profit) model.
- The earnings of public hospitals under PMJAY will be available for their upgradation and also for incentivising the provider teams as these funds will be deposited with **the Rogi Kalyan Samitis**. Up to 30 per cent of the overall public spending on the scheme may return to public sector institutions.
- **Poverty-reducing measure:** Each year, six to seven crore people, above the poverty line, fall below it because of health-related expenses. PMJAY would reduce this number significantly. More than a third of the out-of-pocket expenditure (around Rs 5,000 per household) is due to inpatient hospitalisations. One out of eight families have to incur health expenditure of more than 25 per cent of the usual household expenditure each year. PMJAY will ease this burden on the poor.
- **Employment Creation:** The scheme will create lakhs of jobs for professionals and non-professionals – especially women. It will give a boost to the health technology industry.
- NHPM will **subsume** the on-going centrally sponsored scheme "**Rashtriya Swasthya Bima Yojana**" (RSBY) and **Senior Citizen Health Insurance Scheme** (SCHIS).

Concerns ahead

- NITI Ayog estimates Rs 12,000 crore will be required to run the scheme. However, allocation of just ₹2,050 crore during the current year to the PMJAY cannot provide the promised cover to the large population sought to be included. Not all States and Union Territories are in a position to raise their own share, and a few have not even joined the scheme. The **challenge of funding**, therefore, remains.
- **Health is a state subject** under Indian constitution. State governments should regulate the hospital sector under the Clinical Establishments (Registration and Regulation) Act. The law broadly provides for standardisation of facilities and reasonable rates for procedures. Costs are a contested area between the care providers and the Centre, and many for-profit hospitals see the government's proposals as unviable.
- Union government scheme covers only the deprived beneficiaries as per the caste census, thus bringing down the number of people to be covered. But many schemes implemented by states have a **wider range of beneficiaries**. For instance, Karnataka's health insurance scheme covers all the residents of the state. This leads states hesitating adopting PMJAY.
- **Sustainability of insurance companies** has to be ensured. According to the Insurance Regulatory and Development Authority of India's data on incurred claims ratio (premium earned versus pay outs) for government-sponsored health schemes, it went up from 87 per cent in 2012-13 to 122 per cent in 2016-17. In case of PMJAY, the government has set a premium of Rs 1,050. Insurance companies find this amount very low to provide coverage. This would be more of an issue in states like Kerala where claims ratio is quite high.
- Though hospital care is a big expenditure, it is still a very small percentage of **people's Out of Pocket (OoP) expenses on healthcare**. People spend much more on illnesses that don't need hospitalisation and are not covered under insurance. NSSO 2014 round shows there was no relief from increasing health expenditure w.r.t 2004.
- Along with Insurance model focus must be on **strengthening the country's health infrastructure**. It would have a long-term impact. Globally, countries with adequate public health facilities have been successful in implementing health insurance schemes. e.g. Thailand, extensively focused on strengthening the public health infrastructure before rolling out its Universal Coverage Scheme in 2001.

Conclusion: The "best health care at the lowest possible cost" should be: inclusive; make health-care providers accountable for cost and quality; achieve a reduction in disease burden, and eliminate catastrophic health expenditures for the consumer. Ayushman Bharat – Pradhan Mantri Jan AarogyaYojana (AB-PMJAY) is a paradigm shift from sectorial, segmented and fragmented approach of service delivery through various national and State schemes to a bigger, more comprehensive and better converged and need based service delivery of secondary and tertiary care.

7.8. HIV/AIDS ACT, 2017

Why in News?

Health Ministry issues notification to bring **HIV/AIDS Act, 2017**, into force.

Problems faced by HIV Patients

Apart from the mental and physical trauma the HIV/AIDS patients go through, there are various problems that they face socially, like-

- **Stigma and Discrimination-** Sometimes, people with HIV/AIDS are abandoned by their families and are forced to live in destitution, resulting in psychological devastation.
- **Social and Economic-** The main social and economic impacts for people living with HIV are loss of labour or education due to illness and increased expense of healthcare and transport. The compounding of these impacts often leads to increased levels of poverty, food insecurity and nutrition problems.

This called for legal recourse to protect the rights and interest of people suffering from HIV/AIDS.

Salient features of the Act

- **Prohibition of Discrimination-** It lists various **grounds on which discrimination** against HIV positive persons and those living with them is prohibited. These include the **denial, termination, discontinuation or unfair treatment** with regard to employment, education, health care, residing or renting property, standing for public or private office, and insurance.
 - The requirement for **HIV testing as a pre-requisite for obtaining employment** or accessing health care or education is prohibited.
 - It prohibits individuals from publishing information or advocating feelings of **hatred** against HIV positive persons and those living with them.
- **Informed consent-** No HIV-affected person can be subject to medical treatment, medical interventions or research without informed consent. Further, no HIV positive woman, who is pregnant, can be subjected to sterilisation or abortion without her consent.
- **Guidelines for testing centres-** No HIV test shall be conducted or performed by any testing or diagnostic centre or pathology laboratory or blood bank, unless such centre or laboratory or blood bank follows the guidelines laid down for such test
- **Disclosure of HIV status-** No person is compelled to disclose his HIV status except by an order of the court. A breach of violation attracts a jail sentence of up to two years or a fine of up to Rs 1 lakh, or both.
 - Every establishment is obligated to **keep HIV-related information protected**. Every HIV-positive person is compelled to take reasonable precautions to prevent the transmission of HIV to other persons.
- **Confidentiality of data-** Every establishment keeping the records of HIV-related information of protected persons shall adopt data protection measures in accordance with the guidelines to ensure that such information is protected from disclosure
- **Central and State Government to take measures-** The state and Centre shall take all such measures for prevention of spread of HIV or AIDS, in accordance with the guidelines and must make diagnostic facilities, anti-retroviral therapy and opportunistic infection management available to all HIV-infected people and ensure wide dissemination of the same.
- **Welfare Measures & protection of children-** Apart from facilitating better access to welfare schemes to affected persons the government shall also take appropriate steps to protect the property of children affected by HIV or AIDS for the protection of property of child affected by HIV or AIDS.
 - A person between the age of 12 to 18 years who is mature in managing the affairs of his HIV or AIDS affected family shall be competent to act as a guardian of another sibling below 18 years of age.
- **Isolation of Person-** It prohibits isolation of segregation of an HIV-positive person. Every HIV-positive person has the right to reside in a shared household and use facilities in a non-discriminatory manner.
- **Ombudsmen-** Every state has to appoint one or more Ombudsmen to inquire into violations of the provisions of the Act. Within 30 days of receiving a complaint, the Ombudsman is required to pass an order as he deems fit. Failing to comply with the orders of the Ombudsman attracts a penalty of up to Rs 10,000.

However, it has been argued that the provisions only protect infected individuals from prejudiced behaviour and attitudes. Communities that are vulnerable to infection, individuals who are yet to be tested and kin of those infected are still subjected to stigma and biased perspectives. Further, there have been instances of shortage of medicines related to HIV/AIDS.

Related Data

- India has the **third largest HIV-infected** population with an estimated 2 million people. The country **aims to decrease** new infections by 75 per cent between 2010 and 2020 and eliminate AIDS by 2030.
- National AIDS Control Organisation (NACO) noted that the **rate of decline** in annual new HIV infections has been relatively slower in recent years.
- However, **impact of the HIV/AIDS control programme** has been significant, with more than an 80 per cent decline in estimated new infections from the epidemic's peak in 1995
- Estimated AIDS-related deaths declined by 71 per cent since its peak in 2005.

Way forward

- The need is to adopt a **holistic approach to successfully combat discrimination** against the infected and the vulnerable and create safe spaces for them.
- The next important step will be **public education** as acceptance of HIV/AIDS patients in society is still a challenge.
- A streamlined process of procurement and storage of medicines related to HIV/AIDS.

Other Steps taken by the Government

- National Strategic Plan 2017-24 and Mission "SAMPARK", to trace those who are Left to Follow Up and are to be brought under ART services.
- Government launched a Central Sector Scheme - **National AIDS Control Programme (NACP)**.
- India has successfully **achieved the 6th Millennium Development Goal** (MDG 6) of halting and reversing the HIV epidemic.
- For preventing HIV/AIDS transmission from mother to child
 - **Prevention from Parent to Child Transmission (PPTCT) programme** have been integrated with the RCH programme.
 - **PALS (PPTCT ART Linkages Software) System** has also been launched to maintain details of all HIV positive pregnant and breast-feeding women and their new-born babies.
- Government would be implementing the **90:90:90 strategy** as adopted by UNAIDS. It is a new HIV treatment that lays the groundwork to end the AIDS epidemic.
- **HIV Sensitive social protection portal** has been launched to help officials and counsellors.
- India **has extended support to the African countries** in their fight against HIV-AID which reflects India's global commitment.

7.9. PROGRAM FOR INTERNATIONAL STUDENT ASSESSMENT (PISA)

Why in news?

Recently Ministry of Human Resource Development has decided to end the boycott of PISA formally.

More on News

- India had stayed away from the assessment when it was ranked dismally low in 2012 and 2015 and 72nd among 74 countries in 2009.
- India will send its officers to Paris to negotiate India's terms of participation in 2021 with OECD as it has been realised that education is not about rote learning.
- Unlike 2009, when Tamil Nadu and Himachal Pradesh were assessed, Union Government will request OECD to assess Chandigarh in 2021.

Organisation for Economic Cooperation and Development

- It is an intergovernmental economic organisation which aims to promote policies that will improve the economic and social well-being of people around the world.
- It has 36 member countries and was founded in 1960 by 18 European nations plus the United States and Canada.
- India is not a member of OECD.

About PISA

- It is an international assessment that measures 15 years old students' reading, mathematics, science literacy and even innovative subjects like collaborative problem solving and money literacy every three years.
- By design, PISA emphasizes functional skills that students have acquired as they near the end of compulsory schooling.
- It was first conducted in 2000 and is coordinated by Organisation for Economic Cooperation and Development (OECD) and is conducted in the United States of America by NCES.
- It assesses students in 80 countries and education system and helps to understand the education system and how it can be improved. The result is shown not individually but it shows a national mean score. Its goal is to provide outcomes of learning and not outcomes of schooling.

7.10. SWACHHATA HI SEVA CAMPAIGN

Why in news?

Recently, Swachhata Hi Seva (SHS) Campaign was launched.

About the Campaign

- It is a (jan andolan) the second edition of the campaign launched in 2017, which aims at accelerating the vision for a Clean India.
- Objectives of SHS
 - **Accelerate** the momentum of Swachh Bharat in the run-up to its 4th anniversary.
 - **Re-energise** the Swachh Bharat Jan Andolan and lay down the foundation of sustainability
 - **Reinforce** the concept of “Sanitation as everyone’s business”
 - Commence Mahatma Gandhi’s 150th birth year celebrations with a **nationwide campaign**
- It also aims at engaging shramdan activities with huge community mobilisation through grassroot swachhata champions such as woman sarpanches, students, film celebrities, sports persons etc.
- The Campaign also aims to engage with media which has been playing crucial role in creating awareness about the Swachh Bharat Mission.

Swachh Bharat Abhiyan or Clean India Campaign

- It is a nationwide campaign and the biggest ever cleanliness drive in the country.
- The goal is to achieve Swachh Bharat by 2019, as a tribute to the **150th Birth Anniversary of Mahatma Gandhi**, by improving the levels of cleanliness in rural areas and making Gram Panchayats Open Defecation Free (ODF).
- Specific Objectives:
 - Elimination of open defecation.
 - Conversion of insanitary toilets to pour flush toilets.
 - Eradication of manual scavenging.
 - 100% collection and scientific processing/disposal/reuse/recycling of municipal solid waste.
 - A behavioral change in people regarding healthy sanitation practices
 - Generation of awareness among citizens about sanitation and its linkages with public health.
 - Supporting urban local bodies in designing, executing and operating waste disposal systems.
 - Facilitating private-sector participation in capital expenditure and operation and maintenance costs for sanitary facilities.

8.1. BATTLE OF HAIFA

Why in news?

The Embassy of India held a ceremony in Haifa to mark the Centenary of the Battle of Haifa when on 23 Sep 1918, **Indian soldiers** from the **Jodhpur, Mysore and Hyderabad Lancers** liberated the city of Haifa.

Indian participation in World War I

- In World War I the Indian Army (alongside Britain) fought against the German Empire on the Western Front, in East Africa, Mesopotamia, Egypt and Gallipoli.
- It included 3.7 million tonnes of supplies, over 10,000 nurses, 1,70,000 animals, £146m of Indian revenue, and political support including that of Gandhi, who helped recruit Indian volunteers in the face of nationalist opposition.
- The **Indian Army** was **the largest volunteer force in the world**, which provided 1.5 million troops to serve overseas from regions such as the Punjab, Uttar Pradesh, Maharashtra, Tamil Nadu and Bihar.
- Of these men, around 50,000 died, 65,000 were wounded, and 10,000 were reported missing, while 98 Indian army nurses were killed.
- Volunteering offered **a chance to break through the caste system**, because becoming a soldier paid well and it meant becoming part of the 'warrior' caste, which gave high status in society.
- Indian forces had their **greatest impact in West Asia**, with 60 per cent of all Indian troops serving in Mesopotamia (modern day Iraq), and another 10 per cent in Egypt and Palestine.
- **India Gate in New Delhi** commemorates the 70,000 Indian soldiers who lost their lives fighting for the British Army during the World War I. The memorial bears the names of more than 13,516 British and Indian soldiers killed in the Northwestern Frontier in the Afghan war of 1919.
- India's contribution to the British became one of the reasons for passing the Montague-Chelmsford Reforms which introduced dyarchy to the provinces (meaning Indian representatives would be elected and would represent the province to the British Crown.)
- Following this period, Gandhi launched his first India-wide campaign of civil disobedience against British authority in February 1919. It was not driven by anti-Western or anti-British sentiment per se, but by the pursuit of self-determination.

Haifa

- It is third largest city in Israel.
- It is home to the Bahá'í World Centre, a UNESCO World Heritage Site and a destination for Bahá'í pilgrims (one of the religious group in Israel).
- The Indian cavalry brigades fighting under the leadership of British General Edmund Allenby helped liberate Haifa from the clutches of the Turkish-German forces in 1918

8.2. PARYATAN PARV 2018

Why in news?

The Union Ministry of Tourism recently organized the second edition of “**Paryatan Parv**”- a nation-wide celebration of Tourism.

About Paryatan Parv

- **Paryatan Parv** is being organized with the objective of drawing focus on the benefits of tourism, showcasing the cultural diversity of the country and reinforcing the principle of “Tourism for All”.
- **Components of Paryatan Parv**
 - **Dekho Apna Desh:** It will encourage Indians to visit their own country. It will include video, photograph and blog competitions visited during event, stories of India through Travelers’ Eyes to promote tourism.
 - **Tourism for All:** It will promote tourism events at sites across all States in country. These will mainly be People’s events with large scale public participation. The activities at these sites will include Cultural Programmes of Dance, Music, Theatre, Tourism Exhibitions showcasing culture, cuisine and handicrafts and handlooms etc.
 - **Tourism & Governance:** It will have interactive sessions and workshops with stakeholders on varied themes like Skill Development in Tourism Sector, Innovation in Tourism, and Developing Rural Tourism in locations near established destinations.
- **India Tourism Mart 2018(IMT-2018):** The Tourism Ministry in partnership with the Federation of Associations in Indian Tourism and Hospitality (FAITH) will organize the first ever ITM 2018 during Paryatan Parv.
- **FAITH** is the apex organization of all the important trade and hospitality associations of the country.
 - The objective of the event is to create an annual Global Tourism Mart for India in line with major international travel marts being held in countries across the world.
 - The Mart will provide a platform for all stakeholders in the tourism and hospitality industries to interact and transact business opportunities.

10.1. CHAMPION OF THE EARTH AWARD

Why in news?

Recently, Prime Minister Narendra Modi was awarded highest environmental honour, the “Champion of the Earth Award”.

More on news

- He was awarded for his unprecedented pledge to eliminate all single-use plastic in India by 2022.
- Along with him, French President **Emmanuel Macron** were recognised in the ‘**Policy Leadership Category**’ for their “pioneering work in championing” the International Solar Alliance.
- **Cochin International Airport** was also awarded ‘**Entrepreneurial Vision**’ Award for its leadership in the use of sustainable energy.

Champions of the Earth Awards

- The award is United Nation’s highest environmental honour which recognises people for their actions which have had a transformative impact on the environment.
- The awards were launched in 2005 by United Nations Environment Programme (UNEP). It recognises visionary people and organisations that exemplify leadership and advocate actions on sustainable development, climate change and a life of dignity for all.
- The award supports the process by illustrating that the transition to a low-carbon, resource-efficient, inclusive and sustainable world is in progress.

Related Information

International Solar Alliance (ISA)

- It is an Indian initiative which was launched in 2015 by Prime Minister Narendra Modi and French Prime Minister Emmanuel Macron on the sidelines of COP21 held in Paris.
- ISA is an inter-governmental organisation of countries between Tropic of Cancer and Tropic of Capricorn to promote solar energy in member nations.
- It aims at addressing obstacles to deployment at the scale of solar energy through better harmonisation and aggregation of demand from solar rich countries lying either fully or partially along Tropic of Cancer and Tropic of Capricorn.

Other Initiatives by India government include

- Indian sustainable policy implementation and green grassroots initiatives such as new cooking gas connections, installation of LED Bulbs, push towards renewable energy which propelled India to become fifth largest producer of renewable energy worldwide etc.

10.2. MAGSAYAW AWARDS

Why in news?

Two Indian nationals, **Bharat Vatwani** and **Sonam Wangchuk** were given the Ramon Magsaysay award.

More on News

- Magsaysay awards is popularly known as **Asia's Nobel Prize**.
- Established in 1957, the Ramon Magsaysay Award is Asia’s highest honor. It celebrates the memory and leadership example of the third Philippine president, Ramon Magsaysay after whom the award is named, and is given every year to individuals or organizations in Asia who manifest the same selfless service and transformative influence that ruled the life of the late and beloved Filipino leader.
- Vatwani has dedicated his life for **rescuing mentally ill people** from the streets of India who number around 400,000 according to estimates and providing them with shelter and treatment through his Shraddha Rehabilitation Foundation.
- Wangchuk has been recognised for “his uniquely systematic, collaborative and community driven reform of learning systems in remote northern India, thus **improving the life opportunities of Ladakhi youth**, and his constructive engagement of all sectors in local society to harness science and culture creatively for economic progress, thus setting an example for minority peoples in the world.

10.3. AAPOORTI APP

Why in News?

Indian Railways launched a new mobile app called Aapoorti of Indian Railways e-procurement system (IREPS).

About the APP

- It is a part of digitization of Indian Railways supply chain network under its e-procurement system i.e. IREPS.
- It will provide data and information about e-tendering and e-auctioning activities of Indian railways.
- It will help to bring ease of doing business, transparency and efficiency in Indian Railways.

Indian Railways e-procurement system (IREPS)

- It is an official portal of Indian Railways, for procurement of goods, works and services, sales of material and leasing of assets through e-tendering, e-auctioning or reverse auction.
- It is developed and maintained by Centre for Railways Information System (CRIS).
- It is the largest G2B portal.
- It was awarded 'Vigilance Excellence Award 2017' by Central Vigilance Commission.

10.4. UN GLOBAL MEDIA COMPACT

Why in News?

Recently more than 30 organizations from across the world including India's **Ministry of Information and Broadcasting** have come together to form a global media compact.

More about the compact

- It is an initiative of the United Nations, in collaboration with the UN Foundation.
- It is aimed at advancing awareness regarding Sustainable Development Goals (SDGs) to be achieved by 2030.
- It seeks to inspire organisations around the world to create content partnerships with the UN and leverage their resources and creative talent to advance the Goals.
- It will ensure accountability in the Governments across the world to make efforts for achieving the sustainable Goals target by 2030.

10.5. ELEPHANT BIRD VOROMBE TITAN

Why in news?

Recently, **Vorombe titan** was named the world's largest bird.

More on news

- According to a study released by Zoological Society of London, it is one of species of Elephant Bird and is believed to be 3 meters high and weighs upto 800 kg, mainly found in Madagascar and is **extinct now**.
- They were most important birds in the history of islands evolution. This is because large bodied animals have impact on the wider ecosystem as they control it via controlling vegetation through eating plants, spreading biomass and dispersing seeds through defecation.
- The ecosystem of Madagascar still has impact of the extinction of the bird.
- Elephant birds are an extinct group of colossal flightless birds that roamed Madagascar during the Late Quaternary.
- Earlier, **Aepyornis Titan** was known as largest ever Elephant Bird in the year 1984.